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**PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL GROUP
(ROUNDS III & IV)**

PUBLIC INVESTMENT ANALYSIS AND MANAGEMENT

NOVEMBER 16-30, 2006/ DECEMBER 6-19, 2006

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**PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL GROUP
(ROUNDS III & IV)

PUBLIC INVESTMENT ANALYSIS AND
MANAGEMENT**

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

PRIORITIZATION OF INVESTMENT PROGRAMS AND PROJECTS

EXERCISE: SENSITIVITY ANALYSIS

MID-TERM TEST

DAY 7: NOVEMBER 27/ DECEMBER 14

ECONOMIC ANALYSIS OF PROJECTS: IDENTIFICATION, QUANTIFICATION AND VALUATION OF COSTS AND BENEFITS

EXERCISE: SHADOW WAGE RATE AND SHADOW WAGE RATE FACTOR FOR UNSKILLED LABOR IN A GOVERNMENT RURAL PROJECT

DAY 8: NOVEMBER 28/ DECEMBER 15

ECONOMIC ANALYSIS OF PROJECTS: IDENTIFICATION, QUANTIFICATION AND VALUATION OF COSTS AND BENEFITS

DAY 9: NOVEMBER 29/ DECEMBER 18

IMPROVED PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT ANALYSIS IN THE PROJECT CYCLE: FROM KEY CONCEPTS TO PRACTICE – “PROJECT ANALYSIS: KEY CONCEPTS AND TOOLS”

EXERCISE: DISTRIBUTION OF PROJECTS EFFECTS

EXERCISE: IMPACT ON POVERTY REDUCTION

DAY 10: NOVEMBER 30/ DECEMBER 19

FINAL TEST

REPUBLIC OF AZERBAIJAN				
MINISTRY OF ECONOMIC DEVELOPMENT				
PUBLIC INVESTMENT POLICY PROJECT (PIPP)				
TRAINING WORKSHOP FOR TECHNICAL STAFF (ROUND III)				
November 16 - 30, 2006				
THE COURSE PROGRAM				
Date	Time	Course Topic	Practice/Class Discussion Topic	Practice Leader
16-Nov	9:00-10:30	Formulation of the PIP as a Projects Planning Framework		
	11:00-12:30	Sector Strategic Development Planning		
	13:30-15:00	Integrated project Analysis	Discussion of Course Topic wrt the sample projects	
20-Nov	9:00-10:30	Preparation and Approval of the PIP		
	11:00-12:30	Joint/PIP Call Circular	Filling in the Joint/PIP Call Circular for the sample projects	Hadji Husseynov
	13:30-15:00	Preparation & Approval of the PIP (cont.)	Negotiation of Joint/PIP CC between LMs and MOED/MOF	Nigar Ismaylova
21-Nov	9:00-10:30	Processing Projects into the PIP	Project Identification and Project Concept Paper w.r.t. the sample projects	Ramil Maharramov
	11:00-12:30	Processing Projects into the PIP (cont.)	Preparation and Processing of Pre-Feasibility Report w.r.t. the sample projects	Hadji Husseynov & Nigar Ismaylova
	13:30-15:00	Preparation and Approval of Project Appraisal Document	Application of a good PAD test to the sample projects	Ramil Maharramov
22-Nov	9:00-10:30	Prioritization of Projects: Macro- & Micro-Policy-Based Prioritization		
	11:00-12:30	Policy-Based Prioritization (cont.)	Ranking and Weighting Systems	Bakhish Ahmadov
	13:30-15:00	Quantitative Prioritization: Financial Analysis of Projects		
23-Nov	9:00-10:30	Financial Analysis of Projects (cont.): Some Analytic Concepts	Discussion w.r.t. the sample projects	Nigar Ismaylova
	11:00-12:30	Financial Analysis of Projects (cont.): FIRR and NPV	Calculation of FIRR and NPV for the Azerenergy Project	Nigar Ismaylova
	13:30-15:00	Financial Analysis (cont.): Discounting	Discounting and IRR/NPV	Elvin Efendi

Date	Time	Course Topic	Practice/Class Discussion Topic	Practice Leader
24-Nov	9:00-10:30	Financial Analysis (cont.): Sensitivity and Risk Analysis	Sensitivity and Risk Analysis	Bakhish Ahmadov
	11:00-12:30	Financial Analysis of Non-Commercial Projects	Discussion on the sample projects	Hadji Husseyinov
	13:30-15:00	Mid-Term Test		Sabira Shihaliyeva
27-Nov	9:00-10:30	Economic Analysis of Projects: Valuation of Economic Costs and Benefits		
	11:00-12:30	Shadow Prices of Traded and Non-Traded Goods and Services (conversion factors)		
	13:30-15:00	Shadow Price of Land; Shadow Wage Rate	Shadow Wage Rate	Elvin Efendi
28-Nov	9:00-10:30	Accounting Rate of Interest: Economic Discount Rate		
	11:00-12:30	Shadow Exchange Rate	Discussion on its Policy Implications (growth of the non-oil sectors)	Bakhish Ahmadov & Elvin Efendi
	13:30-15:00	Economic Viability: A Suggested Approach		
29-Nov	9:00-10:30	Social Analysis of Projects	Distribution of Benefits and Poverty Impact	Elvin Efendi
	11:00-12:30	Sustainability of Projects: Fiscal and Environment Analysis	Environmental Analysis	Yashar Mammadov
	13:30-15:00	Institutional Analysis of Projects		Yashar Mammadov
30-Nov	9:00-10:30	Final Test		Sabira Shihaliyeva
	11:00-12:30	Graduation Ceremony & Tea Party		Sabira Shihaliyeva
November 16 - 30, 2006	10:30-11:00	Coffee Break		Sabira Shihaliyeva & Nizami Javadov
	12:30-13:30	Lunch Break		

REPUBLIC OF AZERBAIJAN				
MINISTRY OF ECONOMIC DEVELOPMENT				
PUBLIC INVESTMENT POLICY PROJECT (PIPP)				
TRAINING WORKSHOP FOR TECHNICAL STAFF (ROUND IV)				
December 6 - 19, 2006				
THE COURSE PROGRAM				
Date	Time	Course Topic	Practice/Class Discussion Topic	Practice Leader
December 6th Wednesday	9:00-10:30	Formulation of the PIP as a Projects Planning Framework		
	11:00-12:30	Sector Strategic Development Planning		
	13:30-15:00	Integrated project Analysis	Discussion of Course Topic wrt the sample projects	
December 7th Thursday	9:00-10:30	Preparation and Approval of the PIP		
	11:00-12:30	Joint/PIP Call Circular	Filling in the Joint/PIP Call Circular for the sample projects	Hadji Husseynov
	13:30-15:00	Preparation & Approval of the PIP (cont.)	Negotiation of Joint/PIP CC between LMs and MOED/MOF	Nigar Ismaylova
December 8th Friday	9:00-10:30	Processing Projects into the PIP	Project Identification and Project Concept Paper w.r.t. the sample projects	Ramil Maharramov
	11:00-12:30	Processing Projects into the PIP (cont.)	Preparation and Processing of Pre-Feasibility Report w.r.t. the sample projects	Hadji Husseynov & Nigar Ismaylova
	13:30-15:00	Preparation and Approval of Project Appraisal Document	Application of a good PAD test to the sample projects	Ramil Maharramov
December 11th Monday	9:00-10:30	Prioritization of Projects: Macro- & Micro-Policy-Based Prioritization		
	11:00-12:30	Policy-Based Prioritization (cont.)	Ranking and Weighting Systems	Bakhish Ahmadov
	13:30-15:00	Quantitative Prioritization: Financial Analysis of Projects		
December 12th Tuesday	9:00-10:30	Financial Analysis of Projects (cont.): Some Analytic Concepts	Discussion w.r.t. the sample projects	Nigar Ismaylova
	11:00-12:30	Financial Analysis of Projects (cont.): FIRR and NPV	Calculation of FIRR and NPV for the Azerenergy Project	Nigar Ismaylova
	13:30-15:00	Financial Analysis (cont.): Discounting	Discounting and IRR/NPV	Elvin Efendi

Date	Time	Course Topic	Practice/Class Discussion Topic	Practice Leader
December 13th Wednesday	9:00-10:30	Financial Analysis (cont.): Sensitivity and Risk Analysis	Sensitivity and Risk Analysis	Bakhish Ahmadov
	11:00-12:30	Financial Analysis of Non-Commercial Projects	Discussion on the sample projects	Hadji Husseyinov
	13:30-15:00	Mid-Term Test		Sabira Shihaliyeva
December 14th Thursday	9:00-10:30	Economic Analysis of Projects: Valuation of Economic Costs and Benefits		
	11:00-12:30	Shadow Prices of Traded and Non-Traded Goods and Services (conversion factors)		
	13:30-15:00	Shadow Price of Land; Shadow Wage Rate	Shadow Wage Rate	Elvin Efendi
December 15th Friday	9:00-10:30	Accounting Rate of Interest: Economic Discount Rate		
	11:00-12:30	Shadow Exchange Rate	Discussion on its Policy Implications (growth of the non-oil sectors)	Bakhish Ahmadov & Elvin Efendi
	13:30-15:00	Economic Viability: A Suggested Approach		
December 18th Monday	9:00-10:30	Social Analysis of Projects	Distribution of Benefits and Poverty Impact	Elvin Efendi
	11:00-12:30	Sustainability of Projects: Fiscal and Environment Analysis	Environmental Analysis	Yashar Mammadov
	13:30-15:00	Institutional Analysis of Projects		Yashar Mammadov
December 19th Tuesday	9:00-10:30	Final Test		Sabira Shihaliyeva
	11:00-12:30	Graduation Ceremony & Tea Party		Sabira Shihaliyeva
December 6 - 19, 2006	10:30-11:00	Coffee Break		Sabira Shihaliyeva & Nizami Javadov
	12:30-13:30	Lunch Break		

Dövlət İnvestisiya Siyasəti Layihəsi
Texniki İşçilər üçün Təlim (Blok III)
16-30 noyabr 2006-cı il, İİM

İştirakçıların Siyahısı

No.	Adı	Vəzifə/Şöbə	Nazirlik/Təşkilat	Kontakt Nömrələr	Gün 1	Gün 2	Gün 3	Gün 4	Gün 5	Gün 6	Gün 7	Gün 8	Gün 9	Gün 10
1	Natiq Əliyev	Strateji Təhlil, Planlaşdırma və Kadrların İdarə Olunması Şöbəsinin Aparıcı Məsləhətçisi	Təhsil Nazirliyi	(050) 446 2173 496 1655										
2	Namiq Məmmədov	Strateji Təhlil, Planlaşdırma və Kadrların İdarə Olunması Şöbəsinin Aparıcı Məsləhətçisi	Təhsil Nazirliyi											
3	Rəsul Paşayev	Elm, Layihə, Tikinti və Xarici Əlaqələr Şöbəsinin Müdir Müavini	Meliorasiya və Su Təssərüfatı ASC	558 9266 493 1363										
4	Rəfail Məmmədov	Tikilməkdə olan Meliorasiya və İrriqasiya Obyektlərinin Birləşmiş Müdiriyyətinin Şöbə Müdiri	Meliorasiya və Su Təssərüfatı ASC	356 6695 438 2304										
5	Telman Mustafayev	Tikilməkdə olan Meliorasiya və İrriqasiya Obyektlərinin Birləşmiş Müdiriyyətinin Baş Mütəxəssisi	Meliorasiya və Su Təssərüfatı ASC	438 2304										
6	Ruqiyyət Məmmədova	Böyük Məsləhətçi, Dövlət Zəmanəti ilə Alınan Kreditlərin, Texniki Yardım və Qrantların Alınması üzrə İşlərin Əlaqələndirilməsi Şöbəsi	Nazirlər Kabineti	329 9952 492 4102										
7	Aytən Nəzərova	Məsləhətçi, Dövlət Zəmanəti ilə Alınan Kreditlərin, Texniki Yardım və Qrantların Alınması üzrə İşlərin Əlaqələndirilməsi Şöbəsi	Nazirlər Kabineti	322 8606 492 7710										
8	Vüsal Əhmədov	Maşınqayırma və Metallurqiya Şöbəsinin Böyük Məsləhətçisi	Sənaye və Energetika Nazirliyi	513 2668										
9	Vüqar Ələkbərov	İnvestisiya Siyasəti və Sənaye Müəssisələrinin Yenidən Qurulması Şöbəsinin Məsləhətçisi	Sənaye və Energetika Nazirliyi	200 0190									yarım gün	

12	Tarana Gilinjkhanova	Leading Advisor, Economic Dept.	MOIE	431 8012															
13	Jeyhun Mammadov	Advisor, Dept. of Information Systems of Education Management	MOE	670 3632 496 3471															
14	Namig Mammadov	Leading Advisor, Dept. of Strategic Analysis, Planning and HR Management	MOE	451 3051 496 3193															
15	Peri Amirova	Economist, Economic Dept.	MOH	050- 4679408 493 1540															
16	Zakir Ahmadov	Economist, Economic Dept.	MOH																
17	Tahir Ismaylov	Senior Advisor, Dept. of Science, Project, Construction and International Relations	CIWE	493 8011															
18	Vusal Samadov	Senior Advisor, Dept. of Science, Project, Construction and International Relations	CIWE	669 5747 493 1363															
19	Suleyman Jalilov	Senior Advisor, Dept. of Preparation of Investment Programs and Projects	MOA	055- 7702213 498 1208															
20	Anar Mirzoyev	Advisor, State Credit Agency for Agriculture	MOA	354 0093															
21	Namig Nabiyev	Deputy Head of Finance and Investment Dept., TELERADIO Production Unit (Company)	MOCIT	218 7447 439 8795															
22	Gojayev Emil	Leading Scientific Associate,	CER	050- 4481559 497 4754															
23	Guliyev Shovgi	Leading Scientific Associate,	CER	386 7564															
24	Shalala Tagiyeva	Economist, Financial and Wage Dept.	MOCIT	321 2666 421 8599															
Total					18	21	20	22	21	23	21	20	20	23					

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**SECTOR STRATEGIC
DEVELOPMENT PLANNING**
As a Framework for Project Development



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Introductory Questions

- **What is the place and role of SSDP in the planning process of Azerbaijan?**
- **Briefly describe (in bullet points) the current planning process in Azerbaijan.**
- **Please identify the strengths, if any, and weaknesses of the current planning practices in Azerbaijan.**
- **The two case projects noted at the beginning of this course should be used as references for discussing the above questions.**



SECTOR STRATEGIC DEVELOPMENT PLANNING

As a Framework for Project Development

Development Planning (existing procedures)

Macroeconomic Planning:

- Macroeconomic objectives and strategies are not explicitly considered, within a consistency framework, for SPPRS and SPSEDR;
- Sector inputs are just inserted in SPPRS/SPSEDR w/o consistency checks

Sector Planning:



- LM prepares its SSDP on basis of project submissions; sent it for approval to the COM, which gets views of other agencies, and then approves.
- No direct links with macro planning and budgetary process

Project Planning:



- No concerns for macroeconomic constraints and impacts
- Lack of benefit-cost analysis and resource constraint considerations (except externally-funded projects)



SECTOR STRATEGIC DEVELOPMENT PLANNING

As a Framework for Project Development

Major Current Weaknesses

- No unified **Guidelines** exist for preparation of SSDPs
- SSDPs are **not based on or linked** to a national development framework
- SSDPs are not subject to **strategic constraints** or reconciliation through an integrated coordination process
- The **SSDP – budget relationship** is non-existent
- Limited, if any, **participation of stakeholders**
- Almost no **monitoring and evaluation**



SECTOR STRATEGIC DEVELOPMENT PLANNING

Coordinated Development Planning (proposed guidelines)

Macro Planning:

- National and sector development goals and strategies formulated
- Sector resource limitations established

Sector Planning:

- Sector strategic plans for 10 years developed per National goals
- Medium-term (4 yrs) sector programs aligned with MTEF
- Coordination, information-sharing and updating

Programs/ Project Planning:

- Investment proposals consistent with macro-planning and sector development priorities
- Investment programs have clearly defined goals and objectives
- Projects are appraised and prioritized by per the techniques of benefit-cost analysis and prioritized



SECTOR STRATEGIC DEVELOPMENT PLANNING

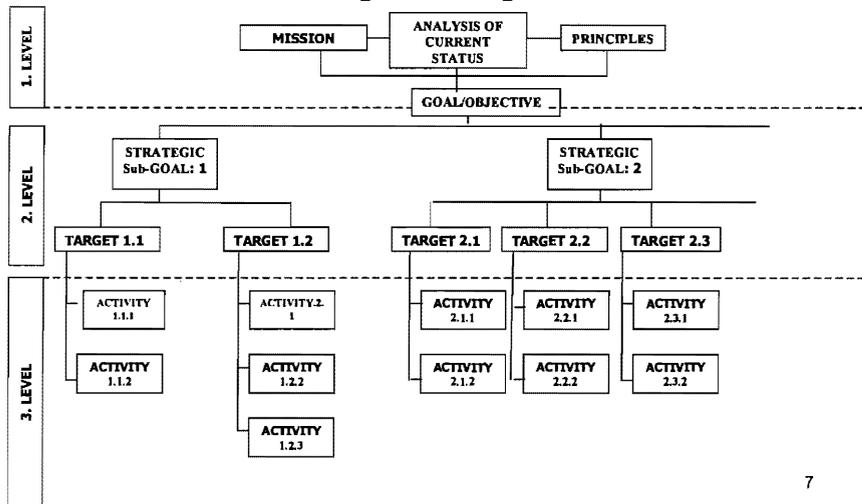
As a Framework for Project Development

Conditions for Successful Sector Development Planning

- SSDPs should formulate sector development objectives within the established National and Sectoral Development Framework.
- SSDPs need to be dynamic and adaptable to GOAZ's mid-term development priorities and resource availabilities.
- PIP should stem from SSDPs, with clear delineation of capital and recurrent expenditures
- Prioritize and sequence all projects
- Consult all stakeholders and counterparts
- Establish performance indicators and benchmarks for Monitoring and Evaluation



Sector Strategic Planning Structure



SECTOR STRATEGIC DEVELOPMENT PLANNING
As a Framework for Project Development

Sector Development Plans – Recommendations

- Implement a more synchronized and integrated approach between planning, programming and budgeting through a Joint Call Circular.
- Have sector “Goals – Targets – Activities – Projects” linked to each other within a result-oriented process that will gradually lead to performance program budgeting.
- The President/COM should provide, through HPPC, MOED and MOF, a definite guidance and coordination to reconcile top-down planning (MTEF, MTEFF, SPPRSD) discipline with bottom-up (projects) programming through SSDPs.
- Accelerate a program of Monitoring and Evaluation through a well-defined results measurement framework.



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THE PUBLIC INVESTMENT POLICY PROJECT

**Training Workshop for Technical Staff on
Integrated Project Analysis**

**FORMULATION OF THE PUBLIC
INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**



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**FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**

Introduction

- How do you define “public investment”?
- Is investment more important than consumption or not? Why?
- Accordingly, should GOAZ use public investment as a policy tool?
- For answering the above questions, use as examples an energy and an education project.



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FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A PROJECTS PLANNING FRAMEWORK

Definition of Public Investment

- Investment = Final goods & services produced but not consumed in a given period and used in increasing the existing production capacity.
- Public investment = investment undertaken by the public sector agencies.
- Public sector = State agencies + LAs + Municipalities + SOEs.

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FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A PROJECTS PLANNING FRAMEWORK

Importance of Public Investment

- As part of total effective demand, stimulates production and affects economic stability.
- Increases the production capacity (growth).
- Improves technology, efficiency, and productivity
- Affects the future level, composition, and distribution of public and private consumption.
- Affects the level and structure of private investment.

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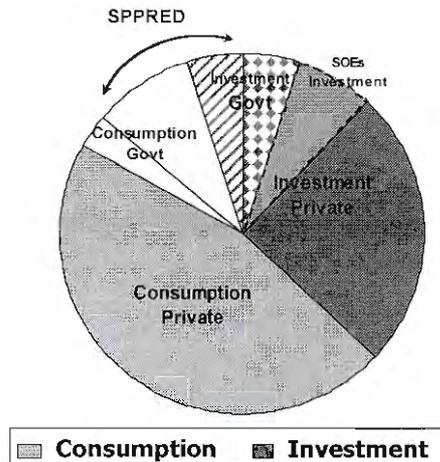
**FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**

Public Investment Policy

- Public investment will have all effects noted in the last slide whether we like them or not.
- Hence, we better try to program them rather than allow ad hoc decisions of the public agencies randomly shape them up.
- Also, the success of most other socio-economic policies of GOAZ depends on the level, composition, and distribution of public investments; hence, on the success of PIP.



AZERBAIJAN TOTAL RESOURCE USE IN 2004





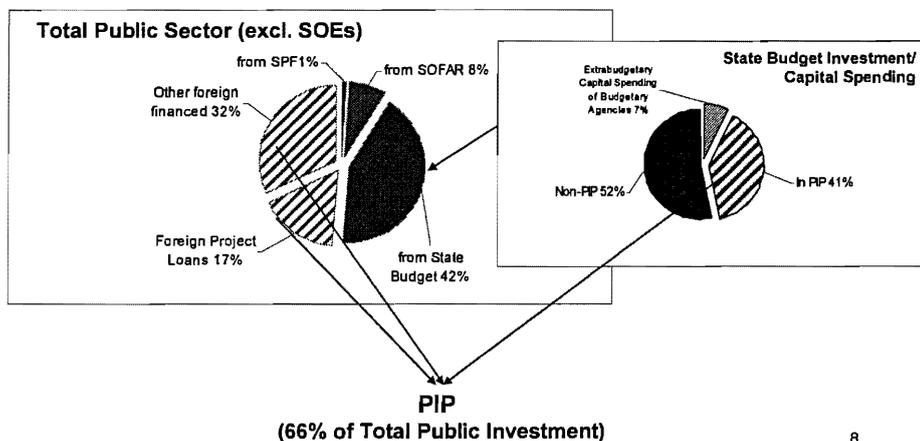
**FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**

Current Practice in Azerbaijan: Questions

- Do you think GOAZ has an effective Public Investment Policy or not? Why?
- Where and how is it formulated?
- How comprehensive do you think it is?
- Do LMs/Agencies get (need) effective guidance from GOAZ's PIP in project development and selection?



PUBLIC SECTOR INVESTMENT 2005 (PLANNED)





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**FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**

Current Practice in Azerbaijan: The Reality

- Total Public Sector investment is determined in a highly fragmented manner.
- There is not a comprehensive public investment policy formulation.
- The PIP is only a collection of some public investment projects selected on ad hoc basis.
- The present status of PIP deprives GOAZ of the opportunity to accelerate the social and economic development of the country.



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STAFF**

**INTEGRATED PROJECT ANALYSIS IN THE
PROJECT LIFE-CYCLE:**

**Linkages with SSDP, SPPRSD, SPSEDR,
Budget, and PIP**



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THE PROJECTS PLANNING PHASE

INTRODUCTORY QUESTIONS

- **What are the goals and functions of the projects planning at**
 - the sector level, and
 - the national (macro) level?
- **What should be the relationship among a sector's SDP and its submissions to the mid-term State Budget and PIP in terms of the sector's investment projects?**
- **Similarly, what should be the relationship between MTEF, SSDPs, SPPRSD, and SPSEDR, on the one side, and the MTEF and the mid-term Consolidated/State Budget, on the other, in terms of public investment projects?**
- **Please discuss the above w.r.t. our two case projects.**



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THE PROJECTS PLANNING PHASE

Project Goals and Functions

- The goals and functions of (e.g. rationale for) any investment project should be to meet the demand for its contribution to the success of the SSDP.
- This also implies that the proposed project also serves the objectives and strategies of the national and sectoral development framework.
- “Demand for a project” will, however, be meaningful and effective only if it is supported by necessary funding and not hampered by other constraints.

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THE PROJECTS PLANNING PHASE

Inter-Linkages between SSDP and Budget/PIP Through their Projects Content

- Social and economic developments envisaged by an SSDP could be realized only if the supporting investment projects are included in the PIP/Budget.
- Similarly, those projects included in the PIP/Budget w/o proper appraisal of them vis-à-vis their SSDPs are likely to lead to inefficient resource uses.
- So, isn't it obvious that the only sensible thing to do is to align each SSDP's next four years with its sector's submissions for the mid-term Budget and PIP?

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THE PROJECTS PLANNING PHASE

Inter-Linkages between SPPRSD/SPSEDR and SSDP/Budget/PIP

Through their Projects Content

- What is said in last two slides also applies to the relationship between SPPRSD/SPSEDR and SSDP/Budget/PIP because only in that case the poverty reduction and regional development objectives of GOAZ will be meaningful and realistic.
- In other words, all SPPRSD/SPSEDR activities should be supported by programs/projects which are also in the SSDPs/Budget/PIP, but no more and no less.
- Again, it is obvious that SSDPs should serve as the source of LMs' submissions for all other plan and budget documents, provided that SSDPs are drawn in line with guidance and instructions of the JCC.
- **Conclusion:** Planning, investment programming and capital budgeting form a circular process enveloping the project life-cycle as shown in the next slide.

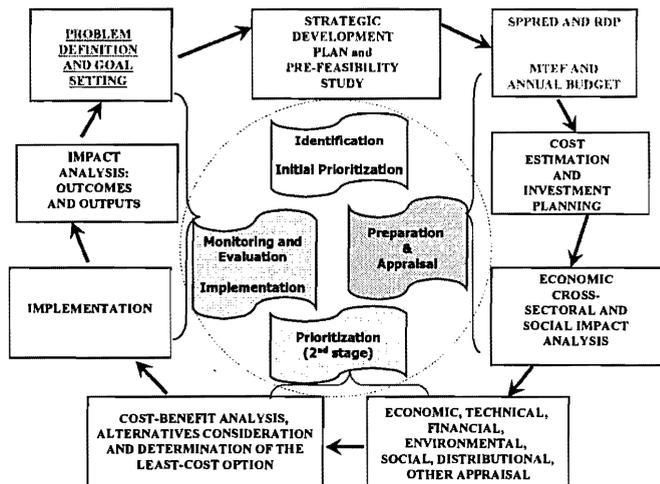
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PUBLIC INVESTMENT PROJECT LIFECYCLE





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TRAINING WORKSHOP FOR TECHNICAL STAFF

Preparation and Approval of PIP



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THE PREPARATION AND APPROVAL OF PIP

INTRODUCTORY QUESTIONS

- What should be the characteristic features of an effective and sound PIP in light of the previous slides and w.r.t.:
 - Its coverage of the public sector agencies;
 - Its coverage of the type of (capital) expenditures; and
 - The State Budget and the budgets of other public agencies.
- Should the PIP be a policy planning or capital budgeting instrument, or both?



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THE PREPARATION AND APPROVAL OF PIP

Characteristic Features of the PIP

- PIP should be universal-all inclusive in terms of coverage of:
 - Public sector agencies, and
 - All capital spending, whether in the form of a project or not.
- The PIP is not a “capital budget” and cannot serve as a source of spending authorization. It is instead a policy planning document, evaluating and guiding GOAZ’s use of public capital in most productive economic and social projects
- The PIP includes only those project and capital spending proposals that are found, on policy and cost-benefit criteria, to be in line with the national and sectoral development objectives and strategies.
- Once included in the PIP, the project and capital spending proposals can also be included in their sponsoring agencies’ budget proposals according to their own budget classification and presentation bases.

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THE PREPARATION AND APPROVAL OF PIP

The PIP as an Investment Policy Document: The Essential Questions

- Could anyone think of any good reason why GOAZ shouldn’t have an investment policy?
- Would everyone agree that there is need for it, and it should be MOED’s responsibility as its Charter says?
- What should be the focus of an analysis of GOAZ’s Public Investment Policy?

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THE PREPARATION AND APPROVAL OF PIP

The Focus of PIP as Investment Policy Document

- Analyze the recent and planned public investment policies and performances w.r.t.:
 - Sustained social and economic development with stabilization;
 - Changing the structure of asset ownership (i.e., privatization);
 - Desired transformation of production structure (e.g. non-oil growth);
 - Facilitating and guiding private sector investments.
- Analyze them to also see if they included the necessary mechanisms to help ensure:
 - Sound prioritization of investment programs and projects; and
 - Technical efficiency and sustainability of capital expenditures.

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THE PREPARATION AND APPROVAL OF PIP

Importance of the Joint/PIP Call Circular

- As a tool for effective integration of all plan and budget documents through:
 - Basing all instructions and requirements on the same MTEF & MTFP and sectoral priorities;
 - Issuing appropriately established sector spending ceilings;
 - Ensuring consistency among information requirements for SPPRSD, PIP, and Budget by putting them in one document, and similarly with LMs/Agencies' responses.
- The JCC will also help LMs and MOED to update their SSDPs and SPPRSD/SPSEDR, respectively.
- And, it is obvious that the sensible thing to do for each LM is to align its SSDP's next four years with its submissions for the mid-term Budget and PIP?

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THE PREPARATION AND APPROVAL OF PIP

Composition of the Joint Call Circular (JCC)

- Overview of the national and sectoral development objectives, strategies, priorities, and expected outcomes (based on MTEF);
- Guidance, sectoral ceilings, instructions, and information requests for the preparation of the next SPPRSD or its Annual Performance Review (or the Joint/SPPRSD CC);
- The Joint/PIP CC; and
- The Joint/Budget CC.

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**Public Investment
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THE PREPARATION AND APPROVAL OF PIP

Composition of the Joint/PIP CC

- Sector related information that will help MOED with formulation of the PIPP for the next four years;
- Information on each project that LMs propose for the next rolling PIP;
- Other capital spending proposals, which are not in the form of "public investment project".

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THE PREPARATION AND APPROVAL OF PIP

How Difficult for a LM to respond to the Joint/PIP CC?

- Not at all, particularly if there is a well-prepared SSDP with a well documented projects pipeline.
- Also, the “rolling” nature of the Budget and PIP and presence of many “on-going projects” make it easier.
- MOED’s PIP experts stand ready to help LMs with necessary technical support.

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**Public Investment
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THE PREPARATION AND APPROVAL OF PIP

Review and Negotiation of PIP

- MOED’s work on PIP is led and coordinated by the PIP Task Force comprising a Deputy Minister (economy) and all department and division heads with responsibility for PIP work.
- Each LM’s PIP submission will be reviewed and assessed by the relevant sector division of MOED;
- In this work, each sector division of MOED will also obtain views of all other relevant MOED divisions;
- Based on these, the MOED sector division chief will sound out LM’s responses to MOED’s initial assessments; and
- Each MOED sector division will submit to the PIP Task Force its evaluation, based on the above, of the relevant LM submission.

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**Public Investment
Policy Project**

THE PREPARATION AND APPROVAL OF PIP

Review and Negotiation of PIP (cont.)

- The Macroeconomic Policy Division of MOED will aggregate LMs' submissions and present to the PIP Task Force its assessment wrt MTEF/MTFF and inter-sector consistency;
- The PIP Task Force will then review each LM's PIP submission in light of the assessments of the MOED sector and Macroeconomic Policy Divisions and establish MOED's position;
- MOED Director in charge of PIP work will negotiate with LM;
- Any remaining differences will be taken up by the two Ministers;
- In the meantime, the Macroeconomic Policy Division will be drafting the policy section of the PIP in the light of MTEF, MTFF, and the above reviews of LMs' submissions by MOED divisions.

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THE PREPARATION AND APPROVAL OF PIP

Approval of the PIP

- MOED will send the final draft PIP to MOF for its concurrence;
- Since MOF was involved in the preparation of Joint/PIP CC and negotiations with LMs, agreement will be reached easily;
- MOED will then submit the draft PIP to HPPC for review and clearance before submission to COM for approval.
- HPPC will also act as the final referee for any remaining differences between any LM and MOED.
- Once approved by COM, the PIP will be circulated to all agencies for incorporation in their capital budgets.

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PUBLIC INVESTMENT PROJECT EVALUATION FORM

2.5 Project justification and analysis summary

<p>Strategic Context of Project*</p>	<p>-Linkages/relations to SSDP, SPPRS and SPSEDR;</p> <p>This project is designed with a view to supporting the State Program on Poverty Reduction and Economic Development (SPPRED), which also emphasizes the improvement of the quality and relevance of general education. The Program's focus on general education fits well into the SPPRED and the overall poverty reduction strategy under the new CAS since investments in general education are critical in the production of quality secondary education graduates and poverty alleviation. International evidence also suggests that social rates of return to general education are generally high. Without quality general education, the education system will have difficulties producing graduates who will become flexible workers in the emerging market economy. Primary and secondary education is also the foundation of quality vocational and tertiary education, which will help the country produce the skills and knowledge required by the emerging economy.</p> <p>-Contribution to Production in non-oil sectors;</p> <p>Long term benefits of the Project for the non-oil sector are derived from the projected improvement in quality and relevance of student learning as a result of better management and effective leadership, and implementation of quality programs in general education. All these should also lead to improved student achievement, an .d improved effectiveness and efficiency of the delivery of education services. It is also expected that the poor will have better chances to continue to tertiary education and have better labor market outcomes as a result of improved quality and relevancy in general education, contributing to the country's poverty reduction efforts through the development of human capital.</p> <p>-Contribution to Employment in non-oil sectors;</p> <p>This project would support the Government's efforts to strengthen the curriculum development capacity in the Institute for Education Problems (IEP), design and adopt the National Curriculum Framework and prepare and implement new national standards and syllabi for grades H1 to improve the quality and relevance of general education to meet the needs of the emerging market economy and the social and political environment.</p> <p>-Contribution to new technology;</p> <p>As far as the improvement of quality and relevance of education is concerned, the project suggested: (a) curriculum reform and teacher training to improve and realign the existing curricula based on the needs of the emerging economy and the political and social environment; (b) improving the quality of the teaching staff through an increase in the basic wages while reducing the total number of teachers; and (c) improving the physical conditions of schools through rehabilitation, refurbishment and provision of new technologies.</p> <p>-Environmental impact and related investment;</p> <p>Asbestos material (primarily roofing sheets) are found in almost all existing buildings and pose serious hazards to the building occupants and to the environment. The MOE, the Rayon Authorities, and the SCAC would ensure that such asbestos materials are removed and disposed of safely, and under the appropriate oversight of Azerbaijan's environmental authorities. MOE would likewise ensure that no new asbestos materials are used in the rehabilitation/construction of schools.</p> <p>-Economic Life of the Project.</p>												
<p>Project's Current Status *</p>	<p>IMPLEMENTING</p>												
<p>Current and Anticipated Issues, Problems and Proposed Measures*</p>													
<p>Major project analysis indicators**</p>	<table border="0"> <tr> <td></td> <td style="text-align: center;">Financial</td> <td style="text-align: center;">Economic</td> </tr> <tr> <td>-Net Present Value (NPV)</td> <td></td> <td></td> </tr> <tr> <td>-Internal Rate of Return (IRR)</td> <td></td> <td></td> </tr> <tr> <td>-Cost effectiveness analysis (particularly, for social sector projects)</td> <td></td> <td>Very small impact on the state budget. Project economic and financial cost is well-taken</td> </tr> </table>		Financial	Economic	-Net Present Value (NPV)			-Internal Rate of Return (IRR)			-Cost effectiveness analysis (particularly, for social sector projects)		Very small impact on the state budget. Project economic and financial cost is well-taken
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* Please expand the row as much as needed

**Submit the supporting documentation

Asbestos material (primarily roofing sheets) are found in almost all existing buildings and pose serious hazards to

PUBLIC INVESTMENT PROJECT EVALUATION FORM

2.5 Project justification and analysis summary

<p>Strategic Context of Project*</p>	<p>-Linkages/relations to SSSP, SPPRS and SPSEDR; The proposed project to rehabilitate the power transmission system would contribute to the PRSP in a number of ways, most notably by: - Improving the conditions for economic growth through more reliable electricity supply; Reducing the cost of electricity through improved technical and financial management of the transmission system; and Improving the basis for private participation in energy infrastructure development by upgrading the power transmission system to enable dispatch and transmission of electricity consistent with contractual arrangement</p> <p>-Contribution to Production in non-oil sectors; The primary objective of the project is to improve the efficiency of the power transmission operation in Azerbaijan through technical and institutional strengthening of the generation/transmission utility. The project will contribute to the non-oil sector development.</p> <p>-Contribution to Employment in non-oil sectors; Electricity supply is one of the essential conditions for non-oil sector development and opening the new jobs.</p> <p>-Contribution to new technology; SCADA/EMS1 system: installation of hardware and software to enable real time acquisition of operational information from generating stations and HV transmission system substations, analysis and monitoring of the network status at the National Dispatch Center, and control and dispatch of the generating plants and the HV transmission system. Telecommunications network upgrade: installation of communications equipment to meet the requirements of dispatch, metering, and Hv network operations and maintenance. It will also provide broadband communications facilities between major Azerenerji offices and generating plants to support improvements in Azerenerji financial management and administration.</p> <p>-Environmental impact and related investment; The project is conservatively expected to lead to a 1.5 percent reduction in gas and fuel oil use at power plants because of more economic dispatch, with a corresponding effect on emission of greenhouse gases. An estimated 0.5 percentage point's reduction in transmission losses (from 5 percent to 4.5 percent) has a corresponding positive impact on emissions from the power plants. The project has been given an environmental category rating of B since proposed investments under the project will be confined to existing facilities and rights of way and as such are unlikely to trigger major environmental impacts or other safeguard policies.</p> <p>-Economic Life of the Project. Starting from 2010 will continue for many years</p>									
<p>Project's Current Status *</p>	<p>IMPLEMENTATION HAS NOT STARTED YET</p>									
<p>Current and Anticipated Issues, Problems and Proposed Measures*</p>	<p>1) Inadequate tariffs for sector enterprises due to failure to establish suitable institutions and rules for independent regulation. 2) Loss of Government commitment to the principles of cost-recovery tariffs. 3) Failure to establish adequate social protection systems on a timely basis. 4) Distribution companies' payment to Azerenerji for power supply falls short of their contractual obligations.</p>									
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* Please expand the row as much as needed

**Submit the supporting documentation

Asbestos material (primarily roofing sheets) are found in almost all existing buildings and pose serious hazards



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PUBLIC INVESTMENT POLICY PROJECT

TRAINING WORKSHOP FOR TECHNICAL STAFF

Determining the Projects Content of PIP



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DETERMINING THE PROJECTS CONTENT OF PIP

INTRODUCTORY QUESTIONS TO LMS/AGENCIES

- How do you prepare your PIP submissions?
- Did you have difficulty in responding to the Joint/PIP CC for 2007-10?
- Do you have a SSDP?
- Do you have a projects pipeline supporting SSDP and multi-year PIP and State Budget?
- What are the “preparedness profile” of your projects?
- Do you have a separate “project development cycle” independent of the PIP process?



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DETERMINING THE PROJECTS CONTENT OF PIP

Processing a Project into the PIP

- Identification of the project
- Preparing the Project Concept Paper
- Preparing the Pre-Feasibility Report
- The full Feasibility Report preparation
- Project Appraisal Report
- Inclusion into the PIP
- Loan/Credit Agreements
- Finalizing the Implementation Plan

3



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DETERMINING THE PROJECTS CONTENT OF PIP

Project Identification

- This is what makes bottom-up planning meaningful.
- Participatory process is important. Does it work here?
- Who could and should identify projects?
- Who have identified our two case projects?
- How will it be decided if it is a good project idea, and what is the next?

4



DETERMINING THE PROJECTS CONTENT OF PIP

The Project Concept Paper (PCP)

- Draft a "Project Idea" proposal (maximum one page) for each of our two sample projects (Azerenergy and education).
- Who, and how, will decide whether this proposal is to be taken one step up into the PCP stage?
- Prepare and discuss the PCP for each of our two case projects, based on the template provided in the draft PIPP Manual (Annex 10).

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DETERMINING THE PROJECTS CONTENT OF PIP

Processing of PCP

- The PCP will be prepared by the LM/Agency's dept/division in charge of project development work;
- It will be reviewed & approved by the LM/Agency management on the basis of its SSDP, SPPRS, SPSEDR, and the most recent Joint/PIP CC, and will be sent to MOED for next stage.
- The MOED PIP Division will obtain views of all relevant divisions on the proposed project and give its recommendations to the MOED Investment Review Committee (IRC).
- A project whose PCP is approved by IRC qualifies for inclusion in the outer years of the PIP.

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DETERMINING THE PROJECTS CONTENT OF PIP

The Pre-Feasibility Report (PFR)

- Who will decide, and how, if the PCP is to be taken up to the Pre-Feasibility stage?
- Who should, and how, prepare and approve the PFR, LM/Agency or MOED?
- Draft and discuss a PFR for each of our two case projects. Use for this purpose the PFR template provided in Annex 11 of the draft PIPP Manual.

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DETERMINING THE PROJECTS CONTENT OF PIP

Processing of PFR

- No projects w/o a PFR will be included in the next FY's PIP. Discuss the reasons.
- Once a PCP is approved by IRC, MOED/EPFD will form a PFR Team under himself or one of his division chiefs and including members from MOF and the LM/agency.
- PFR will analyze and verify the project's potential contributions to national and sectoral development objectives and strategies with the help of sector and technical experts using both official and market data.
- If the MOED/IRC approves PFR, it can be included in the LM's submission for the next FY PIP.

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DETERMINING THE PROJECTS CONTENT OF PIP

The Full Project Feasibility Report (FPFR)

- If a project is below a certain size (depending on its sector), MOED/IRC may exempt it from the FPFR requirement and can move it to the Appraisal stage.
- Preparation of a FPFR requires substantial work and expertise beyond the capacity of a LM/Agency, hence contracting it out.
- Preparation of a FPFR may take several months, even years, depending on the size and nature of the project.
- This last point, particularly, makes a PAR indispensable.

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DETERMINING THE PROJECTS CONTENT OF PIP

The Project Appraisal Report (PAR)

- Every project to be included in the next FY's PIP should be duly supported with a PAR prepared by MOED.
- PAR will:
 - confirm the evaluations of PFR or FPFR;
 - Assess the project's suitability to medium- to long-term development objectives and strategies;
 - Identify the critical risks to the project and its management options;
 - Serve as a guide for project implementation and monitoring.

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DETERMINING THE PROJECTS CONTENT OF PIP

Selection of Projects for the PIP

- We have so far talked about the process and procedures for evaluating LMs' PIP submissions and for developing the project proposals into the PIP.
- We have referred only to the "national and sectoral development objectives and strategies" as the main criteria for the evaluation of sector PIPs and projects.
- This main set of criteria should now be specified in more definite and operational terms, which are called "prioritization and selection of investment programs and projects".

AZERBAIJAN REPUBLIC

MINISTRY OF ECONOMIC DEVELOPMENT

**Project Concept Paper
Power Transmission Project**

1. Cover Page / Introduction:

- a) Name and address of LM/agency;
Azerenerji (Open Type Joint Stock Company)
10, Academician Abdulkerim Alizade street
Baku AZ1005
Azerbaijan
- b) Type of agency (e.g., LM, State Committee, SOE) and sector;
Azerenerji (Open Type Joint Stock Company)
Energy sector
- c) Other organizations which may be involved in the project and/or its funding;
World Bank Group
- d) Contact person, his position, phone number, and e-mail address; and
Mr.Teyyar Ibrahimov
Tel: 994 12 98 41 84
Fax: 994 12 95 55 23
e-mail: teyyar@azerenerji.com
- e) Signature of the authorized official.

2. Technical Information:

- a) Concise title and objective of proposed project;
Power Transmission Project
The primary objective of the project is to improve the efficiency of the power transmission operation in Azerbaijan through technical and institutional strengthening of the generation/transmission utility. The project has as a secondary objective to contribute to strengthening Azerenergy's financial position. (page 3 of PAD)
- b) Discussion of the:
- Objectives;

The proposed project to rehabilitate the power transmission system would contribute to the poverty reduction in a number of ways, most notably by:

- **Improving the conditions for economic growth through more reliable electricity supply;**
- **Reducing the cost of electricity through improved technical and financial management of the transmission system; and**

- Improving the basis for private participation in energy infrastructure development by upgrading the power transmission system to enable dispatch and transmission of electricity consistent with contractual arrangements. *(page 3 of PAD)*

- Methods of approach;

Financing of high-priority investments in dispatch and transmission network rehabilitation represented the best approach at this stage in sector development. Transmission is a backbone of the power system, and the current lack of an adequate dispatch system is both a risk to security of supply and a cause of inefficient operations. *(Page 3 of PAD)*

- Amount of effort (labor) to be employed;

Azerenerji has established a Project Implementation Unit for the proposed project, reporting to the Chief Engineer (First Deputy President) and staffed by specialists in technical, financial, environmental, and procurement matters, to act as the Bank's counterpart on day-to-day matters. The PIU is responsible for project preparation, implementation, including procurement, contract supervision and management, and project financial management, including project accounting, financial reporting, loan disbursements, and arrangements for external audit. *(page 7 of PAD)*

- Anticipated results and beneficiaries;

- Improved efficiency of fuel use per kWh of electricity generated through Economic Dispatch and reduced transmission losses.
- Improved reliability and quality of electricity supply with respect to frequency and duration of forced outages.
- Strengthened financial position (i.e. need for Govt. financial support reduced/ eliminated) as a consequence of (a) tariffs that increase over time to cover full costs, and (b) increased payment collections. *(page 4 of PAD)*

- How the work will contribute to sustainable development in the sector;

Over the longer term, the sustainability of the project will depend on:

- increasing Azerenergy's tariffs to cost-recovery level;
- the financial performance of electricity distribution companies and their orderly payments to Azerenergy for supply of electricity; and
- capacity building for the Azerenergy dispatchers; continuous SCADA computer system support; maintenance personnel and resources for the transmission system. *(page 9 of PAD)*

c) Type of support needed (other than funding).

N/A

3. Supporting Information:

a) Proposed estimated cost;
Planned total cost 55.4 mln USD

b) Brief cost breakdown;

**Proposed IBRD Loan amount – 48 mln USD
Government share – 7.4 mln USD**

	Loan Amount	Government Share	Total Cost
Works	160,000	40,000	200,000
Goods	44,510,000	6,443,333	50,953,333
Consultant Service	2,470,000	823,333	3,293,333
Training	100,000	-	100,000
Incremental operating cost	280,000	93,333	373,333
Front end fee	240,000	-	240,000
Unallocated	240,000	-	240,000
Total	48,000,000	7,400,000	55,400,000

(Page 53 of PAD)

c) Any proposed cost sharing;
**IBRD Loan amount – 48 mln USD
Government share – 7.4 mln USD**

d) Proposed duration of project;
5 years 2006-2010
(Page 8 of PAD)

e) Brief description of the LM/agency's previous experience with the same and/or similar types of proposed project.

Azerenerji has been the beneficiary and implementing agency in two major hydro rehabilitation projects financed by EBRD, a substation rehabilitation project financed by KfW, and reconstruction of a combined-cycle thermal power plant financed by JBIC. The capacity of Azerenerji and the PIU to undertake their project implementation responsibilities is considered to be satisfactory, given their experience with previous projects and the technical skills of their staff. *(Page 8 of PAD)*

AZERBAIJAN REPUBLIC
MINISTRY OF ECONOMIC DEVELOPMENT
Project Concept Paper
Education Sector Development Project

1. Cover Page / Introduction:

- a) Name and address of LM/agency;
Ministry of Education
Address: 49 Khatai Avenue, Baku AZ 1008
Azerbaijan
- b) Type of agency (e.g., LM, State Committee, SOE) and sector;
Ministry of Education
Education sector
- c) Other organizations which may be involved in the project and/or its funding;
World Bank Group
Soros Foundation
- d) Contact person, his position, phone number, and e-mail address; and
Mr. Iskender Iskenderov, Deputy Minister
Tel: 994-1 2-93 7-083 Fax: 994-12-987-569
- e) Signature of the authorized official.

2. Technical Information:

- a) Concise title and objective of proposed project;
Education Sector Development Project
The Program seeks to increase learning achievements for all students to meet the needs of a market economy and improve the efficiency of general education. The development objective of Phase 1 is to strengthen the capacity to plan, manage and monitor the reform program more effectively and efficiently and initiate the highest priority investments in selected districts.
(page 3 of PAD)
- b) Discussion of the:
 - Objectives;
 - **Quality improvement (through curriculum reform, teacher development, provision of textbooks and reading materials);**
 - **efficiency and financing (through financing and budgeting reforms, rationalization and school improvement);**
 - **equity and access to general education (through school grants in selected less advantaged districts); and**

- **management strengthening (through student assessment, management information systems, management, planning and monitoring capacity). (page 3 of PAD)**

- **Methods of approach;**

Financing of high-priority investments in strengthening the capacity to plan, manage and monitor the education reform program more effectively represented the best approach in sector development. (Page 3 of PAD)

- **Amount of effort (labor) to be employed;**

The MOE has committed to the establishment of the Project Coordination Unit (PCU), which will be responsible for coordination and implementation of the Government's education reform, including the implementation of the ERP. The PCU will also have the basic capacity to provide support in procurement, financial management, and project monitoring and evaluation. The PCU will be under the direct responsibility of the Deputy Minister for Program Coordinator. The PCU will be comprised of the following staff: (i) a Director; (ii) a Deputy Director; (iii) a procurement officer; (iv) procurement assistant/construction engineer; (v) a financial management specialist; (v) a financial assistant; (vi) translators/interpreters (2); and (vii) a monitoring and evaluation specialist. (page 31 of PAD)

- **Anticipated results and beneficiaries;**

- **Improved quality and relevance of general education**
- **Improved efficiency in resource allocation and use in general education**
- **Improved access to quality general education**
- **Strengthened management, planning and monitoring capacity**

The entire Azeri population will benefit from the proposed Program because of improved quality and relevance of general education through curriculum reform, teacher development and provision of reading materials and strengthened planning, management and monitoring capacity in the sector. More specifically, the target beneficiary population of the Program includes all children in primary and general secondary education, students and teaching staff in the existing teacher training institutes, and all those working in the education sector. (page 30 of PAD)

- **How the work will contribute to sustainable development in the sector;**

The Program will assist the Government in realigning curriculum objectives of general education through curriculum reform. In addition, the Program will assist the Government to prevent further deterioration of the quality of general education through a set of specific interventions such as: (i) teacher development through improvement in the delivery of in-service and pre-service teacher education; (ii) provision of reading materials for school libraries; (iii) provision of selective teaching and learning materials and equipment and school improvement in selected districts; and (iv) creating a school-based innovative grants program for demand-driven local school projects to upgrade schooling quality in selected districts. (page 19 of PAD)

c) **Type of support needed (other than funding).**

N/A

3. Supporting Information:

a) Proposed estimated cost;
Planned total cost 20.99 mln USD

b) Brief cost breakdown;
Proposed IDA Loan amount – 18 mln USD
Government share – 2.8 mln USD
Soros grant – 0.18 mln USD

	Loan Amount	Government Share	Total Cost
Works	5,060,000	690,000	5,750,000
Goods	5,160,000	340,000	5,500,000
Consultant Service	3,560,000	520,000	4,080,000
Training	2,030,000	130,000	2,160,000
School Grant Program	600,000	150,000	750,000
Incremental operating cost	160,000	290,000	450,000
Unallocated	1,430,000	860,000	2,290,000
Total	18,000,000	2,980,000	20,980,000

(Page 88 and 117 of PAD)

c) Any proposed cost sharing;
IDA Loan amount – 18 mln USD
Government share – 2.8 mln USD
Soros grant – 0.18 mln USD

d) Proposed duration of project;
4 years 2003-2006
(Page 2 of PAD)

e) Brief description of the LM/agency's previous experience with the same and/or similar types of proposed project.

MOE needs to strengthen the capacity in implementation of the project. The capacity of the MOE and its associated units will be built slowly but consistently over time throughout the project implementation period. The management and planning capacity of the MOE and local levels will be strengthened through technical assistance and training programs supported under the proposed Program. In this way, the country's education system will have the necessary foundation to implement the contemplated reforms in the other parts of the system. *(Page 35-36 of PAD)*

Exercise on Assessment and Prioritization of Investment Projects

Project name:

Sector:

Project code:

This document describes criteria and scale for the assessment of pre-feasibility/full feasibility studies of investment projects. Using the questions provided in next pages, please evaluate the “Education Sector Development” and “Power Transmission System” projects on the basis of their feasibility studies as provided to you. Please justify the assessment results of your group by giving evidences,

Links to National and Sectoral Development Programs:

Good Acceptable Marginal Poor

Public/Private Justification: Good Acceptable Marginal Poor

Fiscal Impact and Recovery of Costs: Good Acceptable Marginal Poor

Cost-Benefit: Good Acceptable Marginal Poor

Alternatives: Good Acceptable Marginal Poor

Sensitivity and Risk Analysis: Good Acceptable Marginal Poor

Institutional Capacity: Good Acceptable Marginal Poor

Poverty Analysis: Good Acceptable Marginal Poor

Environmental Analysis: Good Acceptable Marginal Poor

Performance Indicators: Good Acceptable Marginal Poor

OVERALL RATING (if total points are 40-30= good, 30-20=acceptable, 20-10=marginal, 0-

10=poor): Good Acceptable Marginal Poor

Weighted Overall Rating =

Guidelines for Rating Project Analysis Feasibility Report

Note: If questions under each criterion are answered adequately, assign “good” rate for the project. If answers are inadequate, then assign “poor” rate to that project for that criterion. .

1. Project coherently set in macro-economic and social strategies of the country.

(Scale: **Very good 1 2 3 4 Poor**) (The weight assigned to this criterion is 15%)

1. Does the project address and contribute to furthering outcomes in strategic areas defined by the National Development Framework?
2. Is the project identified as a priority in the public investment program?
3. Is the policy environment appropriate for excellent project performance and consistent with project assumptions about macroeconomic stability?

2. The public/private justification is adequate.

(Scale: **Very good 1 2 3 4 Poor**) (The weight assigned to this criterion is 15%)

1. Rationale for public sector involvement. Does the Feasibility Report (FR) provide a solid basis for the project to be in the public sector?

3. Fiscal Impact and Cost Recovery

(Scale: **Very good 1 2 3 4 Poor**) (The weight assigned to this criterion is 15%)

1. Does the fiscal impact analysis consider the project’s magnitude and impact on the public sector investment program and future revenues and expenditures?
2. Is the recurrent cost funding analysis or cost recovery analysis adequate?
3. Does the FR include realistic and adequate measures to permit project financial sustainability (during and after implementation)?
4. Are tariff and recovery requirements clearly specified to achieve project objectives?

4. Completeness and Internal Coherence of Cost-Benefit Analysis or Other Selection Criteria

(Scale: **Very good 1 2 3 4 Poor**) (The weight assigned to this criterion is 15%)

1. Were CBA, least-cost or cost-effectiveness techniques used (to select alternatives or appraise the selected alternative)?
2. Are shadow prices clearly explained and integrated in the analysis? *
3. Does the FR use an organized and structured analytical framework for each main component?
4. If a benefit-cost analysis is done, were mutually independent components analyzed separately and those with a negative NPV dropped?

5. Evidence of Quantitative Analysis of Alternative Project Design

(Scale: **Very good 1 2 3 4 Poor**) (The weight assigned to this criterion is 15%)

1. Is there evidence that alternatives were considered during the design selection of the project?
2. Is there evidence that the project being appraised is the least-cost or the optimal in NPV?
3. Are the without and with project situations clearly identified and their respective financial and economic flows transparently specified?

6. Sensitivity/Risk Analysis

(Scale: **Very good 1 2 3 4 Poor**) (The weight assigned to this criterion is 15%)

1. Was there an attempt to identify the underlying or causal factors that introduce risk?

2. Were switching values calculated?
 3. Does the sensitivity analysis reflect the risks discussed in the project risks (including institutional risks) section of the FR?
 4. Does the analysis determine if variations in key underlying variables have an important impact on the FRR or ERR? *
 5. Are the risks associated with individual project components clearly presented?
-

7. Institutional Capacity and Risk Analysis

(Scale: Very good 1 2 3 4 Poor) (The weight assigned to this criterion is 15%)

1. Was institutional capacity to implement the proposed project adequately assessed?
 2. Was action taken to reduce identified ex-ante institutional capacity risks?
 3. Is a realistic set of actions included to reduce institutional risks during implementation?
 4. Is there evidence that the project design in the FR was modified to reduce or contain institutional risk?
-

8. Poverty and Gender Analysis

(Scale: Very good 1 2 3 4 Poor) (The weight assigned to this criterion is 15%)

1. Is the distribution (or incidence) of costs and benefits analyzed by income group and gender?
 2. Are the beneficiaries primarily low income?
 3. Are the beneficiaries' income level and related socioeconomic variables calculated, without and with the project?
 4. How was the project design shaped to increase the benefits accruing to low-income beneficiaries?
 5. Is the project included in the Program of Targeted Interventions?
-

9. Environmental Analysis and Linkage to Economic Analysis

(Scale: Very good 1 2 3 4 Poor) (The weight assigned to this criterion is 15%)

1. Did the project require an Environmental Assessment?
 2. How are environmental impacts of the project and sub-projects reflected: Are they incorporated into the economic analysis?
 3. Are the sub-projects subject to an environmental certification?
 4. For each of the alternatives, are the environmental costs and benefits quantified to the extent possible and economic values attached?
-

10. Economic Performance Criteria

(Scale: Very good 1 2 3 4 Poor) (The weight assigned to this criterion is 15%)

1. Are economic performance variables adequately included?
 2. Does the implementation plan include indicators and resources for monitoring and evaluation during implementation to measure economic results of the project?
 3. Does the supervision schedule complement this objective?
 4. Is there a provision for testing to determine learning achievement?
 5. Is there a provision for a mid-term review?
-

* These questions do not apply to the assessment of social sector projects.

Endnotes:

1. The procedure followed includes: (i) for each operation, evaluators assign a rating to each criterion; (ii) evaluators make a judgment on the overall rating for each project; (iii) the ratings for each criterion are fed into an expert choice model with different weights which gives an independent overall score to each project; and (iv) the two sets of overall ratings are matched for consistency for each project and sector.

AZERBAIJAN REPUBLIC

MINISTRY OF ECONOMIC DEVELOPMENT

Sample Project Pre-Feasibility Study on Education

- 1. Executive summary:** discuss all the main information on the project and the main findings of the pre-feasibility study.
-

The purposes of the proposed Education Reform Program are to increase learning achievements for all students to meet the needs of a market economy and improve efficiency of general education. The proposed APC will be implemented in three phases over a period of ten years. Phase 1 of the project is estimated at US\$18.0 million. The development objective of the First Phase of the Program (2003-2007) is to strengthen the capacity to plan, manage and monitor the reform program more effectively and efficiently and initiate the highest priority investments in selected districts.

The First Phase of the program is proposed to focus on a set of key issues in general education, namely:

- **Reduction in the quality and relevance of general education:** a) Outdated curriculum and teaching methods, b) Poor learning environment due largely to the lack of access to textbooks and reading materials; the shortage of basic teaching and learning materials and equipment; and (iii) the deterioration of the physical facilities c) Ineffective teacher education and training, and d) low teacher salaries.
- **Inefficient utilization of available resources.**
- **Growing concerns about equitable access to education.**
- **Weak management and planning capacity.**

Based on the financial, economic, institutional, social and risk analyses it is proposed the First Phase to support several efficient activities/components.

1. Enhancing the quality and relevance of general education through: (i) curriculum reform for grades I-1 1, (ii) development and enhancement of teacher capabilities through upgrading of teaching skills and knowledge in the new curricula and the use of new teaching methodologies, and (iii) provision of reading materials for school libraries.
2. Enhancing efficiency through financing and budgeting reforms and rationalization and school improvement
3. Upgrading schooling quality in less advantaged rayons through the school grant program
4. Strengthening the management capacity through (i) the design and implementation of a national student assessment system; (ii) the design and establishment of an effective education management information system (EMIS) at the MOE and selected districts; and (iii) the development of management and planning capacity in the MOE and pilot

(PAD, pp. 8-10 & 45-47)

2. Introduction: purpose of the study; its coverage and structure; how the study was conducted; summary findings; conclusions and recommendations.

This pre-feasibility study is undertaken to analyze and determine the components / activities of the proposed Education Sector Development (ESD) project. The purpose of this assessment is to determine current problems in the education sector of Azerbaijan and to increase learning achievements for all students to meet the needs of a market economy and improve efficiency of general education. This study attempts to answer to following questions:

- What are the main problems and government strategies in the education sector?
- What activities could enhance the quality of education and solve existing problems efficiently?
- Which regions and population groups the project activities should target?
- What type of institutional and implementation arrangements are required for successful delivery of the project?
- Do results of economic, financial, social, technical, environmental, institutional and risk analyses justify the feasibility of the project?
- Does the project command sufficient resources?

Different analysis techniques, wide variety of official data and findings of numerous researches were used to answer these questions. The techniques included but not limited to "cost-benefit", "cost-effectiveness", "least cost", sensitivity and risk analyses. Data of the MoE, State Statistics Committee and the WB were extensively used throughout the study.

The analyses revealed following major problems in the education sector: (i) the deterioration in the quality of education due to substantial contraction of public financing to this sector, (ii) increasing inequality in access to quality education, (iii) inefficient use of current resources, and (iv) poor management, planning and monitoring capacity both at the national and local levels.

The First Phase of the proposed project will address the improvement of the quality and relevance of general education by: (i) completing on-going curriculum reform for general education; (ii) providing institutional development for teacher training institutes and training of teacher trainers, teachers and school directors; (iii) providing reading materials for school libraries; and (iv) establishing a new student assessment system and assessing the results of student learning outcomes in selected core subjects. These interventions will be supplemented by specific interventions and reforms to strengthen the management and policy development capacity at the national and selected district levels to improve efficient and effective use of available resources for the education sector. This phase of the project is designed to extend to 4 years.

3. Description and Coverage: name; purpose; type; technical direction; size; implementation period; location and place; expected outcomes; main inputs; target stakeholder, population, and regions; responsible organization and its statute; implementing/operating agency.

The Education Sector Development project seeks to increase learning achievements for all students to meet the needs of a market economy and improve the efficiency of general education. The project pursues to improve the quality of education, enhance equitable access to education, improve efficient use of resources and strengthen management capacity in the education sector through efficient investments and technical assistance. The project will be implemented between 2003-2007. The school grants program which is designed to enhance learning environment in schools and improve equitable access to education will be limited to three pilot districts: Ali Bayramli, Ismayilli and Ujar.

The entire Azeri population will benefit from the proposed Program because of improved quality and relevance of general education through curriculum reform, teacher development and provision of reading materials and strengthened planning, management and monitoring capacity in the sector. Students and teaching staff in the existing teacher training institutions and all those working in the education sector will also benefit from the improved learning environment in both teacher training institutions and in the general education system. This currently represents about 1.6 million students in grades I -11. Indirect benefits of the Program will also accrue from improved efficiency and effectiveness in the delivery of educational services as a result of strengthened capacity for management, planning and monitoring. About 45,000 students and 5,000 teachers in the three pilot districts would also be the main beneficiary of the improved quality and relevance of general education through rationalization and school improvement efforts and school grant program.

Long term benefits of the Program will be derived from the projected improvement in quality and relevance of student learning as a result of better management and effective leadership, and implementation of quality programs in general education. It is also expected that the poor will have better chances to continue to tertiary education and have better labor market outcomes as a result of improved quality and relevancy in general education, contributing to the country's poverty reduction efforts through the development of human capital.

The MOE will be responsible for implementing the Project on behalf of the Government of Azerbaijan through the newly established Project Coordination Unit (PCU). MoF will directly participate in the preparation and application of the new budget system in the education sector. The Program Steering Council is designed ensure participation of all relevant ministries and agencies in the implementation process of the project. The District Coordination Units will ensure the coordination and participation of NGOs and other local organization in the project.

4. Project background:

- a) Social and economic situation (general, sectoral and/or regional)
 - b) Sectoral and/or regional development policies and programs
 - c) Institutional structure and legislative environment
 - d) Origin of the project idea and its appropriateness
 - Justification based on sectoral and regional development policy and purposes
 - Project linkages with other past, ongoing and planned projects
 - Process of originating the project idea
 - Other studies, research, and works related to the project
-

The proposed Education Reform Program will assist the country in its economic and social development through investments in education and technical assistance. Azerbaijan still maintains an extensive network of education institutions across the country, but the quality of physical infrastructure, teaching and learning environment has deteriorated sharply along with teachers' salaries and the availability of learning materials. At the upper secondary (grades 10-11) and higher education levels, there are sharp drops in student enrollments, particularly for the poor."

According to the MoE, following issues remain in the education sector in Azerbaijan. These include, (i) deterioration of the quality of education due to the sharp decline of public expenditures for education, (ii) increased inequality in access to the quality education (iii) inefficient use of current resources and (iv) poor management and monitoring capacity at the local and national levels.

The current Azerbaijan education system consists of: (i) general education programs, and (ii) vocational and professional programs. General education consists of pre-school education (ages 3-6) and general schools (grades 1-11). Vocational and professional education includes: (i) vocational schools; (ii) technicums (i.e., specialized secondary education); and (iii) higher education institutions. Enrollments in 2000 were: 120,000 in pre-school; 1,640,000 in general education (grades 1-11); 22,900 in vocational schools; 42,600 in technicums; and 119,700 in higher education institutions. In general education, in 2000, there were 470 primary schools (grades 1-4); 922 basic schools (grades 1-9); and 3,136 general schools (grades 1-11).

The public education system has three main sources of revenue: (i) the state budget; (ii) student fees in specialized secondary and higher education institutions; and (iii) parental and community contributions. In the period of 1992-1995, the education budget as a share of GDP and as a share of the total state budget fell sharply due to declines in GDP and Government revenue. In 2001, the education budget was 4.8 percent of GDP, compared to 2.7 percent of GDP in low-income countries and 3.8 for middle-income countries. In constant prices, however, public spending on education in 1998 was only about 34 percent of the 1992 level.

Real salaries of teachers have been declining since 1992, and in spite of several recent increases, teachers' salaries still have not reached the desired level. It should be mentioned that in spite of the decrease in real salaries and decline in birth rate during 1992-98, the number of employees in the education sector accounted for 50 percent of employees of all budgetary sectors and 10 percent of the total workforce in the country. The main factor influencing the increase in the number of teachers is small class size, which is one of the main problems of the school network.

Legal and Political Framework

The Constitution of independent Azerbaijan adopted in 1995 states the following about the right to education: "Each citizen has the right to education." In June 1999, the Azerbaijan Education

Reform Program was approved by Presidential decree. The State School Infrastructure Improvement Program (SSIIP) was approved by a Presidential decree on February 17, 2003. According to the Program, the Government plans to allocate about 269 billion manats during 2003-2007 for construction of 149 new schools, rehabilitation of 408 schools, and expansion of 175 schools (construction of 1,328 new classrooms). The State Program on Poverty Reduction and Economic Development (SPPRED) ensures that students of all grades gradually will be provided with free textbooks over the next three years.

Policy Development and Education Sector Reforms

In 1998, the Education Reform Commission was established by Presidential decree. By early 1999, the Commission prepared an education strategy document. After it was agreed by relevant Government structures and reviewed by international consultants, the Education Reform Program was approved by a decree of the President of the Republic of Azerbaijan in June 1999. The reform strategy determined urgent (1999), short-term (2000-2003) and medium-term (2004 and the following period) arrangements. The priorities of the Government's reform strategy are as follows: (i) improvement of general education quality, especially the introduction of innovations in curriculum and teaching/learning; (ii) mastering of modern learning methods by teachers, improvement of teacher training systems; (iii) improvement of efficiency in the use of resources; (iv) provision of equity and access to education; (v) expansion of decentralization measures and strengthening of accountability in planning and management systems; and (vi) rationalization of the school network. Development

(PAD, pp. 21-28)

- 5. Demand for the project:** demand analysis, marketing research and analysis, needs analysis, problem analysis, etc.
- a) National and regional level demand analysis
 - Basic determinants and indicators of the demand
 - Previous growth trends of demand
 - Information on current demand
 - Current capacity and history of capacity utilization
 - b) Estimate of future national and regional demand
 - a. Sectoral/regional economic growth scenarios (targets and strategies) and their relation to demand estimates
 - Growth potential of demand and its relation to demand estimate
 - Documentation of methods of estimation and studies
-

The Program will address four main sectoral issues: (i) the need to improve the quality and relevance of general education; (ii) the need to enhance efficiency in and effectiveness of the use of resources in the general education sector; (iii) the need to reverse the deterioration of the coverage of general education enrollment; and (iv) the need to raise the capacity of the MOE, local education authorities and school principals to plan, manage, and monitor the education sector more efficiently, effectively and equitably, including strengthening its accountability to the key stakeholders.

A) Quality and Relevance of General Education

The Program will assist the Government in realigning curriculum objectives of general education through curriculum reform. In addition, the Program will assist the Government to prevent further deterioration of the quality of general education through a set of specific interventions such as: (i) teacher development through improvement in the delivery of in-service and pre-service teacher education; (ii) provision of reading materials for school libraries; (iii) provision of selective teaching and learning materials and equipment and school improvement in selected districts; and (iv) creating a school-based innovative grants program for demand-driven local school projects to upgrade schooling quality in selected districts.

B) Efficiency in Resource Allocation and Use

There is an urgent need to address several efficiency issues that undermine improvements in quality and equity in access to education. These indicators suggest some scope for cost savings through internal efficiency improvements in the financing of the sector, e.g., low student-teacher ratios in general education (10: 1 compared with about the average of 15: 1 in OECD countries). There is a clear need to develop the capacity in the country to make better use of limited financial, physical and human resources, and strengthen the coordination between the Ministry of Education and the Ministry of Finance. The Program would address efficiency issues in general education through the following interventions:

C) Equity in Access to Quality General Education.

The Program will address equity in access to general education through both supply and demand side interventions. On the supply side, the Program will finance the following specific interventions: (i) curriculum reform in general education; (ii) teacher development; (iii) the provision of basic learning materials and equipment, including reading materials for school libraries for all general schools to improve the quality of general schools and reduce variation in access to quality schooling, especially in the three rural and impoverished districts; and (iv) school improvement through selected school rehabilitation and refurbishment in the three selected districts. In addition, the Program will improve data collection and policy analysis under the management and policy development effort so that equities in access to education and learning materials and learning outcomes can be better monitored and analyzed. On the demand

side, attention will focus on “poverty focused school grants” to address specific demand side factors, as determined by local communities and school districts, affecting poor students’ access to quality general education.

D) Management, Planning and Monitoring Capacity.

The Education Reform Project (LIL) under implementation clearly provided evidence of the lack of institutional and human capacity to manage the education system effectively at various levels. The Program does not attempt to undertake a comprehensive systemic reform, but rather to build capacity in the Ministry of Education, the Institute on Education Problems, and the local departments of education to gradually implement managerial and administrative changes through training in education planning and management. This capacity building will be complemented through: (i) a strengthened education management information system (EMIS) that will be supported by the Program; (ii) the establishment of a learning assessment system; and (iii) the establishment of policy analysis and planning capacity in the MOE.

6. Production/delivery of goods and/or services:

- a) Program of production of goods and/or services
 - b) Program of marketing/delivery of goods and/or services
-

The Program comprises a broad spectrum of activities/services which promote the objectives of improved educational quality, equity in access to education, and the efficient use of available resources in the education sector. The Program consists of the following components, each of which includes several subcomponents and/or activities: (i) quality and relevance of general education; (ii) efficiency and finance reforms; (iii) equity and access; and (iv) management, planning and monitoring capacity development.

Component 1 - Quality and Relevance of General Education

The objective of this component is to enhance the quality and relevance of general education through the following specific interventions: (i) curriculum reform for grades I-I 1; (ii) development and enhancement of teacher capabilities through upgrading of teaching skills and knowledge in the new curricula and the use of new teaching methodologies (e.g., interactive teaching methods); and (iii) provision of reading materials for school libraries. The Program will also improve educational quality in the pilot districts (in conjunction with Component 2) through school rehabilitation and refurbishment.

Subcomponent 1: Curriculum Development. This subcomponent would support the Government's efforts to strengthen the curriculum development capacity in the Institute for Education Problems (IEP), design and adopt the National Curriculum Framework and prepare and implement new national standards and syllabi for grades I-I 1 to improve the quality and relevance of general education to meet the needs of the emerging market economy and the social and political environment. This subcomponent would finance the provision of technical assistance, training, and goods (e.g., resource materials and equipment for the Department of Curriculum Development and curriculum printing).

Subcomponent 2: Teacher Development. The Project seeks to establish strong links between education reforms and teacher professional development through both initial teacher preparation and in-service training. This also requires the reform of pre-service and in-service teacher education programs based on the curricular reform in general education. The curricular reform envisioned under the Education Reform Program requires significant changes in teachers' knowledge and skills. The quality of teaching will depend on: (i) how well teachers are prepared to implement the new curricula and use the new teaching materials and (ii) exposure of teachers to alternative teaching and learning approaches, especially those focusing on student-centered and active learning methodologies.

This subcomponent would assist the MOE in two main areas: (a) continued development of in-service teacher training, including the mass-training of about 9,000 teachers (or 25 percent of the present primary education teachers); and (b) initial reforms for pre-service teacher education. The Program seeks to improve the standards of all training and the qualifications of all teacher education staff, including revitalizing the concept of the "professional practitioner" in teacher education among teachers in the schools, and its acceptance by the community. Phase 1 of the Program will finance the provision of technical assistance, training, and goods to strengthen the existing teacher training institutes (i.e., Azerbaijan Teachers Institutes and its 10 affiliates, Baku City Teacher Training Institute, Genje Teacher Training Institute, and Nakchevan Teacher Training Institute). This subcomponent would also finance the rehabilitation and refurbishment of the four selected teacher training institutes.

Subcomponent 3: Textbooks and Reading Materials. The main objectives of the textbook and reading materials subcomponent are to (i) stimulate reading habits of grades I-I 1 students and

provide extra-curricular and co-curricular reading materials (including reference materials) to facilitate independent learning opportunities through the provision of school library reading materials; and (ii) assist the Government in the development of textbook policy and concept. The first phase of the Program would finance (i) the provision of reading materials in Azeri Latin script, which are currently available in the market; (ii) extra-curricular and co-curricular reading materials which need to be converted from Cyrillic to Latin script; and (iii) the development and provision of new reading and reference materials for school libraries. All general schools in the country will be provided a set of reading materials under the Project.

The second objective of the subcomponent is to assist the Government in the development of textbook policy and concept. The Project will assist the Government in the development of an efficient and effective system of publishing, printing, and distribution of reading materials through the provision of technical assistance and training. Resources will be allocated to: (i) improve the content and standards of textbooks through the provision of technical assistance and training; and (ii) strengthen the capacity of the Textbook Department and the Textbook Approval Board to carry out their mandates

Component 2 - Efficiency and Finance Reforms.

Phase 1 of the APC will support the design and implementation of reforms in the financing of education, rationalization and school improvement in the three pilot districts.

Subcomponent 1: Financing and Budgeting Reforms. This subcomponent will assist the MOE to institute reforms in financing and budgeting (e.g., new funding formula and resource allocation mechanism; the implementation of a system of school accountability) so as to gain efficiencies in the use of financial, human, and physical resources in the education sector. One part of the reform effort will focus on the design and implementation of a new budgeting and financial management system, which will focus on attention and resources on achieving key education outcomes, to replace the current norm-based budgeting system. Under the new system, responsibility for the allocation of funds to specific items of expenditures will be delegated to district administrations and eventually to local schools. Development work and field testing will be accomplished in the three pilot districts. The main activities to be financed under the Project include technical assistance, training and study visits for key policy makers (including MOF and MOE staff and district education officials), hardware and software, and office equipment and materials for the three selected districts.

Subcomponent 2: Rationalization and School Improvement. This subcomponent addresses the following key sectoral issues: (i) an inefficient schools network, especially in rural districts; (ii) outdated human resources policies and practices including inappropriate distribution and utilization of teachers; (iii) considerable deterioration and inadequacy of existing school buildings, school furniture, equipment and teaching aids in the schools; and (iv) ineffective design and educational standards for constructing and rehabilitating school facilities. This subcomponent will assist the MOE to experiment an approach in three Rayons (districts) (namely, Ali Bayramli, Ismayilli, and Ujar) to: (a) develop plans and rationalize the schools network in order to gain efficiencies in school management and operations; (b) develop appropriate and cost-effective standards for school buildings; and (c) rehabilitate and provide furniture, basic equipment and teaching aids to selected schools. It is expected that this experience will set the model for future school infrastructure programs. Each Rayon (district) will develop an overall network rationalization plan and, in consultation with the MOE, adopt and implement this plan during an agreed period. Rationalization and improvement will proceed on three levels: policy/administrative, human resources, and physical infrastructure, as guided by needs assessments and social assessments that will be conducted in each district.

Component 3 - Upgrading Schooling Quality in Less Advantaged Rayons: School Grant Program. The proposed School Grant Program (SGP) aims to supplement the limited resources of specific schools in the three pilot districts to ensure that the poor are not discriminated from benefiting from quality education. The proposals will be evaluated on the following criteria,

namely: (i) poverty criteria and (ii) the proposed school-based program to improve the quality of learning in the school. Each proposal must be completely implemented in one year.

The school grant funds can be used to provide (i) additional training other than that provided by the regular teacher in-service training, including participation in seminars, workshops, conferences; (ii) additional learning and teaching materials for the classrooms and library that are not standard provisions; (iii) limited rehabilitation of the physical infrastructure of the school to ensure a conducive learning environment, including furniture and fixtures for special innovative classes or courses; (iv) school supplies to students and classrooms for the innovative classes or course; and (v) transport resources to ensure access to schools among the poor.

Component 4 - Management, Planning and Monitoring Capacity.

This component would focus on strengthening the management and planning capacity in the MOE to use available resources more effectively and efficiently. The proposed Program would finance: (i) the design and implementation of a national student assessment system; (ii) the design and establishment of an effective education management information system (EMIS) at the MOE and selected districts; and (iii) the development of management and planning capacity in the MOE and pilot districts. This will be done through several interventions through the following subcomponents:

Subcomponent 1: Establishment of a new System of Student Assessment The Program will support the establishment of a new system of student assessment (million). in general education, which will assist the MOE in developing a reliable, diagnostic and informative assessment system of student progress during their years of schooling. Under Phase 1, the National Center for Student Assessment (NCSA) will be established in the MOE to carry out both a school-based assessment and the development and implementation of a national sample-based student assessment.

Subcomponent 2: Establishment of Education Management Information System (EMIS). The program assist the MOE to design, test, and install and operate an EMIS in the MOE, the pilot districts and institutions integral to the implementation of education reforms (e.g., IEP).

Subcomponent 3: Management and Planning. Under this subcomponent, the following activities will be supported: (i) management review and performance audits of the MOE and the IEP, with an emphasis on distribution of responsibilities; (ii) competency-based management training for a selected group of education managers at the MOE, district and school levels; and (iii) the establishment of a Policy Analysis and Planning Unit in the MOE. In addition, limited support will be provided for the development of the Center for Applied Research (CAR) in the Institute for Education Problems (to be established under the restructured IEP to accommodate applied education research).

Component 5 - Project Coordination and Monitoring

This component would support the strengthening of coordination and monitoring mechanisms under the project. The component would finance: (a) consulting services (mentors/specialists in project management, procurement, financial management, audit services, monitoring and evaluation); (b) training of PCU and component key staff in general operational aspects (scheduling, resource programming, Bank procurement/disbursement practices (c) provision of office equipment and furniture, software supervision/site visits and (d) incremental operating costs. and requirements, reporting procedures, etc.);

7. Project setting/location:

- a) Geographic/physical characteristics (geography, climate, soil and topography, water, plants, other natural resources)
 - b) Economic and physical infrastructure (access to raw materials and markets, transportation, communication, water-energy access, other ancillary support)
 - c) Social infrastructure (population, settlements, income distribution, social services, cultural services, etc.)
 - d) Institutional infrastructure
 - e) Ecological/environmental pre-evaluation
 - f) Alternatives to location and to financing of the setting
-

Considering the proposed reforms in the areas of education improvement and efficiency and finance, it was agreed that the following criteria would also be used to select pilot districts in the program: number of schools; number of school students; average school size; students/teachers ratio; percentage of students attending 2nd and 3rd shifts; and higher education admission rates (as a proxy for general education quality). In addition, experience of social reforms in different sectors in Azerbaijan indicates that one of the most important predictors of successful project implementation is the readiness and willingness of local sector authorities in the districts to undergo changes, and the level of support for reforms by local executive power. Therefore, commitment to reforms or "reform-mindedness" of local education administration and local executives were also considered in the selection process.

Ismayilli (Rural mountainous district). Student per teacher ratio in this district is one of the lowest in the country. This provides space for efficiency improvement and rationalization measures to be taken in the pilot phase. Low level of contractual construction (AZM 11,970 per capita vs. AZM 219,588 per capita country average) and fee for services (AZM 27,829 per capita vs. AZM 217,268 per capita in Azerbaijan overall) indirectly indicate higher than average district poverty, when compared to the country level of poverty. "Reform-mindedness" of both district education administration and executive power was assessed as excellent by task force that knows both leaders.

Ujar (Rural district in the plains area). Student per teacher ratio in this district is close to the country average. This provides some opportunities to exercise efficiency improvement and rationalization measures. Low level of contractual construction (AZM 10,415 per capita vs. AZM 219,588 per capita country average) and fee for services (AZM 23,050 per capita vs. AZM 217,268 per capita in Azerbaijan overall) indirectly indicate higher than average district poverty, when compared to the country level of poverty. "Reform-mindedness" of both district education administration and executive power was assessed as excellent by task force that knows both leaders.

Ali-Bayramli (City). Low number of schools (15 only), high average number of students per school (919 vs. country average at 366) and close to national average student per teacher ratio set certain challenges for rationalization and efficiency improvement efforts under forthcoming Project. Poverty level in this city as derived from level of fee for services and contractual construction appears to be close to country average level. "Reform-mindedness" of both district education administration and executive power was assessed as excellent by task force that knows both leaders.

8. Technical analysis and plans:

- a) Project technology choice and capacity analysis
 - b) Alternative technology/methodology analysis and choice
 - c) Environmental impact of the chosen technology and costs of environmental protection
 - d) Technical design (preparing the land, construction, main and ancillary equipment/machinery, maintenance considerations, time frame)
 - e) Investment costs (land, construction, equipment/machinery)
-

The Efficiency and Finance Reforms Component. In terms of financing and budgeting reforms, there have been considerable discussions between the MOE and the MOF, with assistance of an international education economist financed under the PHRD Grant. It was agreed that the project would support the design, implementation and evaluation of a new budgeting mechanism (with particular focus on a capitation-based formula) in the three districts, before extending the system geographically.

With respect to rationalization and school improvement, the Bank has limited experience with school rehabilitation in Azerbaijan under the Education LIL and the Pilot Reconstruction Project. The reforms associated with this component are generally within the capacity of the MOE and local education authorities. The Bank would support the preparation of standards for school buildings and furniture, which will promote not only some flexibility and efficiency in the design, construction, and rehabilitation of school buildings, but also standards for education, safety, and health since most schools appear to lack such standards. The reforms associated with rationalization will be carried out based on the preparation of district rationalization plans during the first year of the project, assisted by both national and international consultants.

With respect to rationalization, available data indicate that Azerbaijan has one of the lowest student-teacher ratios in the world (10.1 to 1) in general education, covering primary and secondary general education. The existence of large numbers of very small schools reflects not only the dispersion of the rural population in villages but also the geography of rural Azerbaijan and the present level of development of roads and public transportation. Consolidating small rural schools in order to increase average class size and improve the utilization of teaching staff and teaching facilities is a practical option for only a small number of schools. The high cost of student transportation renders consolidation uneconomic for most rural schools. There are also a number of very large schools which are maintained in full operation, notwithstanding very low actual enrolments. Moreover, the relative costs of teachers and buses imply that more intensive employment of teachers will be less costly than busing students in many instances. Based on this review, the most promising option for improving the cost-effectiveness of expenditures on education in rural areas would be to implement a serious program of multigrade teaching in which students of different grade levels would be taught the same subject content simultaneously.

The Management, Planning, and Monitoring Capacity Component. At present, the MOE has no technical capacity to carry out national student assessments even though a small assessment unit was established in the Institute for Education Problems. Under Phase 1, the strategy is to build some institutional capacity through the establishment of the National Center for Student Assessment, directly reporting to the Minister of Education. It is expected that the State Student Admission Commission can provide some technical support to the MOE to build assessment capacity in the Center to carry out national-sample based assessments in grades 4 and 9 during Phase 1. At present, the MOE has no EMIS capacity at the national, local or school levels. The design of the EMIS subcomponent is appropriate to the needs of the MOE. While the Borrower considered a nationwide EMIS under the First Phase of the APL, it was agreed that the strategy would be to support the establishment of some institutional and technical capacity in the MOE and the pilot districts (i.e., Departments of Education), and then add new applications and extend the system gradually to other districts to establish an integrated EMIS in the Second and Third Phases. The investment costs are reasonable, and likely to decrease after the establishment of the EMIS capacity in the MOE.

9. Project inputs: primary and intermediate inputs, input costs

The major input to the project is 18 million USD loan to the Government of Azerbaijan from WB. The rest of the resources for the project are provided by the government and the Soros Foundation.

Financing Plan (US\$m):	Source	Local	Foreign	Total
BORROWER		2.35	0.45	2.80
IDA		11.66	6.34	18.00
US: SOROS FOUNDATION		0.09	0.10	0.18
Total:		14.09	6.89	20.99

10. Organizational structure, management and human resources: organizational structure; production/delivery management; general expenditures; personnel requirements and estimated costs

Program coordination. Under the Program, a Project Steering Council (PSC) will be established to coordinate the implementation of the Program. The Council will be composed of representatives from the Ministry of Education, other Ministries (e.g., Ministry of Finance and the Ministry of Economic Development), agencies (e.g., a representative of the State Student Admission Commission), higher education institutions and non-governmental organizations. The Steering Council will be headed by one of the Deputy Ministers of Education. The Project Coordination Unit (PCU) will act as a secretariat to the Steering Council.

Project Coordination Unit (PCU). The MOE has committed to the establishment of the Project Coordination Unit (PCU), which will be responsible for coordination and implementation of the Government's education reform, including the implementation of the ERP. The PCU will also have the basic capacity to provide support in procurement, financial management, and project monitoring and evaluation. The PCU will be under the direct responsibility of the Deputy Minister for Program Coordinator. The PCU will be comprised of the following staff: (i) a Director; (ii) a Deputy Director; (iii) a procurement officer; (iv) procurement assistant/construction engineer; (v) a financial management specialist; (v) a financial assistant; (vi) translators/interpreters (2); and (vii) a monitoring and evaluation specialist. The PCU will be provided adequate office space in the MOE Building.

Pilot district coordination. Three districts: Ali Bayramli, Ismayilli and Ujar, have been selected to be the focus of various pilot activities under the ERP. The pilot activities planned for the districts include the following: (i) improvement of libraries and provision of library materials; (ii) installation of computer laboratories into selected schools and implementation of a pilot ICT program; (iii) development and initial implementation of financing and budgeting reforms (Component 2); (iv) development and initial implementation of district rationalization plans; (v) rehabilitation and refurbishment of selected schools; and provision of basic furniture, equipment and teaching aids to the rehabilitated schools; (vi) implementation of the School Grant Program (Component 3); and (vii) development and implementation of training programs in management and administration. As part of the coordination and implementation of the ERP, a small district coordination unit will be established in each pilot district in the Department of Education. A district rationalization coordinator will be hired under the Project in each pilot district, who will be working closely with the Department of Education, the PCU and the National Coordinator.

The management expenditures of the project add up to 4.2 million USD.

Technical assistance and human resources	Cost (million USD)
International Consultants	2,58
National Consultants	1.5
Staff	0.12
Total	4.2

11. Project's management and implementation program:

- a) Project implementing organizations and technical capacities
 - b) Project organization's management approach
 - c) Project implementation program
-

The institutional assessment process provided several key results for the MOE, that have implications for the overall implementation of the Program, as follows:

- The Soviet-era education system in Azerbaijan was highly centralized and prohibited the establishment of schooling that was more attuned to the needs of the Azerbaijan society; much of the centralized management and administration remains;
- While examples of various reform initiatives are evident, the overall structure of education management has not been subjected to reform and the several school-based reform initiatives are not systematic or broadly encompassing of reformed management functions. The current organizational structure of the MOE lacks some core units (e.g., Statistics, Information Technology, Planning and Policy Analysis, Human Resource Planning, Student Assessment) and resources to carry out its core functions more effectively and efficiently; and
- Most MOE staff have not been trained in education management, leadership, and planning techniques, and lack incentives due to low salaries and limited professional development opportunities.

Executing agencies:

The MOE is designated as the official representative of the Borrower. The MOE is responsible for the Executive Agency on behalf of the GOAZ. The MOE will implement project activities through its line units/departments.

Project management:

The Ministry of Education, led by the Minister of Education, will be responsible for all strategic and policy related decisions. A Project Coordination Unit (PCU) will provide support in areas of procurement, financial management, and project monitoring and evaluation. The management responsibilities for each component and subcomponent will be assigned to MOE managers of the relevant department or unit within the Ministry of Education.

The implementation is not ready at this stage. It will be developed upon the conclusion of the loan agreement between GOAZ and WB.

12. Operational revenues and expenditures:

- a) Pricing of products and/or services
 - b) Capacity utilization estimates
 - c) Estimate of revenues and expenditures
-

Operational costs of the project are forecasted at 0.45 million USD. The project mainly aims to develop the management, planning and monitoring capacity of the government at all levels of the education sector. The project will support establishments of three new departments (Strategic Planning and Evaluation, Student Assessment and Evaluation and MIS) within the MOE. It is estimated that these new departments will increase the operational budget of the education sector by 200,000 USD annually given that they work at their full capacity.

Operational Expenditures of the Project	Million USD
Staff	0.12
Additional operational costs	0.32
Total	0.45

13. Total investment and its annual profile:

- a) Total investment
 - Land
 - a. Fixed costs (project studies, licenses/patents, land amelioration, construction preparation, construction, environmental protection, road access, equipment and machinery, transport, insurance, customs, assembly, vehicles, start-up, unexpected cost allowances)
 - Interest costs
 - Operational costs
- b) Annual profile

Total investment of the project is estimated to add up to 18.36 million USD. Current expenditures will amount to 450 thousand USD.

Project Cost by Expenditure Category	(US\$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total		
I. Investment Costs					
A. Works	5.76	-	5.76	-	31
B. Vehicles	-	0.11	0.11	100	1
C. Goods					
1. Library Books and Other Publications /a	1.78	1.66	3.44	48	18
2. Furniture & Fixture	0.98	0.00	0.98	-	5
3. Computers and Educational Equipment	-	0.97	0.97	100	5
Subtotal Goods	2.76	2.63	5.39	49	29
D. Technical Assistance					
1. Consulting Services					
a. Foreign Specialists	0.03	2.56	2.58	99	14
b. Local Specialists	1.50	-	1.50	-	8
Subtotal Consulting Services	1.52	2.56	4.08	63	22
2. Training & Fellowships					
a. Foreign Training	-	0.80	0.80	100	4
b. Local Training	1.00	-	1.00	-	5
Subtotal Training & Fellowships	1.00	0.80	1.80	45	10
3. Studies	0.16	0.20	0.36	55	2
Subtotal Technical Assistance	2.68	3.56	6.24	57	33
E. School Grant Facility	0.75	-	0.75	-	4
F. OECD-PISA Membership	-	0.12	0.12	100	1
Total Investment Costs	11.95	6.42	18.36	35	98
II. Recurrent Costs					
A. Incremental Staff Fees	0.12	-	0.12	-	1
B. Incremental Operating Expenditures	0.25	0.08	0.32	24	2
C. Repair & Maintenance	0.00	0.00	0.01	50	-
Total Recurrent Costs	0.37	0.08	0.45	18	2
Total BASELINE COSTS	12.32	6.50	18.82	35	100
Physical Contingencies	1.06	0.15	1.21	12	6
Price Contingencies	0.71	0.25	0.96	26	5
Total PROJECT COSTS	14.09	6.89	20.99	33	112

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14. Financing of the project:

- a) Managing and operating organization's financial structure
- b) Financing structure of the project
- c) Sources and conditions of financing
- d) Costs of financing
- e) Financing plan

Project's financial management will be carried out by finance experts of the PCU. The budget of the project will be comprised of 18 million USD WB loan, 2.8 million USD contribution of GOAZ and 180 thousand USD contribution of the OSI-Azerbaijan. The WB loan will be provided at 0.75% for 35 years with 10 years of grace period.

Expenditures of the project by components

Project Cost By Component	Local US \$million	Foreign US \$million	Total US \$million
A. Quality & Relevance of General Education	0.48	0.64	1.12
1. Curriculum Development			
2. Teacher Development	1.37	0.97	2.34
3. Textbooks & Reading Materials	1.51	1.57	3.08
B. Efficiency & Finance Reforms	0.08	0.35	0.43
1. Financing & Budgeting Reforms			
2. Rationalization & School Improvement	6.48	0.55	7.03
C. Upgrading Schooling Quality in Less Advantaged Rayons: School Grant Program	0.80	0.06	0.86
D. Management, Planning & Monitoring Capacity Development	0.49	0.55	1.04
1. Establishment of a System of Student Assessment & Evaluation			
2. Establishment of Education Management Information System	0.12	0.54	0.66
3. Management & Policy Development	0.03	0.47	0.50
E. Project Coordination and Monitoring	0.96	0.80	1.76
Total Baseline Cost	12.32	6.50	18.82
Physical Contingencies	1.06	0.15	1.21
Price Contingencies	0.71	0.25	0.96
Total Project Costs¹	14.09	6.90	20.99
Total Financing Required	14.09	6.90	20.99

Financial Plan of the Project

**Years Ending
FY 2004-FY 2007
(In US\$ Millions)**

	IMPLEMENTATION PERIOD						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Financing Required							
Project Costs							
Investment Costs	3.1	5.7	8.4	3.2	0.0	0.0	0.0
Recurrent Costs	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Total Project Costs	3.2	5.8	8.5	3.3	0.0	0.0	0.0
Total Financing	3.2	5.8	8.5	3.3	0.0	0.0	0.0
Financing							
IBRD/IDA	1.4	4.4	6.4	5.9	0.0	0.0	0.0
Government	0.4	0.8	1.2	0.4	0.0	0.0	0.0
Central	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-financiersOSI-AZ	0.0	0.1	0.1	0.0	0.0	0.0	0.0
User Fees/Beneficiaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Project Financing	1.8	5.3	7.7	6.3	0.0	0.0	0.0

15. Project analysis:

- a) Financial analysis
 - Financial framework and liquidity analysis
 - Discounted cash flow analysis
 - Financial cost-benefit analysis
 - Impact on state budget
-

The activities being financed under this Program are intended to bring the commitment of resources to education in Azerbaijan in line with international best practice, and to improve the quality and relevance of learning. The transition to a more efficient expenditure path will require investments in the design of activities, the training of staff and the production of materials. The purpose of the Credit is to finance these expenditures. The criteria being used to design interventions and to select investments ensure that the expenditures reduce the present value of future costs. The projected growth of the Azeri economy and of public revenues is expected to result in substantial increases in the absolute level of spending for education. The increase in national output is expected to be accompanied by corresponding increases in wages and salaries. Because teachers' salaries have been severely compressed during the post-Soviet period, they are expected to rise more rapidly than the general wage level. However, prudent financial management dictates that the allocation of real resources to education should not be expected to increase as rapidly as national output.

Fiscal Impact: Although Azerbaijan's public spending on education is lower than the OECD average (in terms of the share of GDP), this Program is designed to increase the effectiveness of public expenditures on education and not to increase real resource use by the sector. It facilitates the introduction of a more effective and efficient methods of instruction, raise educational standards, particularly for skills, and improve the allocation of inputs within schools.

The projected double-digit growth of the economy over the next twenty years is expected to result in corresponding increases in expenditures for education. However, as noted earlier, most of the increase in the education budget will have to be allocated to salaries and wages in order to restore the incomes of staff to competitive levels. The increase in funding will also permit modest improvements in the provision of teaching materials and more responsible maintenance of buildings, equipment and furniture.

The Program does not expect to generate additional expenditures because the investment will be targeted at the general education level only. Fiscal sustainability arises as an issue for only two components: (i) Quality and Relevance of General Education; and (ii) Management, Planning, and Monitoring Capacity. The First Phase of the ERP will finance the development, print and distribution of reading materials (including reference materials) to support the development and provision of reading materials for all school libraries. The main purposes of this subcomponent are to stimulate reading habits, encourage independent thinking and research skills, and provide support for extra-curricular and co-curricular subjects through the provision of reading materials. The Government will continue its current textbook policy of free of charge books to students in grades 1-4, and plans to extend this policy to students through grade 11, during the period of 2003-2005. The estimated costs of the provision of textbooks for all students will be about US\$20 million, which will be financed by the Government.

The First Phase of the ERP will support the Government's efforts for the development of management, planning and monitoring capacity at the central and local levels. In this regard, the ERP would support the establishment of several new units (i.e., Policy Analysis Unit and Planning (PAPU), the National Center for Student Assessment (NCSA), and Education Management Information Systems Unit (EMISU) or the employment of a group of technical staff for the newly established units. The incremental recurrent costs of fully functioning PAPU, NCSA, EMISU are estimated to average about US\$200,000 per year (or less than 0.1 percent of the recurrent expenditures of the MOE in 2002). This figure includes staff, maintenance, and

administration for all national assessment in grades 4 and 9. The PAPU, NCSA and EMISU are expected to be fully functioning after the completion of the First Phase of the ERP. The Department of Curriculum Development will also be established in the Institute for Education Problems, which will be re-organized on the basis of a management review to be financed under the ERP. The financing of this new unit will not increase recurrent expenditures since new staff positions will not be required.

The efficiency and financing component has two main subcomponents. The first is to increase efficiency and accountability in resource allocation and use at local levels. The objectives of the second subcomponent are to (i) rationalize both physical facilities and teaching staff where it is feasible; and (ii) improve conditions of a selected number of schools in the three pilot districts through rehabilitation and refurbishment based on a district rationalization plan. The net fiscal effects of rationalization and are not yet clear, but it is expected that some cost savings will be achieved in the long run. In particular, school improvement and refurbishment will reduce the accumulated deferred deficit as well as maintenance costs of the rehabilitated schools. The fiscal implications of the proposed investment and the recurrent expenditures will be closely scrutinized to ensure sustainability of the proposed investment.

b) Economic analysis

- Economic costs
- Economic benefits
- Economic cost-benefit analysis
- Cost effectiveness analysis
- Other economic impacts (value added, etc)

The rationale for public sector intervention in the education sector arises from three forms of market failure. First, education is a merit good. All young people must acquire basic skills in education in order to become productive workers and citizens as adults. Young children and their parents cannot be expected, in all cases, to choose the optimal amount and quality of education that is best for the children. Therefore, the state has a responsibility for mandating that all citizens obtain a minimum level of education. Second, the credit market for education is incomplete. Investments in education cannot be collateralized because the person (the debtor) and the education cannot be separated from one another. Therefore, lenders cannot ensure the recovery of loans. State intervention in the financing of education is the most efficient mechanism for making certain that sufficient amounts are invested. Third, the benefits from education accrue to the community as well as the individual student. If the allocation of resources to education were determined by rational individual choice, these external benefits would not play a significant role in defining the optimal level and allocation of investments in the sector. Under-spending on education would occur without the intervention of governments.

The purpose of the Program is to support the implementation of a national education reform program by further elaborating and testing alternative reform initiatives. The components included in the First Phase of the Program were selected on the basis of their perceived importance to the larger objective of ensuring that Azeri children are provided with an education that equips them to contribute effectively to the growth of the economy, to participate fully in the development of the political system and to live as full and responsible human beings. The design of the Program has been organized around four major objectives: (a) improving the quality and relevance of general education; (b) increasing the efficiency of the education process; (c) increasing equity in access to general education; and (d) strengthening the capacity of public sector institutions to formulate education policy and to manage the provision of education services. The Program will finance five components of the Education Reform Program:

The first component of this Program seeks to increase the quality and relevance of general education in Azerbaijan. It confronts the need to (a) reform the contents, sequencing and pacing

of curricular contents; (b) modify instructional methods in order to more effectively develop cognitive skills; and (c) supply reading materials for school libraries that stimulate reading habits and encourage independent study opportunities. This component responds to the need for government to anticipate the skills required for citizens to function adequately in the economic, political and social life of the country. The budget for reform of the curriculum is approximately US\$1.21 million. If the products of the reforms were to remain in place for only a decade, they would cost less than US\$0.07 per student year of education. The incremental benefits of reforms that ensure the development of higher order cognitive skills and the mastery of a more relevant body of knowledge are clearly many times more valuable.

The first component of the Program also supports in-service teacher training and initial reforms in pre-service teacher education. These training activities aim at ensuring that teachers have fastered a body of related curriculum content that will ensure that they can be employed fully, even by small schools; have acquired a broad range of teaching strategies and methods, and have developed skills in adapting content and methods to the learning needs of particular students. The Program will support the Government in devising and implementing a strategy for improving the training of teachers. It will also finance the provision of training materials and the implementation of a quality assurance program for teacher education. This subcomponent is estimated to cost US\$2.57 million. The subcomponent would make it possible to use teachers more intensively by preparing them for effective multi-subject teaching or teaching of a second or third subject. The cost of the subcomponent would be recovered in ten years if it were to lead to a 2.5 percent reduction in the number of teachers employed. Analyses of detailed data for Ismayilli district suggest that fully implementing multi-subject teaching and training teachers in two or more subjects would bring down the number of teachers required by more than 300 persons or about 17 percent of the total number of teachers employed. A third subcomponent of the quality improvement component would provide US\$3.27 million in order to provide basic reading materials in Latin Script Azeri Language for all school libraries to stimulate reading habits, support independent learning opportunities, and support extra- and co-curricular programs.

The second component of the Project is intended to improve the financing and management of schools. The first subcomponent will introduce a budgeting system in which funds are provided to schools based on the number of students enrolled in each school. Additional funds will be provided to the Ministry of Education and the district education departments to finance system-wide functions, including policy analysis, research and administration. The new budgeting system will permit school-level management of resources by allowing schools to allocate funds to priority expenditures and to carry over funds from one year to the next. The implementation of school level management of resources will be accompanied by the development of improved accountability for both funds and school performance. These activities will ensure both more effective management of resources devoted to recurrent expenditures and greater responsiveness to local needs and preferences. The cost of implementing these reforms in the three pilot districts is estimated to be US\$0.45 million or approximately US\$3,100 per school. These costs include the introduction of new systems of accounting and performance management and training in their use. The second subcomponent of the Efficiency and Finance Component will address inefficiencies rooted in past capital expenditures. It will provide funds for the consolidation and renovation of schools and the rationalization of staffing. These funds will be allocated on the basis of economic criteria: investments should reduce the present value of the total costs of providing education to a group of students over a planning horizon of 15 years. In order to minimize the cost of technical studies, a three-stage procedure has been devised in which school directors will submit formatted reports on the condition, adequacy and prospective enrollment for each school. These data will be used to identify schools for detailed assessment by engineers, architects and planners. Detailed plans for the repair, renovation and expansion of schools will be prepared for schools that appear to be the most promising candidates for funding. This approach will ensure transparency and efficiency in the allocation of investment resources. The estimated cost of rationalization and school improvement activities is estimated to be around US\$5.42 million.

The third component will improve access to education among the economically disadvantaged through the provision of school grants to schools, especially for poor students for whom the private costs of school attendance are unaffordable. The Program will finance school grants in three districts to upgrade schooling quality based on school-based projects in the three pilot districts, and will monitor their costs and effects to allow the refinement of criteria for the distribution and administration of grants. The cost of the school grant program is estimated to be around US\$0.87 million.

The fourth component of the Program will support improvements in the governance and management of the sector. It will finance (a) the creation of an Education Management Information System; (b) the implementation of a national student assessment and evaluation program; (c) the development of capacity in policy analysis and management in the national and regional government institutions. These three activities are expected to cost about US\$2.33 million. They will facilitate the introduction of modern methods of policy analysis and program management into the education sector.

The fifth component of the Program will support the management of the Program, including procurement, monitoring and evaluation, and financial management. The component is expected to cost US\$ 1.87 million.

c) Social analysis

- Social cost-benefit analysis
 - Socio-cultural analysis (participation, gender, governance)
 - Other social impacts
-

The deterioration of the physical infrastructure, the low salaries of teachers which forces many to look for alternative income, the non-affordability of education for the poor due to direct cost, both formal and informal as well as opportunity cost, have created serious problems of access to education for a certain group of population, mainly the poor. In addition, inequalities in the quality of education available to different population groups exacerbated the situation. Decrease in the quality of education, which is more pronounced in rural areas and poor urban communities, is due to a number of reasons, including: non-availability of teaching materials; textbooks cost which is unaffordable for many poor families; schools that are not conducive to learning (too cold during the winter months, causing up to 25 percent absentees, especially among those who have to walk to school or lack proper clothing; sporadic availability of electricity, mostly in rural areas, small towns, and even big urban areas, causing difficulties in early mornings or in the second shifts; overcrowded schools in urban areas, mainly Baku); decrease in the quality of teaching force due to a lack of proper in-service training, leaving the teaching force for more lucrative professions, most qualified teachers refusing to go outside Baku or big towns, lack of accountability of what is going on in schools in terms of learning (no standard assessment of learning throughout the school year nor any standard teachers' evaluation based on a set of transparent criteria); curriculum which is highly centralized, down to the setting of the syllabus, with set topics and hours for each subject, not allowing for any creativity, is disconnected to the schools and the need of teachers and students (i.e., ask for type of experimentation for which the school lacks the proper instrument, textbooks that are written in a language not comprehensible for the grade they are intended for) and; finally, does not reflect the emerging needs of the society. All of these contributed to the deterioration of the quality and also has exacerbated the inequalities of access to the quality education where the better off have the means to compensate for some of these shortcomings through different means. For example, better off schools, mainly those in central Baku and some other urban areas, have more access to electricity, can buy some of the teaching materials and students can use tutors to compensate for some of the school shortcomings.

The above findings of the social assessment are in line with some of the available data on enrollment by poverty group. Even though the data are based on enrollment, one can deduct that

attendance is even lower than official figures. In Azerbaijan general education (grades 1-11) is compulsory and free of charge. Available enrollment data vary by data sources. Officially, dropout rates during the compulsory cycle are low (about 1-2 percent) but these official figures are based on enrollments rather than actual attendance. However, there are large disparities in enrollment rates among older age students and those at tertiary level by poverty groups, with only 9 percent of poor college age population (ages 17-24) enrolled, compared with 15 percent of non-poor population. Qualitative data also suggest that there are concerns about low attendance rates and poor learning outcomes in general education among the low income groups. The findings of the social assessment for the education sector indicate that poverty and increasing direct costs of education, some of which are informal payments, have reduced school attendance. Main reasons for low attendance among these groups are (i) low income, which, in many cases, forces young students, mainly boys, to work to help their parents; (ii) the direct cost of education (formal and informal); and (iii) change of residence among some IDP families.

The findings of the social assessment indicate that the direct costs of education, some of which are informal payments, have increased substantially. According to the findings of the social assessment, informal payments exist at both the supply and the demand side. At the supply side, in some cases, it consists of buying jobs, paying to have more hours of teaching which then translates to more income. At the demand side, it exists in all levels of the education system, from primary to university education, ranging from paying to get into better schools or better classes with the best teachers within schools; to paying for the basic needs, grades, absenteeism, tutoring, journals and tickets sold by teachers. Financing of schools is highly centralized; however, due to a lack of a nationwide banking system, the directors physically distribute the salaries of the teachers to them. In some cases, it is reported that this creates some control on the part of the school director over the salaries of teachers. One of the institutional characteristics perpetuating this practice is the discretionary power of the directors and district authorities in hiring of teachers and paying their salaries. However, the findings of the social assessment indicate that the majority of informal payments happens in urban areas and among the better off families. According to the findings of the social assessment, private tutoring is also mainly an urban phenomenon among better off families, concentrated in upper secondary grades for university preparation, costing families approximately US\$100 a month. There are no formal fees for school attendance in general education, but many families pay a fee. It is also reported that gifts and school maintenance fees are more widespread. The direct cost of education can often become unaffordable for the poor and low-income families with two or three school age children.

Parental participation in schools is mainly in the form of assisting the schools with the minimum needs, such as collecting money through the teachers/parents association to repair schools or buy some of the materials. Parents, however, do not play a role in the decision-making in schools. In general, parents, teachers and students feel excluded from input into the education process, both in terms of content and decision-making at the school level, which they consider as managed in a non-transparent way. For instance, teachers do not have much say on the content of textbooks and teachers and parents are not always fully aware of what the money collected at the school level is spent on. This is despite the fact that 66 percent of the parents participate in the school's general collection.

While social and poverty-related issues of access and equity are central to education reform and must shape long-term objectives, they can only be achieved in a sustainable manner if quality and relevance of education is improved through efforts such as developing new curriculum, teachers training, and improving the policy and management capacity of the Ministry with a better research capacity to monitor and plan, and a better management information system to record, analyze and plan. Increase of general quality of teachers and teaching environment will help everyone. At the same time, there is a need for some targeted intervention for the poorest who cannot afford to continue based on the reasons mentioned above.

Equity consideration and poverty impact of the Program. Household surveys show that Azerbaijan still enjoys almost universal enrollment rates in basic education, but sharp declines in preschools, upper secondary education (grades 10-11) and vocational education. In higher education, the enrollment rate of the college age population increased slightly as a result of the growth of the private sector. Yet, access to higher education has become a growing concern for the poor during the transition for two main reasons. First, poor children are less likely to attend higher education institutions than well-to-do children since they could not afford the cost of the increased direct cost of higher education. Second, poor children are also less likely to attend higher education than well-to-do children because of the deterioration of the quality of general education, which have reduced chances of poor children to be successful on the centrally organized university entrance examinations. Since many poor schools tend to be located in rural areas, poor children in rural areas have little access to good quality general education. The proposed program will improve access to general education among the economically is advantaged through two main interventions. First, improving the quality of general education in selected poor districts will disproportionately advantage poor students. Improved quality and relevance in general education can not only contribute to the education sector which is more responsive to the needs of the emerging economy and the society, but also can translate to less need for tutoring and less need for direct payments (e.g., textbooks), as well as informal payments, and an education which is responsive to the emerging needs of the society. Second, additional resources (i.e., school grants) will be provided to poor schools and districts in the three districts, which will improve the learning environment of the poor. These districts were selected because they all have lower average income than more affluent districts such as Baku. Therefore, it is expected that relatively poorer students will benefit from the School Grant Program. For example, the School Grant Program aims to address the problems of access and inequities by financing school-based education programs that would upgrade schooling quality. Additionally, the program will emphasize the development of policy analysis and monitoring capacity in the MOE so that relevant indicators can be monitored and analyzed to examine equity effects of education investment and design and implement strategies to improve the fairness of the education process since, at present, Azerbaijan lacks such an analytical capacity.

d) Risk analysis

Risk	Risk Rating	Risk Mitigation Measure
<p>From Outputs to Objective Lack of incentives and the sense of ownership for key staff in line units to effectively implement the project.</p>	<p>H</p>	<ul style="list-style-type: none"> - The number of PCU staff will be minimum, consisting of a core number of specialized staff responsible for procurement, financial management, and monitoring and evaluation, while line units will carry out all technical work. - Project component and sub-component leaders are identified, trained, and held accountable. - Professional development opportunities are planned for key staff throughout project implementation. - Subcomponent coordinators will have coaching/mentoring support from highly qualified and experienced experts in the respective subcomponent areas. - Institutional assessment is carried out, and incentive structures are closely examined and monitored throughout the project's implementation. - Management development and capacity building is also included as an important objective of the project.

<p>From Components to Outputs Project too complex for the Borrower, which has weak implementation capacity to handle large and complex operations.</p>	M	<ul style="list-style-type: none"> - A project management and a procurement advisor will be hired. - Additional project coordination staff to be recruited to reinforce the project coordination and monitoring capacity of the MOE. - A well detailed implementation plan, including a training plan, has been prepared and discussed with MOE officials and other key stakeholders involved in the project.
<p>Lack of incentives and ownership in the key departments to implement specific components.</p>	H	<ul style="list-style-type: none"> - PCU staff will consist of a core number of specialized staff mainly responsible for procurement, financial management, and monitoring and evaluation, while Ministry officials will carry out all technical work as part of the implementation of the reform program. - Project component and sub-component coordinators are identified, trained, and held accountable. - Training and professional development opportunities are to be provided to component and subcomponent coordinators throughout project implementation. - Management, planning and monitoring capacity building is included as an important project objective.

<p>Overall Risk Rating</p>	S	<ul style="list-style-type: none"> - Close and regular supervision of project implementation, and ongoing dialogue with main counterparts as well as other stakeholders will be carried out, especially during the initial phase of project implementation.
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Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

16. Annexes

- a) Environmental impact evaluation
- b) Other supporting reports (seismology, etc)

Sustainability

Political. In 1998, the GOA initiated the education reform program process and requested the Bank's assistance to support the Government's education reform efforts. Since then, IDA has been supporting the Government's reform efforts through the ongoing Education LIL, which has substantially assisted the MOE in the design and implementation of a Bank-assisted project. At present, there is a clear strong commitment to the objectives of the proposed Education Reform Program at all levels of the Government. The proposed Program is also consistent with the State Program on Poverty Reduction and Economic Development (SPPRED), which has been recently published, to ensure that the country's projected economic growth is accompanied by significant poverty reduction. The SPPRED shows the strong commitment of the Government to education reform, which is considered as one of the main factors contributing to poverty reduction in the country. The risks related to the political sustainability of the Project are therefore minimal.

Institutional. There is a strong commitment to the project development objectives in the MOE at the central and local levels. The more important sustainability issue at the MOE level is the challenge to mainstream project activities into the MOE's core activities and increase the sense of project ownership of key units and departments in the MOE. In this regard, the Program will experiment with different ways of increasing the sense of project ownership. First, the proposed implementation arrangements will aim to integrate the Project's activities into the mainstream activities of the MOE. The close parallels between the Bank's assessment of priority reform areas and the MOE's are also encouraging. Second, the Program will also rely on the existing MOE units to implement project activities by strengthening their implementation capacity. The establishment of new units are supported only when the MOE does not have such units.

Financial. At present, the economic environment for education reform in Azerbaijan is not good. However, prospects for substantial economic expansion over the next two decades are bright. The commercial development of the nation's oil reserves is likely to increase gross national production by US\$20 billion to US\$25 billion over the next fifteen years. The parallel adoption of sound economic policies could result in a growth in incomes of 12 to 15 percent a year, leading to a five to eight-fold increase in total output over the next fifteen years. However, such a high rate of growth would require not only excellent economic management, but also very favorable international economic conditions, including high and stable oil prices. A three-fold increase in output per capita appears more likely, implying that by 2018, Azerbaijan would have reached the level of prosperity currently prevailing in such countries as Turkey, Brazil, Latvia and Thailand. Despite such prospects for substantial economic expansion, those revenues will not have a large impact on the budget for 5-8 years, and there are issues of fiscal sustainability before then. Nevertheless, it is estimated that the fiscal impact of Phase 1 of the Program on the Government's recurrent costs for education is very small (e.g., less than 0.1 percent of the MOE's recurrent expenditures in 2002). An economic and fiscal analysis study will also examine the Project interventions and proposed systemic reforms in the fiscal context during the course of project implementation. Civil service salaries (including Ministry officials) are generally very low and have often been seen as one of the contributing factors for the lack of incentives for key staff in line units to effectively implement the Education LIL during the past three years. Unless the civil service salary structure is reformed, it is expected that there continues to be lack of incentives and the sense of ownership of the project for some key staff in line units, despite the introduction of some risk mitigation measures to address this risk.



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TRAINING WORKSHOP FOR TECHNICAL STAFF**

**Prioritization of Investment
Programs and Projects**



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**Quantitative Prioritization:
Introductory Questions**

- Why analyze public investments quantitatively if they are already filtered on policy basis?
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Financial Analysis of Projects: Some Analytical Concepts (cont.)

- **Financial statements:**
 - The “pro forma” statements for future performance of a firm;
 - The Income Statement (Profit and Loss Statement) shows the categories of revenues and expenditures, including non-cash charges to income (depreciation, deferred taxes, etc);
 - The Balance Sheet shows the entity’s assets and liabilities:
 - Current assets: cash and convertible to cash within one year;
 - Fixed assets: land, building, equipment with life of 1 year+;
 - Other long-term assets: cost of R&D and outside engineering;
 - “Statement of Sources and Uses of Funds”

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Commercial Projects

- What are the objectives of the financial analysis?
 - Estimate the “financial worth” of the project (FIRR);
 - Assure “return on equity” is adequate;
 - Assure “financial resources=>investment+operating costs”
 - Cash flow analysis: receipts & payments are synchronized
 - Assure that the “debt service coverage” is provided.
 - Sensitivity analysis.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Commercial Projects (cont.)

- Methods of Analysis: The data in the financial statement is analyzed with the help of some ratios:
 - FIRR= (i) , which makes: $\sum_{t=1}^n \frac{Bt}{(1+i)^t} - \sum_{t=1}^n \frac{Ct}{(1+i)^t} = 0$
 - NPV= $\sum_{t=1}^n \frac{Bt}{(1+i)^t} - \sum_{t=1}^n \frac{Ct}{(1+i)^t}$, where (i) chosen in advance and
if NPV=or>0, the project is acceptable

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Financial Analysis of Commercial Projects (cont.)

- Net Profit = All revenues – All costs
 - Costs = production costs + administrative (overhead) costs + import duties + taxes + depreciation + amortization + interest on debt
 - The best measures of a project's profitability are FIRR and NPV because they consider benefits' and costs' time profiles beyond the annual statements.
 - Some ratios as indicators of the overall efficiency of funds' use:
 - Annual net profit / sales
 - Annual net profit / total assets
 - Annual net profit / equity
- Leverage is the effect of debt on the profitability of an equity investment;
 - The debt / equity ratio measures the effect of debt on the project stability;
 - Consider both short- and long-term debt in computing the debt/equity ratio.

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Financial Analysis of Commercial Projects (cont.)

- The Liquidity Analysis ascertains if all the expected expenses in a year are covered by expected receipts. The relevant ratios:
 - The current ratio = current assets / current liabilities.
 - Current assets=cash+marketable securities+receivables+inventories
 - Current liabilities=taxes+short term loan repayments+annual principal repayments of long term loans+accounts payable
 - The quick ratio ("acid test")=(current assets-inventories) / current liabilities.
 - Debt service coverage=sources of funds/debt service requirement

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Financial Analysis of Commercial Projects (cont.)

- **Sensitivity Analysis:**
 - There will always be sufficient uncertainties in most estimates and assumptions underlying any project's profitability and financial stability; hence need for examining the effects of changes in them.
 - Particularly important factors are: construction and operating costs, sales prices, total production, and the length of construction period.
 - If tests with changes in these factors show that the project will not be financially viable, then estimate the probability of a given change.
- Such assessment of probability is called "risk analysis", and taking steps to minimize it is called "risk management".

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Financial Analysis of Non-Commercial Projects

- **Scope of Analysis:**
 - Most public sector investments are aimed at improving socio-economic infrastructure of the country;
 - Such projects often do not generate any or sufficient revenues;
 - Hence, FIRR and NPV cannot be calculated to justify them;
 - The role of financial analysis is to determine whether the project will
 - Achieve its expected results at the least cost possible, and
 - Have sufficient resources available to meet its costs on time.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Non-Commercial Projects

- **Cost Effectiveness Analysis (CEA):**
 - Benefits and costs are identified, but only costs are monetized;
 - Benefits are difficult or impossible to quantify and to express in monetary terms;
 - CEA can take three basic approaches:
 - First establish the expected result and then examine different means of achieving that result;
 - In the second approach, a predetermined funding is available in a certain area (child health care) and the consequences of using that money in alternative ways are examined;
 - Identify a number of results required for a Strategic Objective and examine the cost differences to achieve them, and then consider which results seem most reasonable in view of the costs involved.
 - Unit cost = (annualized investment costs + annual operating costs) / annual number of output units.

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Financial Analysis of Non-Commercial Projects

- **Recurrent Cost Analysis:**
 - Recurrent costs (operating expenditures) include:
 - Wage and salary payments
 - Utility costs
 - Raw material purchases
 - Maintenance and repair expenses
 - Replacement of worn-out equipment
 - Debt service payments, etc.
 - The financial analysis must examine whether or not sufficient funds are made available to cover these costs when needed during the life of the project.

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Financial Analysis of Non-Commercial Projects

- **Recurrent Cost Analysis:**
 - Prepare the annual budget of the project, containing all operating expenditures and sources of funds;
 - Examine the government's past recurrent cost performance and the projections for the coming years, particularly w.r.t. the project sector
 - If the above analyses show potential problems, then
 - Modify the project design (e.g., user fees and other revenue measures)
 - Analyze the project impact on government revenues and expenditures in case the net revenue impact may justify the needed govt support;
 - Analyze the likelihood of other donors providing support to the project;
 - Analyze the causes of persistent recurrent cost problems and remedies
 - Consider abandoning the project.

AZERBAIJAN REPUBLIC

MINISTRY OF ECONOMIC DEVELOPMENT

Policy-Based Prioritization of Public Investment Projects

A Sample Method

The PIPP Manual emphasized the importance of both micro- and macro-policy-based prioritization of public investment projects for screening and sifting them according to their contribution to the national and sectoral development objectives and strategies, particularly to reduction of poverty and regional imbalances (see par. # 4.6.2.8). Such qualitative (non-quantitative) prioritization, however, involves using various ranking and weighting methods. There are no internationally adopted standard methods that can be recommended for use by GOAZ. MOED and MOF should jointly develop, in cooperation with LMs/agencies and State research institutes, appropriate ranking and weighting systems for policy-based prioritization of public sector projects. Three examples of such systems, which can be found in the web-sites of other countries' planning and budgetary agencies, are provided here to help the subjected understood better.

Example 1: A hypothetical example developed by the USAID/PIP Project:

<u>Policy Criteria</u>	<u>Weights</u>	<u>Projects</u>			
		<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>
A	30	4	3	1	2
B	35	1	4	2	3
C	20	4	1	2	3
D	15	2	3	4	1
TOTAL	100	265	295	200	240

A LM/agency has 4 projects (a, b, c, and d) and ranks them against each of the four policy criteria, which were established and weighted jointly by MOED and MOF and approved by HPPC. The hypothetical Example 1 shows that the LM/agency's projects portfolio comprises 4 projects and they are prioritized as b, a, d, and c on the basis of the four policy-based criteria.

Example 2: The following example is taken from the US Federal Government's General Accounting Office publication

Prioritizing Projects within a Portfolio

Capital assets should be compared against one another to create a prioritized portfolio of all major capital assets. Just as an individual invests in a diverse portfolio of securities, agencies invest in a diverse portfolio of capital assets. For the individual investor, returns are measured in dividends or capital gains. While the benefits and costs

of capital asset portfolios should be quantified in monetary terms when feasible, agencies also measure return on the basis of outputs and outcomes.

For the individual investor, some investments are more risky than others. Similarly, an agency's capital asset investments have various levels of risk. Sound planning for procurement and operational management can mitigate risk. But *all* assets, especially those requiring extensive development work before they can be put into operation, are inherently risky and should be justified by high return. Agencies should choose a portfolio of capital investments that maximize return to the taxpayer and the Government -- at an acceptable level of risk.

One approach to devising a ranked listing of projects is to use a scoring mechanism that provides a range of values associated with project strengths and weaknesses. Figure 8 on the following page shows examples of how some key risk and return criteria might be scored. These examples are drawn from multiple best practices organizations. Higher scores are given to projects that meet or exceed positive aspects of the decision criteria. Additionally, in this example, weights have been attached to criteria to reflect their relative importance in the decision process. To ensure consistency, each of the decision criteria should have operational definitions based on quantitative or qualitative measures. A scoring and ranking process, such as the one depicted in Figure 8, may be used more than once, and in more than just this step to limit the number of projects that will be considered by an executive decision-making body.

An outcome of such a ranking process might produce three groups of projects:

- **Likely winners.** One group, typically small, is a set of projects with high returns and low risk that are likely "winners."
- **Likely drop-outs.** At the opposite end of the spectrum, a group of high-risk, low-return projects that would have little chance of making the final cut.
- **Projects that warrant a closer look.** In the middle is usually the largest group. These projects have either a high-return/high-risk or a low-return/low-risk profile. Analytical and decision-making energy should be focused on prioritizing these projects where decisions will be more difficult. At the end of this step, senior managers should have a prioritized list of capital investments and proposals with supporting documentation and analysis.

Example 3: The following example is taken from the World Bank, "Russia: Towards Improving the Efficiencies of Public Investment Experience", Report No. 22693-RU, pp.62-65.

Sample approach for prioritizing projects

<i>Economic Internal Rate of Return</i>	
Given criterion is useful for comparing projects distinguished by various risk levels. Projects with higher internal rate of return (IRR) value shall have more priority compared to projects with lower IRR.	IRR>60% - 7 points 60%>IRR>40% - 5 points 40%>IRR>30% - 3 points 30%>IRR>20% - 2 points 20%>IRR>10% - 1 point IRR<10% or no calculation - 0 points
<i>Social significance of a project</i>	
<p>Evaluation of a project is based on adequacy to the following aspects of social significance:</p> <ul style="list-style-type: none"> • Provision of housing for public servants and re-deployed servicemen • Improving employment of the population and reduction of unemployment • Improving access to the quality health services • Improving access to the quality education services • Poverty reduction: <ul style="list-style-type: none"> - Provision of sufficient potable water supply to the population - Reduction of death-rates - Improving the scope of secondary education cover - Enhancement of economic opportunities for the poor - Ensuring access to provision of social services for the poor - Coverage of distant rural districts • Environmental concerns of the project 	<p>Evaluation is based on summing-up of applicable aspect-specific points.</p> <p>4 points</p> <p>2 points</p> <p>2 points</p> <p>2 points</p> <p>4 points</p> <p>2 points</p> <p>2 points</p> <p>4 points</p> <p>4 points</p> <p>2 points</p> <p>4 points</p>
<i>Environmental safety of the project</i>	
<p>Evaluation of environmental safety of the project (taking into consideration environmental pollution contingencies and utilization of limited irreplaceable natural resources).</p> <p>Environmental safety of a project</p> <p>A project involves avoidable contingencies</p>	<p>4 points</p> <p>2 points</p>

A project bears high hazard of risk for the environment	(-4) points
<i>Internal co-financing (from the budgetary resources) requirement</i>	
Considering certain difficulties with provision of internal co-finance, absence of the requirement demanding obligatory participation of the Government in co-financing of a part of a project's cost is thought an advantage.	Up to 10% of the overall cost of a project – 4 points 10% to 20% of the overall cost of a project – 2 points More than 20% of the overall cost of a project – (-2) points
<i>Terms of procurement within the framework of a project</i>	
A project that implies procurement of work, goods or services based on competitive bidding, invites maximum possible amount of participants to take part in the bidding and has no restriction on amount and pattern of bidding participants, shall have more priority over the projects that impose restrictions on bidding.	No restriction on bidding – 4 points Purchase of work, goods and services from domestic sources only– (-2) points Bidding is not allowed (instead, work, goods or services are purchased directly) – (-4) points
<i>Project-related risks</i>	
Priority of a project depends on the level of risks involved. Higher risks result in substantial decrease of a project's priority.	Insignificant risks – 3 points Moderate risks – 2 points Substantial risks – 1 point High risks – 0 points
<i>Project implementation evaluation (for current projects)</i>	
Based on use of special indicators each of the projects is evaluated in terms of implementation and accomplishment of tasks and goals set within the framework of the project. Unsatisfactory implementation of a project shall result in less priority compared to the successfully accomplished ones.	Procurement quality: Satisfactory – 1 points Unsatisfactory – (-1) points Compliance with the project implementation timetable: Compliant – 1 points Non-compliant – (-1) points

	<p>Project finance development rates:</p> <p>Satisfactory – 1 points Unsatisfactory – (-1) points</p> <p>Quality of work, goods and services:</p> <p>Satisfactory – 1 points Unsatisfactory – (-1) points</p> <p>Compliance with the tasks and goals of a project:</p> <p>Compliant – 1 points Non-compliant – (-1) points</p> <p>Evaluation of compliance is premature – 0 points</p>
<i>Evaluation of implementer's capacity for maintenance and exploitation of the resources acquired</i>	
Should the end-implementor have no sufficient amount of finance to maintain and utilize/exploit resources purchased on account of borrowed funds (including specialists who are knowledgeable, skillful and experienced enough to be capable of maintaining and utilizing resources purchased), the consequence is less priority of a project.	<p>Sufficient capacity / amount of finance – 2 points</p> <p>Insufficient capacity / amount of finance – (-2) points</p>
<i>Inspecting quality of preparation for a project</i>	
Quality of preparation for a project is being appraised based on availability of detailed project documentation (terms of reference) as well as project auditing results. Absence of detailed Terms of Reference as well as negative auditing results considered disadvantage at evaluation of a project.	<p>Available terms of reference and the auditing results are positive – 2 points</p> <p>Terms of reference are not available or in the making – 0 points</p> <p>Terms of reference are available, yet auditing results are negative – (-2) points</p>
<i>Availability within executive agency (ministry / department) of a structural unit responsible for administering sector investment projects associated with the project under consideration</i>	

<p>Availability within executive agency (ministry / department) of a structural unit (several structural units) that is responsible for administering sector investment projects associated with the project under consideration, and has experience of implementing various international projects is considered advantage at evaluation of the project.</p>	<p>Availability of such executive agency and correspondent experience in implementation of international projects – 2 points</p> <p>Availability of such executive agency – 1 point</p> <p>Absence of such unit – 0 points</p>
<p>Maximum aggregate result: 37 points</p>	

The above weighting scheme gives higher weights to projects for capital repairs and equipment purchases, and against new construction. This is important to address the rapid depreciation of the capital stock and its efficiency. The weighting scheme also gives preference to projects with low future recurrent costs which would help to minimize future costs and enable the sustainability of the new investments.



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Financial Analysis of Projects: Some Analytical Concepts (cont.)

- Financial statements:
 - The “pro forma” statements for future performance of a firm;
 - The Income Statement (Profit and Loss Statement) shows the categories of revenues and expenditures, including non-cash charges to income (depreciation, deferred taxes, etc);
 - The Balance Sheet shows the entity’s assets and liabilities:
 - Current assets: cash and convertible to cash within one year;
 - Fixed assets: land, building, equipment with life of 1 year+;
 - Other long-term assets: cost of R&D and outside engineering;
 - “Statement of Sources and Uses of Funds”

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Commercial Projects

- What are the objectives of the financial analysis?
 - Estimate the “financial worth” of the project (FIRR);
 - Assure “return on equity” is adequate;
 - Assure “financial resources=>investment+operating costs”
 - Cash flow analysis: receipts & payments are synchronized
 - Assure that the “debt service coverage” is provided.
 - Sensitivity analysis.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Commercial Projects (cont.)

- Methods of Analysis: The data in the financial statement is analyzed with the help of some ratios:
 - FIRR= (i) , which makes: $\sum_{t=1}^n \frac{Bt}{(1+i)^t} - \sum_{t=1}^n \frac{Ct}{(1+i)^t} = 0$
 - NPV= $\sum_{t=1}^n \frac{Bt}{(1+i)^t} - \sum_{t=1}^n \frac{Ct}{(1+i)^t}$, where (i) chosen in advance and
if NPV=or>0, the project is acceptable

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Commercial Projects (cont.)

- Net Profit = All revenues – All costs
 - Costs = production costs + administrative (overhead) costs + import duties + taxes + depreciation + amortization + interest on debt
 - The best measures of a project's profitability are FIRR and NPV because they consider benefits' and costs' time profiles beyond the annual statements.
 - Some ratios as indicators of the overall efficiency of funds' use:
 - Annual net profit / sales
 - Annual net profit / total assets
 - Annual net profit / equity
- Leverage is the effect of debt on the profitability of an equity investment;
 - The debt / equity ratio measures the effect of debt on the project stability;
 - Consider both short- and long-term debt in computing the debt/equity ratio.

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Financial Analysis of Commercial Projects (cont.)

- The Liquidity Analysis ascertains if all the expected expenses in a year are covered by expected receipts. The relevant ratios:
 - The current ratio = current assets / current liabilities.
 - Current assets=cash+marketable securities+receivables+inventories
 - Current liabilities=taxes+short term loan repayments+annual principal repayments of long term loans+accounts payable
 - The quick ratio ("acid test")=(current assets-inventories) / current liabilities.
 - Debt service coverage=sources of funds/debt service requirement

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Financial Analysis of Commercial Projects (cont.)

- **Sensitivity Analysis:**
 - There will always be sufficient uncertainties in most estimates and assumptions underlying any project's profitability and financial stability; hence need for examining the effects of changes in them.
 - Particularly important factors are: construction and operating costs, sales prices, total production, and the length of construction period.
 - If tests with changes in these factors show that the project will not be financially viable, then estimate the probability of a given change.
- Such assessment of probability is called "risk analysis", and taking steps to minimize it is called "risk management".

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Non-Commercial Projects

- **Scope of Analysis:**
 - Most public sector investments are aimed at improving socio-economic infrastructure of the country;
 - Such projects often do not generate any or sufficient revenues;
 - Hence, FIRR and NPV cannot be calculated to justify them;
 - The role of financial analysis is to determine whether the project will
 - Achieve its expected results at the least cost possible, and
 - Have sufficient resources available to meet its costs on time.

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Financial Analysis of Non-Commercial Projects

- Cost Effectiveness Analysis (CEA):
 - Benefits and costs are identified, but only costs are monetized;
 - Benefits are difficult or impossible to quantify and to express in monetary terms;
 - CEA can take three basic approaches:
 - First establish the expected result and then examine different means of achieving that result;
 - In the second approach, a predetermined funding is available in a certain area (child health care) and the consequences of using that money in alternative ways are examined;
 - Identify a number of results required for a Strategic Objective and examine the cost differences to achieve them, and then consider which results seem most reasonable in view of the costs involved.
 - Unit cost = (annualized investment costs + annual operating costs) / annual number of output units.

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Financial Analysis of Non-Commercial Projects

- Recurrent Cost Analysis:
 - Recurrent costs (operating expenditures) include:
 - Wage and salary payments
 - Utility costs
 - Raw material purchases
 - Maintenance and repair expenses
 - Replacement of worn-out equipment
 - Debt service payments, etc.
 - The financial analysis must examine whether or not sufficient funds are made available to cover these costs when needed during the life of the project.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Non-Commercial Projects

- **Recurrent Cost Analysis:**
 - Prepare the annual budget of the project, containing all operating expenditures and sources of funds;
 - Examine the government's past recurrent cost performance and the projections for the coming years, particularly w.r.t. the project sector
 - If the above analyses show potential problems, then
 - Modify the project design (e.g., user fees and other revenue measures)
 - Analyze the project impact on government revenues and expenditures in case the net revenue impact may justify the needed govt support;
 - Analyze the likelihood of other donors providing support to the project;
 - Analyze the causes of persistent recurrent cost problems and remedies
 - Consider abandoning the project.

Exercise: Solution
Discounting

Task 1

- a. Using a calculator and discount factors in Table 2, the net present value of Project A using a discount rate of 5 percent is calculated as follows:

$$\begin{aligned}
 &\text{NPV of Project A at 5\%} \\
 &= \text{net benefit flow in Y0} + (\text{net benefit flow in Y1} \times \text{discount factor at 5\% in Y1}) + (\text{net} \\
 &\text{benefit flow in Y2} \times \text{discount factor at 5\% in Y2}) + \dots \text{ until Y10} \\
 &= -1000 + (100 \times 0.952) + (100 \times 0.907) + (100 \times 0.864) + (100 \times 0.823) + (120 \times 0.784) + \\
 &\quad (140 \times 0.746) + (160 \times 0.711) + (190 \times 0.677) + (220 \times 0.645) + (250 \times 0.614) \\
 &= 90.69
 \end{aligned}$$

$$\begin{aligned}
 &\text{NPV of Project A at 10\%} \\
 &= \text{net benefit flow in Y0} + (\text{net benefit flow in Y1} \times \text{discount factor at 10\% in Y1}) + (\text{net} \\
 &\text{benefit flow in Y2} \times \text{discount factor at 10\% in Y2}) + \dots \text{ until Y10} \\
 &= -1000 + (100 \times 0.909) + (100 \times 0.826) + (100 \times 0.751) + (100 \times 0.683) + (120 \times 0.621) + \\
 &\quad (100 \times 0.564) + (100 \times 0.513) + (100 \times 0.467) + (100 \times 0.424) + (120 \times 0.386) \\
 &= 169.05
 \end{aligned}$$

and so on for Projects B to F.

NB. Using Excel spreadsheet, the NPV is calculated using a built-in formula as follows:
 =NPV(discount rate, net benefit range from Y1 to Y10)

- b. The IRR is calculated as that rate of discount at which NPV = 0. Taking Project A where there is a positive NPV at 5% discount and a negative NPV at 10% discount, respectively, the IRR must lie between this range. It can be found iteratively by repeating the calculation of NPV at various discount rates until a value close to zero is found.

Alternatively, it can be found using the following formula (which is solved for IRR):

$$\frac{\text{NPV @ 5\%}}{\text{NPV @ 5\%} - \text{NPV @ 10\%}} = \frac{5\% - \text{IRR}}{5\% - 10\%}$$

$$\begin{array}{rcl}
 \text{For Project A,} & & \\
 90.69 & & .05 - \text{IRR} \\
 \hline
 90.69 - (-169.05) & = & .05 - .10 \\
 \\
 90.69 & & .05 - \text{IRR} \\
 \hline
 259.74 & = & -.05
 \end{array}$$

$$(90.69 * -.05) = 259.74 * (0.05 - \text{IRR})$$

$$-4.5345 = 12.987 - (259.74 * \text{IRR})$$

$$-17.5215 = (259.74 * \text{IRR})$$

$$-17.5215 = \text{IRR} = 0.06745 = 6.75\%$$

$$\frac{-17.5215}{-259.74}$$

NB. Using Excel spreadsheet, the IRR is calculated as follows:
 =IRR(net benefit flow from Y0 to Y10, guess for IRR)

c. See Table 1

Table 1: Net Benefit Flows (\$'000)

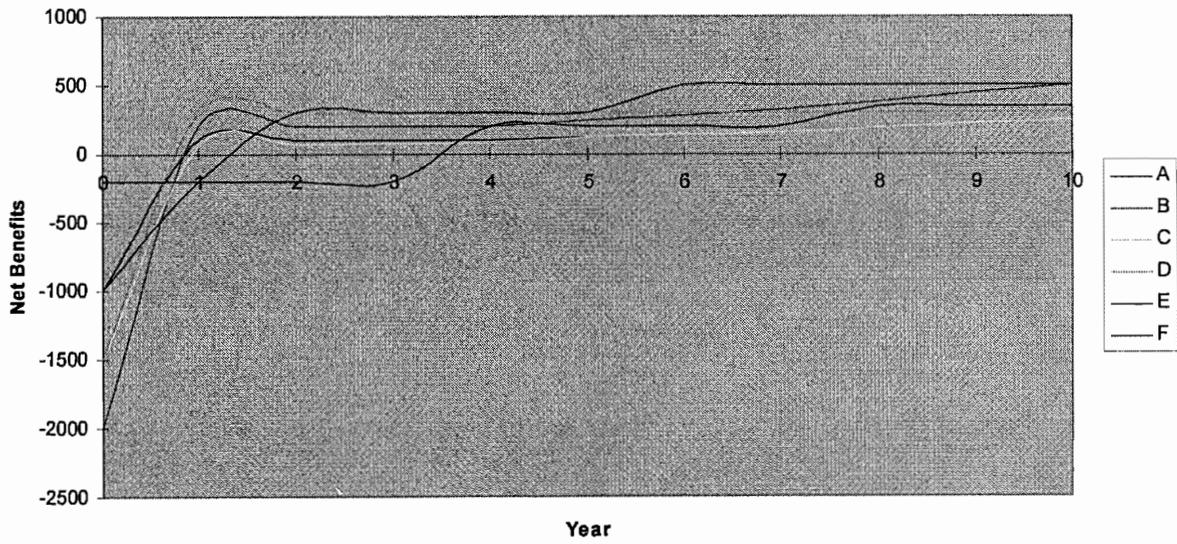
Year	A	B	C	D	E	F
0	-1000	-2000	-1500	-1500	-1000	-200
1	100	200	60	300	-200	-200
2	100	200	70	300	300	-200
3	100	200	80	300	300	-200
4	100	200	90	300	300	200
5	120	240	120	300	300	200
6	140	280	140	300	500	200
7	160	320	160	300	500	200
8	190	380	190	300	500	350
9	220	440	220	300	500	350
10	250	500	250	300	500	350
NPV @ 5% =	\$90.69	\$181.38	(\$500.12)	\$816.52	\$1,518.78	\$545.35
NPV @ 10% =	(\$169.05)	(\$338.10)	(\$752.06)	\$343.37	\$859.58	\$225.59
IRR =	7%	7%	-1%	15%	22%	16%

Task 2

- a. Projects A and B have the same internal rate of return, but project B is twice as big as project A.
- b. To give Project C a positive NPV at 5% discount rate, the benefit in year 10 should be changed to at least 1,065. At a 10% discount rate, this should be changed to at least 2,201.
- c. Among projects D, E, and F, project E is the most attractive, having the highest NPV and IRR.

- d. Project F has a slightly higher IRR but significantly lower NPV than project D. Project D contributes more to the economy than project F.
- e. If the economic opportunity cost of capital is 12%, projects D, E, and F could be considered viable. If it is 15.5%, only projects E and F could be considered viable.
- f. See following chart.

Net Benefits from 6 Projects



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Hesabat No: 31485-AZ

ELEKTRİK ÖTÜRÜCÜ SİSTEMİ LAYİHƏSİ

ÜZRƏ

AZƏRBAYCAN RESPUBLİKASININ DÖVLƏT ZƏMANƏTİ ALTINDA

“AZƏRENERJİ” ASC-yə

TƏKLİF OLUNAN 48 MİLYON ABŞ DOLLARI

MƏBLƏĞİNDƏ KREDİT

LAYİHƏSİNİN QIYMƏTLƏNDİRİLMƏ SƏNƏDİ

17 MAY 2005-Cİ İL

Bu sənədin yayımı məhduddur və ancaq alıcı tərəfindən xidməti vəzifələrinin yerinə yetirilməsi zamanı istifadə oluna bilər. Sənədin məzmunu Dünya Bankının icazəsi olmadan açıqlana bilməz.

VALYUTA EKVİVALENTLƏRİ

(31 mart 2005-cü il tarixə Mübadilə Kursu)

Valyuta vahidi = Manat (AZM)
1 Manat = US\$0.0002
US\$1 = 4852 Manat

MALİYYƏ İLİ

1 Yanvar – 31 Dekabr

AKRONİMLƏR VƏ ABBREVIATURALAR

EİM (BCC)	Ehtiyat İdarəetmə Mərkəzi (elektrik enerjisinin paylanması üçün)
AYİB (EBRD)	Avropa Yenidənqurma və İnkişaf Bankı
İDRN (EIRR)	İqtisadi Özlünü Ödəmə Norması
ƏMİP (EMP)	Ətraf Mühitin İdarəetmə Planı
AİS (EMS)	Avtomatik İdarəetmə Sistemi – SCADA sistemi vasitəsi ilə idarə olunan enerjinin istehsalı və ötürülməsi üzrə müasir idarəetmə proqramları sistemi
MDRN (FIRR)	Maliyyə Daxili Rentabellik Norması
KSİ (FSU)	Keçmiş Sovet İttifaqı
YG (HV)	Yüksək Gərginlikli
BYİB (IBRD)	Beynəlxalq Yenidənqurma və İnkişaf Bankı
BİA (IDA)	Beynəlxalq İnkişaf Agentliyi
DYDŞ (IDP)	Daxildə Yeri Dəyişdirilmiş Şəxs
BMQ (IFI)	Beynəlxalq Maliyyə Qurumu
ETVSC (ISDS)	Ehtiyat Tədbirləri üzrə Vahid Sorğu Cədvəli
YBƏB (JBIC)	Yaponiyanın Beynəlxalq Əməkdaşlıq Bankı
KfW	Bərpa etmə üzrə kredit müəssisəsi (Almaniya)
MİM (MDG)	Minilliyin İnkişaf Məqsədləri
MDM (NDC)	Milli Dispetçer Mərkəzi
XCD (NPV)	Xalis Cari Dəyər
LQS (PAD)	Layihənin Qiymətləndirilmə Sənədi
LKQ (PCN)	Layihə Konsepsiyası üzrə Qeyd
LMS (PID)	Layihə Məlumat Sənədi
LİQ (PIU)	Layihə İcra Qrupu
YTR (PLC)	EVX üzrə Yüksək Tezlikli Rabitə – enerji sistemdə olan tele-rabitə avadanlıqlarına aid
YASK (PRSC)	Yoxsulluğun Azaldılması Strategiyası üzrə Kredit
YASS (PRSP)	Yoxsulluğun Azaldılması Strategiyası üzrə Sənəd
UTQ (RTU)	Uzaq Terminal Qurğu – stansiyalarda və yarımstansiyalarda quraşdırılmış SCADA avadanlığı
SCADA	İnformasiya Araşdırma və Dispetçer Nəzarət Sistemi – enerji istehsalının və ötürülməsinin kompyuterləşdirilmiş idarəedilməsi sistemi
SPPRED	Yoxsulluğun Azaldılması və İqtisadi İnkişaf üzrə Dövlət Proqramı

Vitse-Prezident:	Şigeu Katsu
Ölkə üzrə Menecer/Direktor:	D-M Dausett-Koirolo
Sahə üzrə Menecer:	Peter D. Tomson
Proqram Qrupun Rəhbəri:	Byorn Hamso

AZƏRBAYCAN
Elektrik Ötürücü Sistemi Layihəsi

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ELEKTRİK ÖTÜRÜCÜ SİSTEMİ LAYİHƏSİ

LAYİHƏNİN QIYMƏTLƏNDİRMƏ SƏNƏDİ

AVROPA VƏ MƏRKƏZİ ASİYA

İnfrastruktur və Energetika sahəsi

<p>Tarix: 17 may 2005-ci il Ölkə üzrə Direktor: D-M. Dausett-Koirolo Sahə üzrə Menecer: Peter D. Tomson</p> <p>Layihə No: P083341</p> <p>Maliyyələşdirmə vasitəsi: Specifik İnvestisiya üzrə Kredit</p>	<p>Qrupun Rəhbəri: Byorn Hamso Sahələr: Enerji (100%) Mövzu: Özəl sektorun inkişafı üçün infrastruktur üzrə xidmətlər (P); Tənzimləmə və rəqabət siyasəti (P); Regional inteqrasiya (S) Ekoloji seçmə kateqoriyası: Qismən qiymətləndirmə Ehtiyat tədbirləri üzrə seçmə kateqoriyası: Heç bir təsiri yoxdur</p>
---	---

Layihənin Maliyyə Məlumatları

[X] Kredit [] Borc [] Qrant [] Zəmanət [] Digər:

Kreditlər/Digərlər üçün:

Cəmi Bank maliyyələşdirməsi (milyon ABŞ dolları.): 48.00

Təklif olunan şərtlər: FSL (fərqi sabit kredit)

Maliyyələşdirmə Planı (milyon ABŞ dolları)

Mənbə	Yerli	Xarici	Cəmi
BORCALAN	7.30	0.10	7.40
BEYNƏLXALQ YENİDƏNQURMA VƏ İNKİŞAF BANKI	0.57	47.43	48.00
Cəmi:	7.87	47.53	55.40

Borcalan: Azerenerji (Açıq Tipli Səhmdar Cəmiyyəti)

Cavabdeh Agentlik: Azərenerji

Akademik Əbdülkərim Əlizadə küç 10

Bakı, AZ 1005

Azərbaycan

Əlaqə üzrə şəxs: Cənab Təyyar İbrahimov, Layihənin Direktoru

Tel: +(994 12) 498 41 84

Fax: +(994 12) 498 55 23,

E-mail: teyyar@azerenergy.com

Maliyyə İli	06	07	08	09	10	11
İllik	9.11	19.42	14.50	4.50	0.47	0
Ümumi	9.11	28.53	43.03	47.53	48.00	

Layihənin İcra Dövrü:	Avqust 2005 – İyun 2010
Qüvvəyəminmənin Gözlənilən Tarixi:	17 Avqust, 2005
Sona Çatmanın Gözlənilən Tarixi:	31 Dekabr, 2010

Layihə öz məzmunu və ya onun hər hansı bir əhəmiyyətli hissəsi Ölkəyə Yardım Strategiyasının şərtlərini (CAS) pozurmu?	[] Hə [x] Yox
Layihə Bankın yürütdüyü siyasətdən hər-hansı müstəsna tələb edirmi?	[] Hə [x] Yox
Bunlar Bank rəhbərliyi tərəfindən təsdiq edilmişdirmi?	[] Hə [] Yox
Direktorlar Şurasının yürütdüyü siyasət üzrə hər-hansı müstəsna tələb edilmişdirmi?	[] Hə [] Yox
Layihə hər-hansı “yüksək” və ya “əhəmiyyətli” kimi qiymətləndirilən böhranlı riskləri özündə əks etdirirmi?	[x] Hə [] Yox
Layihə yerinə yetirilmə işlərinə hazırlılıq üçün Regional kriteriyalara cavab veririmi?	[x] Hə [] Yox

Layihənin həyata keçirilməsinin məqsədi: İlkin olaraq layihənin məqsədi yüksək-gərginlikli elektrik veriliş xətləri şəbəkəsinin idarə olunmasının və istismarının yüksəldilməsi işlərini maliyyələşdirmək yolu ilə Azərbaycanda elektrik enerjisi ilə təchizatın etibarlılığını, keyfiyyətini artırmaq və iqtisadi səmərəliliyin əldə olunmasıdır.	
Layihənin təsviri <i>A: Enerji Sistemin İdarəedilməsi.</i> Elektrik enerjisi üzrə dispetçer sisteminin modernləşdirilməsi (SCADA, Avtomatik İdarəetmə Sistemi (EMS), tele-rabitə, ölçü) <i>B: Ötürücü Sistemin Bərpası.</i> Yarımstansiyaların və elektrik veriliş xətlərinin bərpası. <i>C: İdarəetməyə Yardım.</i> Şirkət rəhbərliyinə yardım, bura Beynəlxalq Maliyyə Hesabat Standartlarının istifadəsinə və gələcək restrukturizə olunmuş enerji sektoruna hazırlıq işlərinə yardımlar daxildir. <i>D: Layihənin Yerinə Yetirilməsi.</i> Layihənin idarə olunmasına, satınalma işlərinə, təlimlərin aparılmasına və digər işlərə yardım.	
Əgər varsa, hansı ehtiyat tədbirlərinin görülməsinə səbəb olmuşdur? Layihə ətraf mühitin qiymətləndirilməsi üzrə ehtiyat tədbirlərin görülməsinə təkan verir. İlkin ekoloji kateqoriya dərəcəsi: B	
Əgər varsa, əhəmiyyətli, qeyri-standart şəraitlər üçün: Direktorlar Şurasına təqdimat: Olmamışdır. Kreditin/Borcun effektivliyi: Yoxdur Layihənin yerinə yetirilməsi üçün müvafiq razılaşmalar: <ul style="list-style-type: none"> • Zəmanətçi (Azərbaycan Respublikası) Borcalanı illik əsasda maliyyə və/və ya natural şəkildə istənilən köməkliyi göstərəcəkdir ki, Borcalan həyata keçirdiyi əməliyyatları daha effektiv və hərtərəfli şəkildə yerinə yetirsin və Zəmanət Sazişinə uyğun olaraq, üzərinə götürdüyü öhdəliklərə cavab verə bilsin. • Zəmanətçi Bankı razı salacaq və Borcalanı (Azərenerji) 31 Dekabr 2010-cu il tarixdən gec olmayaraq, əməliyyat xərclərinin tam ödənilməsinə əldə etməyə imkan verəcək orta müddətli tarif siyasətini inkişaf etdirəcəkdir. • Azərenerji özünün illik təmiz gəlirləri ilə borc xidməti üzrə maksimum tələb arasında nisbətən heç olmazsa 1.5:1 olana qədər, özünün likvidlik əmsalını (dövriyyə vasitələrinin qısa müddətli öhdəliklərə nisbəti) 1.2:1-ə nisbətində saxlayacaqdır və əlavə borc almaqdan çəkinəcəkdir. • Azərenerji yerli Layihə Hesabı açacaq və gözlənilən birləşmə maliyyələşdirmə üzrə yerli tələbləri keçməmək şərti ilə ən azı sonrakı 3 ay ərzində bu hesabda balansını təmin edəcəkdir. 	

A. STRATEJİ MƏZMUN VƏ ƏSASLANDIRMA

1. Ölkə və sektor üzrə problemlər

Sovet İttifaqından müstəqillik qazandıqdan sonra Azərbaycan digər MDB ölkələri kimi keçid dövrünün bir çox problemləri ilə qarşılaşdı. Bununla bərabər ölkənin problemləri müharibə, böyük sayda qaçqın və köçkünlərlə və Məcburi Köçkünlər (MK) əlaqədar daha da ağırlaşdı. Nəticədə bugünkü günə Azərbaycan Avropa və Mərkəzi Asiya Regionunun ən aşağı gəliri olan yeddi ölkəsindən biridir. Lakin dənizdə aşkarlanan böyük neft və qaz yataqları ölkənin böyük gələcəyindən xəbər verir. Hazırda bu yataqlar özəl sektorla birgə əməkdaşlıq şəraitində işlənir.

Azərbaycan yaxın illərdə maliyyə-kredit sahəsində davamlı olaraq həyata keçirdiyi siyasət nəticəsində iqtisadi stabilliyə nail olmuşdur. Neft və qaz istehsalı planlaşdırılan göstəricilərə uyğun olmuş, ÜDM 2002-ci ildə 10.6 faizdən 2003-cü ildə ataraq 11.2 faiz təşkil etmişdirki, buna da həyata keçirilən ağıllı siyasət və neftə olan yüksək qiymətər səbəb olmuşdur. Lakin, neft istehsalı özünün pik göstəricisinə ancaq 2010-cu ildə çatması gözlənilir və Hökumət yeni iş yerlərinin açılması və gəlirlərin artırılması üçün qeyri-neft sektorunda çoxşaxəli inkişafı təmin etməlidir. 1999-cu ildən etibarən idarəetmədə və korrupsiyaya qarşı mübarizədə əhəmiyyətli nailiyyətlər əldə olunmağına baxmayaraq, biznes mühitini daha da əlverişli etmək üçün görüləsi çox işlər hələ də qalmaqdadır.

Yoxsulluq çox ciddi məsələdir, bu da qismən böyük sayda qaçqın və məcburi köçkünlərin (təxmini bir milyona yaxın) olmasından, qismən də əmək tutumlu sektorlara və köməkçi infrastruktura kifayət qədər investisiyaların yatırılmamasından yaranmışdır. 2002-ci ilin göstəricilərinə görə əhalinin təxmini 47 faizi yoxsulluq həddində və 9 faizi isə yoxsulluq həddindən aşağı səviyyədə yaşayır. Azərbaycan üçün Yoxsulluğun Azaldılması Strategiyası üzrə Sənəd (PRSP) altı strateji bölməni əks etdirir: (i) gəlir əldə etmək üçün müvafiq mühitin olması; (ii) makro-iqtisadi stabillik; (iii) keyfiyyətli və düzgün təhsil və tibbi xidmətdən bərabər istifadə imkanları; (iv) infrastruktura üzrə inkişafın olması (bura yollar, kommunal xidmətlər, və irriqasiya daxildir); (v) həssas əhali qrupuna daha effektiv xidmət göstərmək üçün sosial müdafiə islahatları; və (vi) qaçqın və məcburi köçkünlər və DYDS-lər üçün daha yaxşı şərait. Azərbaycan yoxsulluğa qarşı mübarizədə nailiyyətlər əldə edir və 2004-cü ildə pensiyalar və minimum əmək haqqı əhəmiyyətli dərəcədə artırılmışdır.

Müstəqillikdən sonra enerji sektorun vəziyyəti pis vəziyyətdə idi. Bərpa və əlavə güclərin yaradılması işlərinə kifayət qədər maliyyələşdirmə mənbələrinin olmaması səbəbindən istehsal gücü azalmış və hazırda elektrik enerjisinə olan yerli tələbatı ödəməyə adekvat deyildir. Ölkənin çox hissəsi elektrik enerjisini gün ərzində bir neçə saat ala bilər. Tez-tez baş verən elektrik enerjisi üzrə məhdudiyətlər sistemin dayanıqlığını pisləşdirir və sistem üzrə qəzaların baş verməsinə səbəb olur. Əlavə olaraq, sektor maliyyə cəhətdən dayanıqlı deyildir. Azərenerji (enerji istehsal və ötürülməsi işlərini yerinə yetirən və həmçinin, təklif olunan bu layihə üzrə cavabdeh olan dövlətə məxsus şirkətdir) elektrik stansiyalarında istifadə olunan yanacağa (təbii qaz və mazut) və idxal olunan elektrik enerjisinə görə ödənişlərin yerinə yetirilməsi ilə əlaqədar Dövlətin ayırdığı maliyyə yardımlarından çox asılıdır. Keçmiş sovet ittifaqına daxil olan digər ölkələrdə sistemin pis işləməsində oxşar olan səbəblər: (i) investisiyanın və texniki xidmətin adekvat

səviyyədə olmaması, xüsusən də müstəqillik qazanıldıqdan sonra; (ii) tariflərin və yığımın adekvat olmaması; və (iii) sistemin vahid enerji sisteminin bir hissəsi kimi nəzərdə tutularaq fəaliyyət göstərməsi. Problemlər Dağlıq Qarabağda gedən müharibə ilə əlaqədar daha da çətinləşmişdir. Bununla belə, yaxın illərdə enerji sistemə Beynəlxalq Maliyyə Qurumlarından (İFİs) əhəmiyyətli investisiya yatırımları edilmişdir və Azərenerjinin Dövlətdən maliyyə asılılığı Hökumətin yürüdəcəyi tarif siyasətindən və onun enerji paylanması işləri üçün tutacağı özəlləşdirmə strategiyasından ibarət olan siyasi məsələlərlə bağlıdır. 2002-ci ildə Hökumət elektrik paylayıcı şəbəkəni yenidən təşkil edərək, onu dörd regional şirkətlər arasında bölüşdürmüş və özəl şirkətlərlə uzun müddətli müqavilələr bağlamışdır (bax Əlavə 1). İnvestorları və operatorları cəlb etmək üçün Hökumət, distribyutorlara son istifadəçilərdən ödəniş üzrə yığımları təşkil etdikləri bir vaxtda, Azərenerjidən aldıkları elektrik enerjisinə görə ödənişlərin bir hissəsinin ödənilməsinə təxirə salmışdır. 2010-cu ildə paylayıcı şirkətlərdən Azərenerjiyə ediləcək ödənişlər 100 faiz həcmində olacağı planlaşdırılmışdır.

Əhalinin həyat standartlarının gücləndirilməsi üçün vacib tələblər keyfiyyətli elektrik enerjisi təchizat və digər kommunal xidmətlərin göstərilməsidir. Hökumət bu ehtiyacları aradan qaldıran strategiyayı müəyyən etmişdir və bu Yoxsulluğun Azaldılması Dəstək Kreiti üçün (PRSC-I, 2005) İnkişaf Siyasəti barədə Məktubda (İSM) əks olunmuşdur. Bu strategiyanın beş komponenti mövcuddur:

- Kommunal xidmətlərin göstərilməsində özəl sektorun iştirakının artırılması;
- Kommunal xidmətləri təmin edən şirkətlər üçün çəkilən xərclərin tam ödənilməsinə keçidi daxil etməklə, Azərbaycan üçün orta tarif siyasətinin tətbiq olunması;
- 2008-ci ilin yanvar ayının 1-dən gec olmayaraq dövlətə məxsus müəssisələrin BMHS-nin tətbiq etməsinə tələb edən yeni Mühəsibat haqqında Qanunun qəbul edilməsi və tətbiq edilməsi ilə beynəlxalq maliyyə hesabatı standartlarının həyata keçirilməsi;
- İlk olaraq, elektrik enerjisi, qaz, su və kanalizasiya sektoru üzrə müstəqil tənzimləyici agentliyinin yaradılması ilə müvafiq tənzimləmə mühitinin yaradılması; və
- Yeni Rəqabət haqqında qanunun qəbul edilməsi ilə rəqabət mühitinin gücləndirilməsi.

İnkişaf Siyasəti barədə Məktubda (İSM) qeyd edilmiş strategiyanın elementləri əhaliyə effektiv və rentabelli xidmətin göstərilməsinə özəl sektorun əhəmiyyətli səviyyədə iştirakına imkan verən, maliyyə cəhətdən dayanıqlı və özünü ödəmə qabiliyyətli kommunal sektora Hökumətin baxışlarını dəstəkləmək üçün planlaşdırılmışdır. İSM-nin detalları Əlavə 1-ə verilən Qoşma 1-də əks edilmişdir.

Hökumət, həmçinin, istehlakçılara Azərbaycanın daxilində göstərilən kommunal xidmətlərin mümkünlüyünə zəmanət vermək üçün bu sahənin ehtiyacları barədə tam məlumatla malikdir. Belə ki, iqtisadiyyat inkişaf etməkdə davam edir, əhalinin alıcılıq qabiliyyəti artmaqdadır və, bununla bərabər, yüksək qiymətlərlə göstərilən kommunal xidmətlərə ödəmə qabiliyyəti də artır. Bundan əlavə məqsədli sosial müdafiə üzrə tədbirlərin hazırlanması və yerinə yetirilməsi, bu proses hal-hazırda inkişaf mərhələsindədir, zəmanət verəcəkdir ki, əhalinin qiymət artımına daha çox həssas olan hissəsinə qiymətlərin artmasına, və son olaraq, istehsal xərclərini tam ödəməyə imkan verən səviyyəyə çatmasına baxmayaraq, əsas kommunal xidmətlərin göstərilməsi davam edəcəkdir. Bütün bu mülahizələri nəzərə alaraq, Hökumət ilkin addım kimi 2005-ci ilin yanvar

ayının1-dən qazın və su təchizatı üzrə qiymətlərin artırılmasına qərar vermiş, lakin, elektrik enerjisi tariflərinin artırılmasını daha gec tarixə qədər təxirə salmışdır.

2. Bankın cəlb olunması üçün əsaslandırma

Mövcud olan beynəlxalq və yerli mühitdə Azərbaycan üçün özəl sektor tərəfindən enerji sistemin tam bərpası üçün lazım olan həcmdə maliyyələşdirmə imkanı mümkün deyildir. BMQ(IFIs)/donorlar (AYİB, KfW, İİB və BYİB) sektorda yeni güclərin yaradılmasına və istehsalın bərpası və ötürülməsi məqsədləri üçün əhəmiyyətli maliyyə yardımları etmişdir və bundan sonra da edəcəkdir ki, bununla da keçmiş 20 il ərzində sistemə göstərilən laqeyd münasibətin nəticələri aradan qaldırılır. Bununla belə, bəzi avadanlıqlar 50 il ərzində istismar olunur və bu da sistemin etibarlığına təhlükə yaratmaqdadır. Bank maliyyə boşluqlarını doldurmağa kömək etməklə bərabər, Hökumət ilə birgə fəaliyyət göstərərək, özəl sektorun maliyyə mənbələrinin sektora cəlb olunması üçün struktur, qanunvericilik və tənzimləmə mexanizmlərinin əldə olunması kömək edə bilər. Təklif olunan layihə sektor islahatlarına əlavə ola bilər, hansı ki, öz növbəsində ötürücü sistemin bərpası və güc ötürmə sisteminin nizamlanması lazım olan investisiya ehtiyaclarını təmin etmək yolu ilə Bankın nizamlayıcı əməliyyatları ilə dəstəklənir. Ötürümə enerji sistemin onurğa sütunudur və adekvat dispetçer sistemində hazırki çatışmamazlıqlar qeyri-effektiv əməliyyatların və təchizatın mühafizəsi üzrə riskin yaranmasına səbəb olur. Bank layihə üzrə və KSI respublikalarında ötürücü sistemin bərpası layihələrinin yerinə yetirilməsi üzrə böyük təcrübəsini və burada əldə olunan və Azərbaycan üçün məqbul olan bilikləri təklif edə bilər.

3. Layihənin həyata keçirilməsindən əldə olunacaq nailiyyətlər

Elektrik ötürücü sistemin bərpası üçün təklif olunan layihə YASS-a (PRSP) bir çox yollarla öz tövhəsini verəcəkdir, xüsusən də:

- Fasiləsiz elektrik enerjisi ilə təchiz etmək yolu ilə iqtisadi artım üçün şəraitin yüksəldilməsi;
- Ötürücü sistemin texniki və maliyyə cəhətdən idarə olunmasını yüksəltmək yolu ilə elektrik enerjisini dəyərinin azaldılması; və
- Müqavilə tələblərinə uyğun olaraq elektrik ötürücü və dispetçer xidmətlərini yerinə yetirməyə imkan verən elektrik ötürücü sistemin modernləşdirilməsi ilə enerji infrastrukturunun inkişafında özəl sektorun cəlb edilməsi üçün bünövrənin təkmilləşdirilməsi.

Layihə sosial xidmətlərin və infrastrukturda azaldılmanı dəyişdirmək yolu ilə xidmətlərin əldə olunması yaxşılaşdırmaq kontekstində Ölkəyə Yardım Strategiyası üzrə investisiya proqramına daxil edilmişdir. Bu hazırki ÖYS-in (CAS) dörd strateji məqsədlərindən biridir.

B. LAYİHƏNİN TƏSVİRİ

1. Maliyyələşdirmə Vasitələri

Azərbaycan BİA-dan (IDA) və eləcə də Bankdan BYİB (IBRD) kreditlərini əldə etmək üçün “qarışıq ölkə” kimi təyin olunmuşdur. BİA tərəfindən məhdud maliyyələşdirmə ilə Hökumət, Elektrik Ötürücü Sistemi Layihəsinə cəlb olunmuş hüquqi şəxsin BYİB tərəfindən maliyyələşdirməsi variantını seçmişdir. Təklif olunan layihə BYİB maliyyələşdirilmə şərtləri ilə verilərək Spesifik İnvestisiya Krediti olacaq. Ölkəyə daxil olan xarici valyutada neft ixracının əhəmiyyətini nəzərdə tutaraq, Hökumət və Azərenerji, kredit üzrə valyutanı ABŞ dollarında olmasını qərarlaşdırılmışdır. Azərenerji Fərqi Sabit Kredit (FSL) kimi maliyyələşdirmə vasitəsinə üstünlük verməsi barədə Bankı məlumatlandırmışdır.

2. Layihənin hazırlanması məqsədi və əsas göstəricilər

Layihənin əsas məqsədi Azərbaycanda elektrik enerjisinin ötürülməsi üzrə əməliyyatların effektivliyinin generasiya/ötürmə vahidlərinin institusional və texniki gücləndirilməsi yolu ilə yüksəldilməsidir. Layihənin ikinci məqsədi Azərenerjinin maliyyə vəziyyətinin gücləndirilməsidir.

Layihənin inkişaf məqsədlərinin yerinə yetirilməsini qiymətləndirən əsas texniki göstəricilər aşağıdakılardır:

- Ötürmə zamanı yaranan itkilərin azaldılması və dispetçerləşdirmə prosesinin iqtisadi cəhətdən səmərəli yerinə yetirilməsi ilə hər bir kVts elektrik enerjisinin istehsalına sərf olunan yanacaqın miqdarının azaldılması;
- Tezliyin və açılmaların sürəkliliyi ilə əlaqədar təchiz olunan elektrik enerjisinin etibarlılığının və keyfiyyətinin artırılması;
- Maliyyə vəziyyətinin (yəni, ehtiyaclar üçün Hökumət maliyyə yardımlarının azaldılması/kəsilməsi) (a) bütün xərcləri ödəməyə imkan verən tariflərin tətbiqi və (b) enerji haqları üzrə yığımlarının faizlərinin artırılması yolu ilə gücləndirilməsi.

Məqsədlər və daha çox təfsilatlar üçün Əlavə 3-ə baxmalı.

3. Layihənin komponentləri

Komponentlər enerji sistemin ehtiyaclarının təcili tələblərinə əsaslanaraq seçilmiş və AYİB-in hazırladığı enerjinin istehsalı və BYİB tərəfindən maliyyələşdirməyə əlavə olaraq, KfW-nin ötürücü sistemin komponentlərinin maliyyələşdirilməsi layihələri ilə BMQ-lər (IFIs) arasında cəmləşdirilmişdir. Layihənin aşağıdakı kimi göstərilmiş dörd komponenti vardır:

Komponent A: Enerji Sistemin İdarə Olunması (Dəyəri: Proporsional olaraq, A və B Komponentləri üçün 50.6 milyon ABŞ dolları)

Layihənin birinci komponentinə daxildir: ölkədə elektrik enerjisinin dispetçer sisteminin təkmilləşdirilməsi üçün investisiyalar, o da öz növbəsində elektrik sektorunda səmərəli,

təhlükəsiz və etibarlı əməliyyatların görülməsini təmin edəcək və gələcəkdə elektrik enerjisinin təpəndə bazarında maliyyə nizamlanmasını yüngülləşdirəcəkdir. Burada üç əsas sub-komponentlər mövcuddur (təfəsilatı ilə Əlavə 4-də təsvir edilmişdir):

- **SCADA/EMS sistemi¹:** kompyuter texnikasının və proqram təminatının quraşdırılması elektrik stansiyalarından və YG ötürücü yarımstansiyalardan real vaxt rejimində əməliyyat məlumatlarını əldə etməyə, Milli Dispetçer Mərkəzində sistemin analizini və monitoringini aparmağa, və elektrik stansiyalarını və YG ötürücü sistemin idarəedilməsini və güc ötürmə əməliyyatlarını yerinə yetirməyə imkan verəcəkdir.
- **Tele-rabitə şəbəkəsinin təkmilləşdirilməsi:** ötürmə, ölçmə və YG şəbəkədə əməliyyatların və texniki xidmət üzrə tələblərə cavab vermək üçün rabitə avadanlıqlarının quraşdırılması. Bu həmçinin, Azərenerjidə maliyyə və inzibati idarəetməni təkmilləşdirilməni dəstəkləmək üçün Azərenerjinin baş ofis ilə elektrik stansiyaları arasında “geniş zolaqlı” rabitə vasitələri ilə (bu eyni zamanda səs, video görünüşün və məlumatların verilməsi üçün texnologiyadır) əlaqənin yaranmasını təmin edəcəkdir.
- **Stansiya üzrə adaptasiya və ölçmə:** elektrik stansiyaları və yarımstansiyalarında idarəetmə və ölçü sxemlərinin və avadanlıqlarının adaptasiya olunması UTQ-ə (RTUs) giriş və çıxışda baş verən həyacan signallarının, vəziyyətinin və ölçünün aparılmasına imkan verəcəkdir. İstilik elektrik stansiyalarının hər bir enerji blokunda yanacaq sayğaclarının quraşdırılması səmərəli ötürmə üçün nəzərdə tutulur.

Component B: Ötürücü Sistemin Bərpası (Dəyəri: Proporsional olaraq, A və B Komponentləri üçün 50.6 milyon ABŞ dolları)

İkinci komponent yüksək gərginlikli ötürücü xətlərin və seçilmiş yüksək gərginlikli yarımstansiyaların bərpası üçün prioritet investisiyaları əhatə edir. Investisiyalar sistemin etibarlığının gücləndirilməsinə və sistemin qiymətli aktivlərinin dağılmalardan mühafizə olunmasına kömək etmək üçün nəzərdə tutulmuşdur. Sub-layihələr prioritetliklərinə və iqtisadi rentabelliklərinə görə seçilmişlər, bura; dörd yarımstansiyalarda olan transformatorların güclərinin artırılması, 12 ötürücü xəttin seqmentlərinin bərpası və əlavə dörd yarımstansiyada ucuz bərpa işlərinin görülməsi daxil edilmişdir. Sub-layihələrin detalları Əlavə 4-də verilir. Sub-layihələrin bəziləri əlavə tədqiq edilmə məqsədi ilə layihənin yerinə yetirilmə zamanı dəyişdirilə və ətraf mühit üzrə sistemdə (mövcud avadanlıqların xarab olması və ya sistemdə zəif yerlərin əmələ gəlməsi səbəbindən) dəyişikliklər aparıla bilər.

Component C: İdarəetməyə Yardım (3.6 milyon ABŞ dolları)

Üçüncü komponent Azərenerjinin idarəetmə sisteminin yüksəldilməsi və onu restrukturizə olunmuş gələcək enerji sektoruna hazırlamaq üçün texniki yardımın göstərilməsini özündə əks etdirir. TY-a daxildir (1) şirkətə Beynəlxalq Maliyyə Hesabatı Standartlarına (IFRS) keçməyə yardım; (2) inteqrə edilmiş məlumat idarəetmə sisteminin hazırlanması; (3) Azərenerjinin aktivlərinin yenidən qiymətləndirilməsi; (4) layihə və şirkət üzrə auditin keçirilməsi; (5) müasir Şəbəkə Nizamnaməsinin hazırlanması; (6) ötürmənin qiymətləndirilməsi (müxtəlif ötürmə tarifi

¹ İnformasiya Araşdırma və Nəzarət Sisteminin (SCADA) və Avtomatik İdarəetmə Sisteminin (EMS)

üçün əsas kimi); və (7) ötürücü sistemin dayanıqlığının tədqiqatı. Bu komponent həmçinin, layihənin Azərenerji tərəfindən effektiv yerinə yetirilməsinə köməkdarlıq kimi Texniki Yardımın (TA) göstərilməsini özündə əks etdirir. Elektrik enerjisi üçün dispetçer sisteminin quraşdırılması mürəkkəb məsələdir və bu Azərenerjinin əməliyyatlarında əhəmiyyətli dəyişikliklərin yaranmasına səbəb olacaqdır. Sub-komponentlərə daxildir: (8) dispetçer sistemi üçün satınalma işlərinin dəstəklənməsi (layihə hazırlıqları dövründən başlayaraq); (9) layihənin idarə olunması və texniki dəstək; və (10) dispetçer sistemi üzrə təlim.

Component D: Layihənin Yerinə Yetirilməsi (0.8 milyon ABŞ dolları)

Dördüncü komponent Layihənin İcra Qrupunun (PIU) Əlavə Əməliyyat Xərclərinin (IOC) maliyyələşdirilməsi əks olunur. Bu, Azərenerji təşkilatının bir hissəsi kimi LİQ-ə (PIU) verilən və həcminə görə cüzi olan sub-layihədir. Bu sub-layihə ilə verilən maliyyə vəsaitləri tərcümə işlərinin görülməsi, əlavə ofis avadanlığının alınması, layihə ilə əlaqədar beynəlxalq səfərlərin, və əlavə ofis xərcləri üçün saxlanılmalıdır.

Layihənin ümumi dəyəri gözlənilməz xərclər və haqlar daxil olmaqla 55.4 milyon ABŞ dollarıdır. BYİB tərəfindən verilən kreditin məbləği 48 milyon ABŞ dolları, yerdə qalan 7.4 milyon ABŞ dolları yerli maliyyələşdirmənin üzərinə düşür. (bax Əlavə 5)

4. Layihənin hazırlanması zamanı öyrənilmiş və əks olunmuş dərslər

Bank layihənin yerinə yetirilməsində əhəmiyyətli təcrübə toplamışdır və Azərbaycanda və regionda yerləşən ölkələrin enerji sektorunda olan problemləri çox yaxşı anlayır. Ən vacib dərslər odur ki, prioritet problemlər özündə iki qarşılıqlı əlaqəli problemləri əks etdirir: sektorun idarəedilməsi və elektrik enerji şirkətinin maliyyə vəziyyəti. Bunlar əlbətdə ki, hüquqi, tənzimləmə, struktur, iqtisadi, maliyyə və texniki amillər ilə əlaqəli mürəkkəb problemlərdir. Azərbaycan ancaq yaxın zamanlarda enerji sektorda islahatlara həyata keçirməyə, struktur dəyişikliklərinə, hüquqi və tənzimləmə islahatlarına, və BİA tənzimləmə əməliyyatları ilə dəstəklənən (bu yaxınlıqda YASK-I(2005)) kommunal şirkətlərin maliyyə vəziyyətinin sağlamlaşdırılması istiqamətində addımlar atmağa başlamışdır. Təklif olunan layihə dispetçer sisteminin təkmilləşdirilməsinə və ötürücü sistemin bərpasına yönəldilən investisiyalarla bu addımların gücləndirilməsinə kömək etmiş olardı. Siyasətin və investisiya dəstəklənməsinin bu cür birləşik planlaşdırılması sektorun maliyyə vəziyyətinə və sektor islahatlarının əsaslandırılmasına onların birgə effektinin maksimallaşdırmaq üçün edilmişdir.

Belə oxşar layihələrdə satınalmalar üzrə işlərin hazırlanması və idarə olunması, təkliflərin qiymətləndirilməsi, layihənin idarəedilməsi və yerinə yetirilmənin əlaqələndirilməsi borcalanlar üçün çətinliklər yaradır. Azərenerji və onun LİQ-i (PIU) üçün bu səbəbləri minimumlaşdırmaq üçün satınalmalar strategiyası iki mərhələli təklif etmə prosesinə və inteqrə edilmiş dispetçer sistemi üçün “açar-təhvil” müqaviləsinə əsaslanır. Beynəlxalq məsləhətçilər tərəfindən texniki yardıma həmçinin, layihənin yerinə yetirilməsi dövründə yeni dispetçer sistemi üçün əməliyyat həcmininin təyin olunmasında və layihənin müvafiqliyinin əsaslandırılmasının gücləndirilməsində LİQ-ə (PIU) köməkdarlıq daxil edilmişdir.

Son olaraq, sektorda çalışan şirkətlərin maliyyə vəziyyətləri yaxşılaşana qədər (hansı ki, öz növbəsində yığılma, tariflərin və sosial müdafiə tədbirlərinin artırılmasını tələb edəcəkdir) benefisiar təşkilatlar tərəfindən layihələrin maliyyələşdirilməsi məhdud olacaqdır. Anlayaraq ki, maliyyə vəziyyətinin yaxşılaşdırılması ancaq islahat proqramının yerinə yetirilməsi ilə paralel hazırlanmalıdır, yerinə yetirilmə üzrə geriləmələr riskini azaltmaq üçün yerli maliyyələşdirmənin səviyyəsi aşağı saxlanılmışdır.

5. Nəzərdən keçirilmiş alternativ variantlar və onların qəbul edilməməsi səbəbləri

Burada dispetçer və YG ötürmə üçün yüksək prioritetli investisiyaların təklif olunan maliyyələşdirməsi sektor inkişafının bu mərhələsində daha yaxşı yanaşmanı göstərməsi barədə anlayış verilir. Əsas nəzərdən keçirilmiş variantlar və onların qəbul edilməməsi səbəbləri aşağıdakı kimidir:

- *Artan güclər dönməndə maliyyə investisiyaları:* Azərbaycanda hazırda elektrik enerjisi üzrə defisit mövcuddur və bunun müqabilində Rusiyadan enerji idxal edir. Uzun dövrdə iqtisadiyyatın yerli təchizat qiymətindən artıq idxal qiymətlərini daşıyacağı gözlənilir. Enerji Sektorun İnkişafı üzrə Dövlət Proqramının ilkin variantında istehsal və ötürmənin gücünü artıracaq bir sıra investisiyaları özündə əks etdirir. Eyni zamanda aydındır ki, ötürücü sistemdə mövcud olan komponentlərin məhdudluğu, sistemin fəaliyyəti barədə adekvat məlumatın olmaması, mövcud avadanlıqların güclərinin maksimallaşdıraraq sistemdə balansın əldə olunması kimi mexanizmlərin azlığı səbəbindən hazırkı sistemdən optimal istifadə olunmur. Nəticədə belə qərara alındı ki, əlavə güclərə (hansı ki, layihələşdirilən yüklənmə artımını təmin etmək üçün şübhəsiz lazım olacaqdır) investisiyalar yatırılmamışdan əvvəl, birinci növbədə mövcud ötürücü sistemindən və elektrik stansiyalarından istifadənin səviyyəsi yaxşılaşdırılmalıdır.
- *Generasiya güclərinin bərpasında maliyyə investisiyaları:* Bu sahədə ən çox böhranlı və daha çox səmərə verə bilən generasiya güclərinin bərpasını maliyyələşdirməyi təmin edən AYİB layihəsi hazırlanma prosesindədir. BYİB tərəfindən əlavə maliyyələşdirmə əməliyyatlarının həyata keçirilməsi artıq enerjinin yaranmasına, bu da tariflərin aşağı olan və ödəmələr ilə xarakterizə olunan bazarda problemlərin yaranmasına səbəb olacaqdır. Bu da ön plana tam dəyər/tam ödəmə üzrə real tələbat məsələsi çıxır. Ötürücü sistemə investisiyaların bu məsələyə daha az təsiri vardır
- *Elektrik enerjisindən effektiv istifadə olunmasına/enerji ilə yüklənmənin idarə olunmasına maliyyə investisiyaları:* Enerji sistemdə güc defisiti yarandıqda birinci növbədə Tələbatın idarə olunmasına nəzər səqalınır. Lakin, bir çox məqsədlər üçün istifadə olunan qaz yanacağının defisiti bir çox hallarda elektrik enerjisindən həm maliyyə, həm də iqtisadi cəhətdən, qeyri-effektiv istifadə olunmasına gətirib çıxarır. Bu özünü evlərin qızdırılması və mətbəx işərinin görülməsi zamanı qaz əvəzinə elektrik enerjisindən istifadə olunmasında göstərir. Qaz təchizat sistemindən istifadənin yaxşılaşdırılması və onun maliyyə dayanıqlığını yüksəldilməsi üçün struktur dəyişikliyinə həyata keçirilməsi enerji sistemə olan təzyiqli azaltmağa kömək edəcəkdir. Bundan başqa, təklif olunan layihə təchizat səviyyəsində enerji ilə yüklənmənin idarə olunmasına, Milli Dispetçer Mərkəzinə sistemdə yaranan ifrat yüklənməni tez təyin etməyə və nəzarətsiz məcburi dayanmalar

üzrə riski minimumlaşdırmağa imkan verəcəkdir. Elektrik enerjisindən effektiv istifadə olunmasının vacib şərtləri etibarlı və effektiv dispetçer, ötürücü və ölçü sistemlərinin olmasıdır.

- *Ötürücü sistemin bərpasının dispetçer sisteminə (SCADA/EMS/tele-rabitə/ölçü) nəzərən daha çox maliyyələşdirilməsi:* KfW təfindən maliyyələşdirilən layihələr BYİB-nin bu layihəsi ilə birgə ötürücü sistemin əhəmiyyətli bərpasına imkan yaratmışdır və ya imkan yaradacaqdır. SCADA sistemi operatora sistemdə və enerji bloklarında baş verən problemi tez bir zamanda aşkarlamağa, bununla da, gözlənilməz açılmanın və onunla bərabər ardıcıl açılmaların arzuolunmaz təsirini aradan qaldırmağa, açılma vaxtının azaltmağa, və ümumilikdə sistemin təhlükəsiz fəaliyyətinə zəmanət verməyə imkan verəcəkdir. SCADA üzrə investisiyanın iqtisadi gəlir norması konservativ nəzərə əsasən, yüksəkdir və Hökumət, SCADA sisteminə investisiyaya böyük üstünlük vermişdir.

C. YERİNƏ YETİRİLMƏ

1. İnstitusional və yerinə yetirilmə tədbirləri

1.1 İnstitusional Cavabdehlik və Bacarıq

İcraçı Agentliklər: Layihənin idarə olunmasına və yerinə yetirilməsinə cavabdeh olan icraçı agentlik-Borcalan kimi Azərenerji ATSC (açıq tipli səhmdar cəmiyyəti) ola bilər. Azərenerji yüksək gərginlikli ötürücü sistemdə idarəetməni və nəzarəti və istilik və su elektrik stansiyalarına cavabdeh olan və dövlət məxsus enerji şirkətidir.

Hökumət tərəfdən icraçı agentlik Maliyyə Nazirliyi olacaqdır. Nazirlik, və bəzi hallarda Borcalan, digər Hökumət agentlikləri ilə, xüsusən də İqtisadi İnkişaf Nazirliyi ilə (IIN), Sənaye və Energetika Nazirliyi ilə (SEN), Nazirlər Kabineti ilə (NK), və Tarif Şurası ilə, və əgər ehtiyac yaranarsa, ikitərəfli və çoxtərəfli maliyyə agentlikləri ilə kordinasiyanı təmin edə bilərdi. Maliyyə Nazirliyi bəzi Hökumət kordinasiyası üzrə işləri və nəzarət üzrə məsuliyyəti belə məsələlərdə səriştəsi olan digər nazirliklərin (IIN və/və ya SEN), üzərinə qoya bilər.

Azərenerji, təklif olunan layihə üçün Baş mühəndisə (Prezidentin Birinci Müavini) hesabat verən, texniki, maliyyə, ətraf mühit, və satınalmalar üzrə mütəxəssisləri özündə cəmləyən və Bankın gündəlik məsələlərlə əlaqədar həmkarı kimi fəaliyyət göstərən Layihənin İcra Qrupunu yaratmışdır. Layihənin hazırlanmasına LİQ (PIU) birbaşa cavabdehdir. Kredit təsdiq olunub və qüvvəyə minən kimi, LİQ (PIU) layihənin yerinə yetirilməsinə cavabdehlik daşımağa başlayacaqdır, bura satınalmalar, müqaviləyə nəzarət və onun yerinə yetirilməsinin tənzimlənməsi işləri, və layihənin maliyyəsinin idarəedilməsi, bura layihə üzrə mühasibat uçotu, maliyyə hesabatının təqdimatı, kreditin ödənilməsi, və daxili auditin keçirilməsi daxildir.

Layihənin Yerinə Yetirilmə Bacarığı: Azərenerji AYİB (EBRD) tərəfindən iki əsas su elektrik stansiyalarının bərpası layihələrində, KfW tərəfindən yarımstansiyanın bərpası layihəsində və YBƏB (JBIC) tərəfindən buxar qaz tipli istilik elektrik stansiyasının yenidən qurulması işlərində benefisiar və icraçı agentlik kimi fəaliyyət göstərmişdir. Azərenerjinin və LİQ-in (PIU) layihənin yerinə yetirilməsi məsuliyyəti kafi dəyərləndirilir, belə ki, onların əvvəlki layihələrin yerinə

yetirilməsində təcrübəsi və müvafiq biliyə malik texniki heyəti mövcuddur. Bunnunla bərabər, quraşdırılacaq dispetçer sisteminin texniki cəhətdən mürəkkəb olması və onun istifadə olunmasının çətinliyi və bura yeni texnologiyaların cəlb olunması, layihənin yerinə yetirilməsinin bütün dövründə layihənin idarəedilməsində əlavə mütəxəssis köməyinin göstərilməsi üçün maliyyələşdirməni daxil edəcəkdir.

1.2 Yerinə Yetirilmə üzrə Tədbirləri

Kreditləşdirmə və Kreditin Ötürülməsi: 48 milyon ABŞ dolları məbləğinə ekvivalent kredit Azərbaycan Hökumətinin zəmanəti ilə BYİB (İBRD) şərtləri altında Azərenerjiyə təqdim olunacaqdır. Kredit ABŞ dollarında əks olunmaqla, Vahid Valyutalı və Fərqi Sabit formalı olacaqdır. Kredit 20 illik müddətə, onun 8 ili güzəşt müddəti olmaqla veriləcəkdir. Layihənin 5 il ərzində yerinə yetirilməsi gözlənilir.

Ayrımlar: (Əlavə 7) BYİB Kreditindən ödəmələr Azərbaycan üçün Ölkə üzrə Maliyyələşdirmə Parametrləri üzrə, mallar, işlər, texniki yardım və cari işlər üçün qəbul ediləbilən xərclərin maliyyələşdirilməsi üçün həyata keçiriləcəkdir. Layihənin vaxtında icra olunmasını yüngülləşdirmək üçün Bankın şərtlərinə uyğun olaraq, borcalan, ABŞ dollarında Xüsusi Hesab açmalıdır, onu idarəetməli və saxlamalıdır. Xüsusi Hesab Banka tələblərinə cavab verən kommersiya bankında açılmalıdır. Xüsusi hesabın doldurulmasına sifariş hər rübdən gec olmamağa əsaslanacaqdır. Xüsusi Hesabda ilkin olaraq 1,000,000 ABŞ dolları yerləşdiriləcəkdir. Kredit altında ümumi ödəmələr 5,000,000 ABŞ dollarına çatarsa, Xüsusi Hesabda yerləşdirilən vəsait 2,000,000 ABŞ dollarına çatacaqdır. Ayrımlar Xüsusi Hesabın 20%-indən artıq olarsa, ödənişlər birbaşa Kredit Hesabından yerinə yetiriləcəkdir.

Maliyyə İdarəedilməsi və Hesabat vermə Tədbirləri: (Əlavə 7) LİQ (PIU) Bank tərəfindən razılaşdırılmış formatda rüblük Maliyyə üzrə Monitoring Hesabatını hazırlayacaq və Banka təqdim edəcəkdir. LİQ həmçinin, Layihə üzrə Maliyyə Hesabatlarının illik auditinin keçirilməsi ilə bərabər, Bankın tələblərinə cavab verən müstəqil auditorlar tərəfindən şirkətin maliyyə hesabatlarının auditinin keçirilməsi işlərinin kordinasiyasına da cavabdehdir. Həm Layihənin, həm də şirkətin auditini borc hesabına keçiriləcək.

2. Nəticələrin monitorinqi və qiymətləndirilməsi

LİQ (PIU) Azərenerjinin və müvafiq Hökumət nazirliklərinin köməkliyi ilə B2 Bölməsində və Əlavə 3-də göstərilmiş razılaşdırılmış göstəricilərə əsaslanaraq, gedişata nəzarət edəcəkdir. LİQ (PIU) rüblük olmaqla, hər axıncı rübün qurtarmasından 45 gün sonra Bankın Maliyyənin İdarəolunması Hesabatı formatında (FMR) layihənin yerinə yetirilməsinin gedişatı üzrə cəmləşdirilmiş hesabatlar təqdim etməlidir. BYİB-nin icmalı və şərhini üçün qarşidan gələn il üçün illik ilkin fəaliyyət proqramları Dekabr hesabatları ilə daxil ediləcəkdir. Azərbaycan Hökuməti və BYİB (İBRD) illik nəzarət missiyaları zamanı birgə icmalı həyata keçirəcəklər. LİQ (PIU) layihənin qüvvəyə minməsindən sonrakı 27 ay ərzində təfəssilatlı hesabat təqdim etməlidir ki, bu da sonrakı 3 aydan gec olmamaq şərti ilə layihənin hazırlanacaq təhlili üçün əsas olacaqdır. Rüblük hesabatlar əsasında əhatə olunan mövzulara əlavə olaraq, müvəqqəti təhlil özündə layihənin iqtisadi cəhətdən həyat qabiliyyətli olmasını əks etdirir ki, bu da hazırkı vaxtda əldə olunan faktiki gəlirlər və xərclər ilə birgə istənilən dəqiqləşdirilmiş qiymətləndirmələrə əsaslanır. Müvəqqəti təhlilin nəticələrinə əsaslanaraq, layihənin effektiv sona çatdırılması üçün tədbirlər

görüləcəkdir. LİQ (PIU) həmçinin, BYİB tərəfindən Kreditin son tarixindən sonrakı altı ay ərzində layihə üzrə İcranı Son Hesabatı (ICR) hazırlaya bilmək üçün Borcalana İcranın Son Hesabatının (ICR) hazırlanmasında kömək etməlidir. İSH-ə (ICR) layihə üzrə xərclərin və gəlirlərin qiymətləndirilməsi, layihənin yerinə yetirilməsi və cəlb olunan tərəflərin fəaliyyəti daxil ola bilər.

3. Davamlılıq.

Layihə Hökumət tərəfindən güclü dəstəklənir. Sector üzrə investisiyaların maliyyələşdirilməsi üçün yüksək gərginlikli ötürücü sistemin etibarlılığının və effektivliyinin artırılmasına yardım Hökumət tərəfindən olunan xahişin əsas komponenti olmuşdur. Layihə daha dəqiq olaraq razılaşdırılmış 2003-2005 maliyyə ilində Ölkəyə Yardım Strategiyasında (FY03-05 CAS) göstərilmişdir və Hökumət layihənin hazırlanması üçün PHRD Qrantını götürmüşdür.

Uzun zaman dönməndə layihənin davamlılığı aşağıdakılardan asılı olacaqdır:

- İstehsal xərclərini ödəyəcək səviyyədə Azərenerji tariflərinin artmasından;
- Enerji paylayıcı şirkətlərin maliyyə vəziyyətlərindən və onların Azərenerjiyə aldıkları enerjiyə görə tam ödənişləri yerinə yetirməkdən; və
- Azərenerji dispetçerləri üçün mərkəzinə; daimi SCADA kompyuter sistemi dəstəyindən, texniki xidmət heyətindən, potensialın gücləndirilməsindən və ötürücü sistem üçün mənbələrdən.

YASK-I çərçivəsi daxilində kredit əməliyyatlarına əlavə olunan İSM məktubunda Hökumət, 2010-cu ildən gec olmayaraq, elektrik enerjisinin istahsalına çəkilən xərcləri ödəyən tariflərin tətbiq olunmasına gətirib çıxaracaq, orta tarif siyasətinin həyata keçirilməsi ilə əlaqədar öhdəlik götürmüşdür. Bununla belə, sosial müdafiə proqramlarının və mexanizmlərinin (BİA kredit vasitəsi ilə dəstəklənən) yerinə yetirilməsi və pensiyaların, minimum əmək haqlarının və s. artırılması ilə əlaqədar gedişətdən asılı olaraq, istahsal xərclərinin ödənilməsi yolu təfəssilatı ilə hələ ki, planlaşdırılmamışdır. Bu layihə üçün hüquqi razılaşmalarda Hökumət qeyd edilən tarif siyasətinin əhatə çərçivəsi ilə razılaşır və Azərenerjiyə, paylayıcı şirkətlər tərəfindən müqavilələr üzrə ödəmələrin tam yerinə yetirilməməsi səbəbindən və/və ya bu şərtlər üçün vaxt tələb edilməyə qədər qeyri-adekvat tariflər hesabına nəqd vəsaitlərdə yaranan defisiti örtmək üçün maliyyə yardımlarının verilməsini davam etdirəcəkdir.

Paylayıcı şirkətlərin maliyyə vəziyyətləri bütü enerji sektor üçün və xüsusən də Azərenerji üçün çox əhəmiyyətlidir, belə ki, Azərenerjinin bütün gəlirləri tamamilə paylayıcı şirkətlərin edəcəkləri ödənişlərdən asılıdır. Paylayıcı şirkətlər özəl idarəçiliyə verilmiş və onların Azərenerjiyə edəcəkləri ödənişlər müqavilələr əsasında təyin edilmişdir. 2010-cu ilə qədər və ya o il üzrə, bütün paylayıcı şirkətlər Azərenerjidən aldıkları elektrik enerjisinə görə ödənişləri tam və vaxtında yerinə yetirməyə müqavilələr üzrə məcburdurlar. Potensialın gücləndirilməsi üçün texniki yardım Layihənin həcminə daxil edilmişdir.

4. Böhranlı risklər və mümkün ola bilən mübahisəli aspektlər

Böhranlı Risklər

Risk	Riskin Dərəcəsi	Riskin Təsirinin Azaldılması Tədbiri
<p>Səbəbdən Məqsədə doğru Müstəqil tənzimləmə üçün təşkilatların və qaydaların tətbiq edilməməsi səbəbindən sektorda olan müəssisələr üçün adekvat olmayan tariflər.</p>	S	Hökumətə müstəqil tənzimləyici agentliyin yaradılmasında və yerinə yetirilməsində donorların (USAID, PPIAF) maliyyələşdirdiyi texniki yardımın göstərilməsi.
<p>İstehsal xərclərinin ödənilməsinə təmin edəcək tariflərin prinsipləri barədə Hökumətin öhdəliyinin itirilməsi.</p>	S	Donorlar TY (TA) maliyyələşdirdikləri kimi Hökumət də müvafiq kreditləşdirməni həyata keçirir. Hökumət Zəmanət Sazişində 2010-cu ilə qədər istehsala çəkilən xərcləri ödəməyə imkan verən tariflərin tətbiq edilməsi və Azərenerjini qeyri-kompensasiyalı tariflərdən sığortalamaq üçün maliyyə yardımları ilə təmin edilməsi üzrə öhdəlik götürmüşdür.
<p>Sosial müdafiə sisteminin vaxtında təmin olunmaması.</p>	M	Pensiyalar və Sosial Yardım Layihəsi (BİA, 2004). Enerji qiymətlərində gələcək artımların təsiri pensiyaların və minimum əmək haqlarının son zamanda əhəmiyyətli artırılması ilə xeyli azaldılmışdır.
<p>Paylayıcı şirkətlər Azərenerjidən aldıkları enerji ödənişləri ilə əlaqədar müqavilə öhdəlikləri tam yerinə yetirmirlər.</p>	S	Hökumətin, əgər özəl şirkətlər öz müqavilə üzrə öhdəliklərinin yerinə yetirə bilmədikləri halda belə, Azərenerjini lazımi qədər maliyyə yardımları ilə təmin etmək barədə öhdəliyi mövcuddur.
<p>Komponentlərdən Səbəblərə doğru Sayğac oxunuşu və dispetçer qaydaları və prosedurlarına riayət olunmur.</p>	M	Paylayıcı sistemin özəlləşdirilməsi və tənzimlənmənin gücləndirilməsi.
<p>Qeyri-adekvat xidmət sistemi.</p>	S	Tariflərin artırılması və ödənişlər tam yığılması yolu ilə Azərenerjinin maliyyə vəziyyətinin gücləndirilməsi.
<p>layihənin pis idarə olunması və yerli maliyyələşdirmənin azlığı səbəbindən nın Layihənin icrasında geriləmələr.</p>	S	Yerli maliyyələşdirmənin tələbləri minimumlaşdırılmışdır. İcra dövründə layihənin idarəedilməsi üçün LİQ (PIU) TY (TA) vasitəsilə kömək edəcəkdir.
<p>Risk Dərəcəsinin Qiyməti</p>	S	
<p>Risk Dərəcəsi - H (Yüksək Risk), S (Əhəmiyyətli Risk), M (Orta Risk), N(Əhəmiyyətsiz və ya Aşağı Risk)</p>		

Mümkün Ola Bilən Mübahisəli Aspektlər:

Mövcud deyil.

5. Kreditin şərtləri və razılaşmalar

Hökumətdən, istehsal xərclərinin tam ödənilməsi səviyyəsini təmin edən tariflərin əldə olunmasına və paylayıcı şirkətlərin Azərenerjidən aldıkları enerjinin dəyərinə görə ödənişləri 100% vaxtılı-vaxtında yerinə yetirilməsi tələb olunana qədər, Azərenerjinin, onun illik gəlirləri ilə (ödəməmələrin nettosu) illik nəqd vəsait axımı tələbləri (bura əməliyyat və texniki xidmət xərcləri, kapital qoyuluşlarının özünümaliyyələşdirməsi, borc üzrə xidmətlər daxildir) arasında yaranan əhəmiyyətli fərqləri aradan qaldırmaq üçün illik maliyyə yardımları ilə təmin edilməsini büdcədə nəzərdə tutacaq və onu maliyyə yardımları ilə təmin edəcəkdir. Maliyyə yardımlarının ayrılması dövrünün 2010-cu ilə qədər uzanacağı gözlənilir. Hökumət həmçinin, 2005-ci ilin may ayının 31-ə qədər Bankın tələblərinə cavab verən və Borcalana 2010-cu ilin dekabr ayının 31-dən gec olmayaraq, həyata keçirdiyi əməliyyatlar zamanı çəkdiyi istehsal xərclərini tam ödəyən tariflərin əldə olunmasına imkan verən orta müddətli tarif siyasətinin inkişaf etdirilməsi və sonradan təyin edilmiş vaxt qrafikinə uyğun olaraq icra edilməsi ilə razılaşmışdır.

Əlavə olaraq, Azərenerji özünün illik təmiz gəlirləri ilə gələcəkdə olacaq borc xidməti üzrə maksimum tələb arasında nisbətən heç olmazsa 1.5:1 olana qədər, özünün likvidlik əmsalını 1.2:1-ə nisbətində saxlayacaqdır. Azərenerji ABŞ dolları ilə yerli Layihə Hesabı açacaq və gözlənilən birgə maliyyələşdirmə üzrə yerli tələbləri keçməmək şərti ilə ən azı sonrakı 3 ay ərzində bu hesabda balansı təmin edəcəkdir.

D. QIYMƏTLƏNDİRMƏNİN XÜLASƏSİ

1. İqtisadi və maliyyə analizləri

1.1 Gəlir-Xərc Analizi: Təklif olunan layihədən əldə olunacaq potensial gəlirlərə daxildir (i) xətlərdə ötürmə zamanı yaranan itkilərin azaldılması və elektrik stansiyalarının iqtisadi cəhətdən daha səmərəli istifadəsi yolu ilə elektirik enerjisinin dəyərinin azaldılması; (ii) sənaye, kommersiya və əhaliyə verilən təchizatın etibarlılığının artması; (iii) məcburi açılımların və əlavə zədələnmələrin qarşısını almaq yolu ilə texniki xidmət və təmir xərclərinin azaldılması; (iv) sistemin vəziyyətinin və onun tələblərinin daha yaxşı bilmək yolu ilə regional enerji ticarətində iştirakda böyük imkanların yaranması; və (v) mövcud resurslardan daha səmərəli istifadə etmək yolu ilə istahsal və ötürmə sisteminə yatırılacaq yeni potensial investisiyalardan qaçılması.

Azərbaycanda layihənin ilkin benefisiarları başqa cür tələb olunacaq qiymətdən aşağı qiymətdə olan etibarlı elektrik enerjisindən zövq alan elektrik enerjisi istehlakçıları olacaqlar. Layihənin maliyyə təsirini enerji sektor üçün tələb olunan dövlət dəstəyinin (elektrik stansiyasının yanacaq təchizatı ilə əlaqədar olaraq, maliyyələşdirmənin şərtlərində) orta müddətdə azalması, büdcə təşkilatları tərəfindən istifadə edilən elektrik enerjisi xərclərinin azalması, və tarif artımlarına tələbatın azalması nəticəsində gəliri aşağı olan əhali qruplarına verilən subsidiyaların səviyyəsinin azalması təşkil edəcəkdir.

İqtisadi analiz xətt itkilərinin azalması ilə əlaqədar xeyirlərin yaranması, elektrik stansiyalarının daha səmərəli istifadə olunması, əməliyyat və texniki-xidmət xərcləri sistemində təmiz qənaətin yaranması, mövcud resursların daha effektiv istifadəsi nəticəsində investisiyalardan qaçılması kimi məsələlərin nəzərdən keçirilməsini əhatə edir. Təchizatın etibarlılığının artırılması və enerji üzrə regional ticarətin daha vacib olduğu bir halda, bu təsirlərin layihənin nəzərətindən kənar faktorlara əsaslanan dərəcəsinə təyin etmək çox çətindir. Bununla belə, konservativ yanaşma yarımstansiyaların və xətlərin təkmilləşdirilməsi nəticəsində açılımların tezliyinin və sürəkliliyinin azalmasından, yarımstansiyalarda dar ensiz yerlərin aradan qaldırılmasından və açılma yarandığı halda tez bir zamanda sistemin fəaliyyətinin bərpa olunması ilə əlaqədar SCADA/EMS komponentindən əldə olunacaq səmərə üzrə hesablamalara əsaslanaraq tərtib olunmuşdur.

Əlavə 9-da əks olunmuş təxminlərə əsaslanaraq, SCADA/EMS komponentinin İqtisadi Özüni Odəmə Norması İDRN (EIRR) 35.8 faiz təyin olunmuşdur. 10 faiz diskont dərəcə ilə Xalis Cari Dəyər (NPV) 73.2 milyon ABŞ dolları olacaqdır. B Komponenti altında təklif edilmiş ötürücü xətt subkomponentləri üçün İDRN-i (EIRR) yüksəkdir, belə ki, o, 53 faizdən 441 faiz arasında dəyişir. 12 sublayihə üçün tam İDRN (EIRR) norması 76 faizdir. İmişli, Gəncə və Qala yarımstansiyalarda transformatorların əvəzlənməsi üzrə İDRN norması həmçinin yüksəkdir (müvafiq olaraq, 46 faiz, 64 faiz və 59 faiz), belə ki, bu yarımstansiyalar pik yüklənmələr zamanı ya nominal gücü ilə və ya da ona yaxın gücdə işləyirlər. Müşviq yarımstansiyasında transformatorların əvəzlənməsi orada məhdud güc ötürmə imkanına malik olma səbəbilə əsaslandırılı bilməz. Müşviq yarımstansiyası Bakının münasib yerində yerləşir, və buradan prezident aparatı və bir sıra digər dövlət əhəmiyyətli idarələr elektrik enerjisi ilə təmin edilir və ancaq bu təchizatın etibarlığı və təhlükəsizliyi baxımından onun bərpası əsaslandırılı bilər. Əlavə olaraq, Azərenerji digər yarımstansiyalarda olan və öz istifadə müddətlərinə yaxın olan və ya başa çatdıran transformatorları dəyişdirmək üçün mövcud olan transformatorların istifadə olunmasını planlaşdırır. Əlavə üç yarımstansiyalarda bütövlüyü təmin etmək üçün paylayıcı quruluş və batareyaların əvəzlənməsini “lazımdır-olunmalıdır” layihəsi kimi nəzərdə tutur. Ümumilikdə, B Komponentinin İDRN norması 48 faiz həcmində və XCD 83.8 milyon ABŞ dollarında qiymətləndirilmişdir. Ümumi layihə üçün İDRN norması 38 faiz həcmdə və XCD 143.7 milyon ABŞ dolları məbləğində qiymətləndirilmişdir.

Layihənin Maliyyə Daxili Rentabellik Norması (FIRR) gəlirlər və xərclər üçün maliyyə qiymətlərindən istifadə edilərək təyin edilmişdir. Hazırkı tariflər və yanacaq qiymətləri ilə, SCADA/EMS üçün MDRN norması (FIRR) 30.2 faiz və XCD (NPV) isə 53.7 milyon ABŞ dolları təyin edilmişdir. Ötürücü sistemin bərpasına təklif olunmuş investisiyalarda Azərenerji üçün MDRN norması (FIRR) Hökumətin hazırkı tarif siyasəti səbəbindən az cəlbedicidir. Təchizat üzrə dəyişən xərclərin (əsasən yanacaq xərcləri) tarif qiymətlərin səviyyəsinə çox yaxın olduğu bir vaxtda və hazırkı tarif səviyyəsində əlavə yüklərə xidmət imkanı (açılımların azaldılması və güc məhdudiyətlərinin aradan qaldırılması yolu ilə) şirkətin gəlirliliyinə göstərəcəyi effekt azdır. Həzırkı zamanda bərpa işlərinin yerinə yetirilməsindən əldə olunacaq əsas maliyyə səmərəsi gələcəkdə, avadanlıqların daha işləmək imkanları olmadıqda bərabər və ya potensial böyük investisiyalardan qaçmaq imkanlarının əldə olunmasıdır. Bununla belə, tariflərin çəkilən istehsal xərclərini ödənilməsi səviyyəsinə çatması, açılımların azalması və bununla əlaqədar elektrik enerjisi satışının yüksəlməsindən əldə olunacaq maliyyə gəlirləri

təchizatın tam və dəyişən xərcləri arasında fərqlərə bərabər olacaqdır. Təxmin edilsə ki, tariflər 2008-ci ildə çəkilən istehsal xərclərini tam ödəmə səviyyəsinə çatacaqdır, və həmçinin təxmin edilsə ki, layihənin olmadığı şəraitdə, eyni dəyərli avadanlıqlar 5 il ərzində bərpa olunmalıdır/dəyişdirilməlidir, onda, ötürücü sistemin bərpası komponentinin MDRN norması 9.1 faiz olacaqdır. Əgər tariflər 2010-cu ilə qədər çəkilən xərcləri tam ödəmə səviyyəsinə çatmayacaqdırsa, MDRN norması 8.7 faiz təşkil edəcəkdir. Aşağı maliyyə üzrə ödəmə norması problem kimi nəzərdən keçirilməməlidir (aşağı tariflərdən savayı), belə ki, yüksək İDRN norması açılma təhlükələrindən qaçmaq üçün istehlakçıların işlətdikləri elektrik enerjisində görə ödəmələri yerinə yetirməyə arzuladığı əks etdirir. Maliyyə və iqtisadi analizlərin detalları və onlar üzrə təxminlər Əlavə 9-da göstərilmişdir.

Layihə həmçinin, parnik qazları üzrə atılmalarının azalması ilə əlaqədar əhəmiyyətli dərəcədə ekoloji mənfəətlər təklif edir. Bu mənfəətlər qismən karbon kreditlərin satılması yolu ilə Borcalana əlavə maliyyə gəlirləri gətirə bilər. Bank hazırda, natural yanacağın istehlakında gözlənilən qənaətlər ilə əlaqədar atılmaların azalmasına əsaslanan Karbon Kreditin Maliyyələşdirilməsi Layihəsini hazırlayır (bax Əlavə 12).

1.2 Azərenerjinin Maliyyə Dayanıqlığı

Tarifin hazırki səviyyələrində Azərenerji hətta enerji haqqlarını tam yığılmasını təmin etsə belə, 2002-ci ildə bu göstərici 30% və 2003-cü ildə isə 36% təşkil etmişdir, özünün istismar xərclərini və nəqd vəsait axımı üzrə tələblərini ödəməyə imkanı olmayacaqdır. Nəticədə, Dövlət, yanacaq və idxal edilən elektrik enerjisi üzrə müvafiq likvidliyi təmin etmiş olur. Şirkətin 2004-cü ilin 9 ayı ərzində əməliyyat itkiləri 421 milyard manat (84 milyon ABD) təkil etmişdir. Eyni zaman ərzində, əməliyyat itkiləri, borc xidməti üzrə öhdəliklər, və az yığım ilə əlaqədar nəqd vəsait problemlərini həll etmək üçün edilən hökumət transfertləri plandan əlavə olaraq 2 trilyon manat (400 milyon ABD – bu 2003-cü ilin son rüblərində və 2004-cü ilin ilk 2 rübündə alınan yanacağın dəyərlərinə ekvivalentdir) təşkil etmişdir. Yığım üzrə göstəricilərin də dörd paylayıcı şirkətlərlə bağlanmış güzəşt müqavilələrinin şərtləri altında artması planlaşdırılmışdır, bununla belə, paylayıcı şirkətlər tərəfindən ediləcək ödənişlərin ancaq 2010-cu ildə 100 faiz olacağı planlaşdırılmışdır. Şirkət 375 milyon ABŞ dolları həcmində xarici borca, 2003-cü ilin axırına olan balans əsasən təxmini 310 milyon ABŞ dolları həcmində borca malikdir. Borcların yarısı BİA -nın (IDA) təklif etdiyi şərtlərlə oxşardır. Yerdə qaçqan kreditlər 11-12 illik bir müddətə verilmişlər və geri qaytarılmalarına 1999 və 2003-cü illərdən başlamağı nəzərdə tutulur. Əlavə olaraq, şirkətin kapital qoyuluşları üzrə 2005-2006-cı illər üzrə proqramına əsasən (təklif olunmuş ötürücü sistemin bərpası layihəsi daxil olmaqla) əlavə olaraq 940 milyon ABD həcmində borcun alınması planlaşdırılır. Yeni borclar daxil olmaqla, 2005-2010-cu illərdə borc xidmətləri üzrə xərclərin 515 milyon ABD olacağı qiymətləndirilmişdir.

Maliyyə dayanıqlığının, borc üzrə xidmətlərin icra edilməsi bacarığının və istahsal xərclərini tam ödəyən tariflərə keçid üzrə layihələndirmələr bir neçə ssenarilərdə hazırlanmış və burada, elektrik enerjisində çəkilən istehsal xərclərini ödəyən tariflərə keçid üçün müxtəlif variantlar nəzərdən keçirilmişdir və hər bir ssenari üzrə tələb olunan hökumət yardımlarının səviyyələri analiz edilmişdir.

Paylayıcı şirkətlər tərəfindən ödənişlərin edilməməsi ilə əlaqədar nəqd vəsait problemləri və borc xidmətləri üzrə yüksək öhdəliklər səbəbindən, Azərenerjinin maliyyə cəhətdən bərpası tarif

artımları ilə bərabər maliyyə yardımlarının edilməsidir. Tarif artımlarını sürətləndirməklə, bunun üç əsas üstünlüyü mövcuddur. Birinci, yüksək tariflər enerji istehlakçılarını enerjiden daha səmərəli istifadə etməyə stimullaşdırardı, bununla da, tələbatın səviyyəsi aşağı enər və beləliklə də, Hökumətin maliyyə yardımlarına ehtiyac da azaldı. İkincisi, tarif artımları hökumətin maliyyə yardımları üçün ehtiyacı azaldı, bu da, aşağı gəlirli əhəlinin dəstəklənməsi üçün əlavə maliyyə vəsaitlərinin sərbəstləşməsinə gətirib çıxardı. Son olaraq, paylayıcı şirkətlərin ödənişlər üzrə geriləmələri olduğu vaxtda istehsal xərclərinin tam ödənilməsi tariflərinə doğru irəliləyiş sosial müdafiə üçün formal mexanizmlərin yaradılmasına qədər gəlirləri aşağı olan əhəlinin faktiki sosial cəhətdən dəstəklənməsini təmin edir.

Tarif artımları və yardımlar üzrə hazırlanmış və təhlili edilmiş müxtəlif variantlardan Hökumətin əsaslı narahatçılıqları ilə elektrik enerjisinin təchizatında daha tez iqtisadi effektivlik əldə edilməsi arasında daha yaxşı balans yaradan variantın seçilməsi 2006-cı ilin yanvar ayının 1-dən etibarən elektrik enerjisinin topdansa satış qiymətlərinin 50% həcmində artmasına (bir kilovatsaat enerji üçün 71 manatdan 106.5 manata qədər) gətirib çıxaracaqdır. Sonrakı müddətdə, illik artım faizlərini tətbiq edərək, 2010-cu ilin axırına qədər istehsal xərclərinin tam ödənilməsinə (bir kilovatsaat enerji üçün 174 manat) nail olmaq olar. Təklif olunmuş variant hökumətin maliyyə yardımlarının həcmində 2005-2010-cu illər ərzində cəmi 6.7 trilyon manat olmasını tələb edir. Analizin və maliyyə vəziyyətinin təfəsilatları Əlavə 9-da göstərilmişdir.

2010 – cu ilə qədər olan dövrdə, yəni, tariflərin artmış olduğu və paylayıcı şirkətlərin müqavilə öhdəliklərinə müvafiq olaraq aldıkları enerji haqları üzrə ödənişləri tam yerinə yetirdikləri zamana qədər Hökumət, Azərenerjiyə maliyyə yardımlarının verilməsini Zəmanət Sazişinin şərtlərinin bir hissəsi kimi davam etdirəcək. Yardımlar şirkətin gəlirləri ilə (ödəmələrin nettosu) onun nəqd vəsait axımı tələbləri (bura əməliyyat və texniki xidmət xərcləri, kapital qoyuluşlarının özünümaliyyələşdirməsi, borc üzrə xidmətlər daxildir) arasında yaranan fərqləri aradan qaldırmaq üçün əhəmiyyətli dərəcədə olacaqdır. Əlavə olaraq, Azərenerji, Bölmə C.5-də qeyd edilmiş likvidlik kofisienti, borc xidməti və ilkin maliyyələşdirmə üzrə razılaşmalara müvafiq olmalıdır.

2. Texniki

Təklif olunmuş layihənin texniki komponentləri beynəlxalq məsləhətçilərin köməyi ilə Azərenerji tərəfindən yerinə yetirilmiş texniki-iqtisadi əsaslandırmanın təfəsilatlı hissəsi kimi təyin edilmiş və qiymətləndirilmişdir. Dispetçer, tele-rabitə və stansiya üzrə uyğunlaşdırılma və ölçü sub komponentləri üçün texniki qərarlar standart konsepsiyalara və bütün dünyada qəbul olunan və tətbiq olunan yoxlanılmış texnologiyalara əsaslanır. Eyni zamanda texniki və güc məhdudiyətlərindən əziyyət çəkən sistem barədə hərtərəfli və vaxtılı-vaxtında məlumatın və nəzarət sisteminin olmasını zəruri etməklə yanaşı, onlar, geniş zavod xarakteristikalarına malik Azərbaycan enerji sisteminin ehtiyaclarına uyğun adaptasiya olunmuşlar.

Ötürücü xətlərin və yarımstansiyaların bərpa oluması üçün texniki qərarlara transformatorlar, açarlar, paylayıcı quruluşlar, batareyalar, və doydurma altı aqreqlər kimi standart sub komponentlər daxildir. Ötürücü xətlərin bərpası işlərinə xarab olmuş naqillərin əvəzlənməsi, dayaqların, dayaq özüllərinin əvəzlənməsi və ya gücləndirilməsi, rasportkaların, izolyatorların və xətt armaturlarının, torpaqlayıcıların və vibrasiya qurğularının quraşdırılması daxildir. Sub

komponentlərin bəziləri layihənin yerinə yetirilmə dövründə əlavə tədqiq edilmə üçün və ətraf mühit sisteminə müvafiq dəyişdirilə bilər. Lakin, təklif olunan sub komponentlər çox vacib komponentlər kimi xarakterizə olunmuşlar, bununla da Azərenerjinin və sektorun təcili tələbləri təmin olunur.

Dispetçer sistemi üzrə layihənin uğurlu idarəedilməsinə, hazırlanmasına, satınalma işlərini yerinə yetirilməsinə və quraşdırılmasına texniki yardım göstərilməsi zəruridir. Bərpa sistemi üçün yardımın dərəcəsi (satınalmalar və ətraf mühit üzrə yardım) çüzdür. Layihə həmçinin, ötürücü sistemin tədqiqini (bura sistemin dayanıqlığının və rele qoyuluşlarının öyrənilməsi daxildir), dispetçer təlimi, müasir Şəbəkə Nizamnaməsinin hazırlanması işlərini maliyyələşdirəcək və maliyyə və digər idarəetmə ilə əlaqədar, Layihənin C və D Komponentlərində təsvir olunan, işlərə yardım göstərəcəkdir.

3. Etibarlılıq

Maliyyənin idarəedilmə imkanlarının ilkin qiymətləndirilməsi (FMCA) layihənin hazırlanması dövründə yerinə yetirilmiş və Qiymətləndirmə zamanı təkmilləşdirilmişdir. Qiymətləndirmə göstərmişdir ki, Azərenerji və LİQ-in (PIU) layihənin maliyyə cəhətdən idarəedilməsi tələblərinə cavab verirlər. LİQ və onun məsləhətçiləri tələb olunan və avtomatik icra edilən Maliyyə üzrə Monitoring Hesabatları (FMRs) daxil olmaqla, Layihənin mühasibat sisteminin məsləhət görülmüş təkmilləşdirilməsini yerinə yetirmişdir.

2004-cü ilin Oktyabr ayında yerinə yetirilmiş satınalmaların imkanlarının qiymətləndirilməsi göstərmişdir ki, LİQ (PIU) və Azerenerji layihə üçün minimum tələblərə cavab verirlər. Burada çatışmazlıqlar Azərenerji heyətinin donorlar vasitəsilə maliyyələşdirilən layihələrin yerinə yetirilməsi üzrə əvvəlki təcrübəsini nəzərə alaraq, spesifik Bank satınalmalar prosedurları barədə məlumat azlığı ilə məhdudlaşır. Şərtlər TY (TA) üçün Layihənin D Komponenti altında satınalmaların və mərkəzin ehtiyaclarını aşkarlamaq üçün yerinə yetirilmişdir.

4. Sosial

Layihə elektrik enerjisinin etibarlılığını və keyfiyyətinin artıraraq, pozitiv sosial təsirə malik olacaqdır və layihənin birbaşa neqativ sosial təsirləri yoxdur. Elektrik enerjisi tariflərinin təklif olunmuş artımları istehlakçılar üçün daha yüksək xərclərə gətirib çıxaracağı bir vaxtda, hazırda Azərenerjini dəstəkləmək üçün Dövlət Büdcəsinin ayrılan ehtiyatlar gəlirləri aşağı olan əhəlinin müdafiəsi üçün məqsədlənə bilər. Yeni kredit, "Pensiya və Sosial Yardım Layihəsi" (BİA (IDA), 2004) Hökumətin sosial müdafiə sistemini təkmilləşdirməsi işlərini dəstəkləyəcəkdir. Hökumət gəliri aşağı olan ailələrin tariflərin artmasından yaranacaq neqativ hallardan qoruyacaq məqsədi sosial yardım proqramını hazırlamışdır.

2004-cü ildə Bank, enerji sektorda həyata keçirilən islahatların təsirinin, ən əsası tariflərin artımının təsirini, tədqiq etmək üçün Yoxsulluğun Sosial Təsirinin Analizini (PSIA) keçirmişdir. Bakıda əhəli öz gəlirlərinin 2 faizini elektrik enerjisinin ödənilməsinə verir. Belə ki, tariflərin 50% artması elektrik enerjisinə görə aylıq ödənişləri 2 ABŞ dollarına çatmasına səbəb olacaqdır ki, bu əlbətdə ki, əhəmiyyətli rəqəmdir, lakin bir çox ailələr üçün 2004-cü ildə pensiya və minimum əmək haqlarının artırılması ilə əlaqədar dözümlüdür. Bakıdan kənar yerlərdə

vəziyyətlə əlaqədar Bankın məlumatları azdır, lakin əgər yüksək tariflər və yüksək yığım faizi hazırkı xidmət səviyyəsini artırmağa imkan verəcəkdir və sosial təsir pozitiv ola bilər.

Layihənin özünün sosial təsirləri nəzarət edə bilmədiyi bir vaxtda, maya dəyərinin aşağı düşməsinə və enerji ilə təchizatın keyfiyyətinin yüksəldilməsinə (ötürmə səviyyəsində) nəzarət oluna bilər. SCADA sistemi Azərenerji heyəti üçün yeni biliklərin qazanılmasına imkan yaradır. Sistem 5 il ərzində YG yarımstansiyalarda işçi heyətinə olan tələbatın azalmasına səbəb ola bilər, lakin bu şirkətin həcmi ilə (9500 nəfər) çox kiçikdir. Azərenerji heyəti əsasən qocalma ilə əlaqədar azaldır.

5. Ətraf Mühit

Layihənin yerinə yetirilməsi ilə elektrik stansiyalarının daha səmərəli istismar olunması qaz və yanacaqdan istifadənin 1.5 faiz azalacağına səbəb olacaqdır ki, bu da parnik qazlarının atmosfərə atılmasına təsir edəcəkdir. Ötürmə zamanı itkilərin 0.5 faiz azalması (5 faizdən 4.5 faizə) elektrik stansiyalardan atılmaları pozitiv təsir göstərir. Nəzərə alsaq ki, layihə enerji ilə təchizatın artmasına və onun daha etibarlı olmasına səbəb olacaqdır, bu əhəlinin özünün istiliyə və işığa olan tələbatını ödəmək üçün ağ neftdən və odundan istifadəsinin azalmasına kömək edəcəkdir. Elektrik stansiyalarda yanacağın qənaətinə və bununla da atılmaların azalmasına layihə vasitəsi ilə nəzarət oluna bilər. Məişət sahəsinin gələcək tədqiqatında elektrik enerjisindən istifadənin səviyyəsinin ağac və ağ neftdən (həmçinin təbii qaz daxil olmaqla) istifadəyə qarşı vəziyyətinə nəzarət edəcəkdir. Eyni zamanda, gözlənilir ki, kommunal təsərrüfatın sub sektorları üçün hökumətin strategiyasının əsas hissəsinin formalaşdırın tarif artımları elektrik enerjisinin daha səmərəli istifadə olunmasına təkan verəcək, bununla da, gələcəkdə gözlənilən parnik qazları üzrə atılmalar azalacaqdır.

6. Ehtiyat tədbirləri üzrə siyasət

Layihənin səbəb olduğu Ehtiyat Tədbirlər Siyasətlər	Hə	Yox
Ətraf Mühitin Qiymətləndirilməsi (OP/BP/GP 4.01)	[x]	[]
Təbii Məskunlaşma Mühiti (OP/BP 4.04)	[]	[x]
Ziyanvericilərlə mübarizə (OP 4.09)	[]	[x]
Mədəni Mülkiyyət (OPN 11.03, OP 4.11 kimi baxıla bilər)	[]	[x]
Məcburi Köçürülmə (OP/BP 4.12)	[]	[x]
Yerli Əhali (OD 4.20, OP 4.10 kimi baxıla bilər)	[]	[x]
Məşəllər (OP/BP 4.36)	[]	[x]
Bəndlərin Təhlükəsizliyi (OP/BP 4.37)	[]	[x]
Mübahisəli Ərazilərdə Layihələr (OP/BP/GP 7.60)	[]	[x]
Beynəlxalq Su Yollarında Layihələr (OP/BP/GP 7.50)	[]	[x]

Layihə B ekoloji kateqoriyasını almışdır, belə ki, layihə ilə əlaqədar təklif olunan investisiyalar mövcud olan avadanlıqlarla və icazə verilən torpaq sahələri ilə məhdudlaşacaq və hər hansı xoşagəlməz ekoloji təsirin yaranmasına və ya digər ehtiyat tədbirlərinin görülməsinə səbəb olmayacaqdır. Ətraf Mühitin Qiymətləndirilməsinin (ƏMQ) bir hissəsi kimi tikinti işləri zamanı yaranan (xətlərin təmiri, transformatorın əvəzlənməsi və s.), tullantıların atılması və istismar zamanı (texniki xidmətlə əlaqədar işlər) layihəyə yerli təsirlərin azaldılması prosedurlarının

təyini üçün Ətraf Mühitin İdarə olunması Planı (ƏMİP) hazırlanmışdır. ƏMİP-in açılması və ictimai məsləhətləşmələr yerinə yetirilmişdir. Mübahisəli ərazilər/konflikt sahələr üzrə hər hansı sub layihələr olmayacaqdır.

7. İtisnalar və Hazırlıq

Layihə Bankın bütün apardığı siyasətə uyğundur.

Layihənin texniki-iqtisadi əsaslandırması hazırlanmış və Azərenerjinin Texniki Şurası tərəfindən təsdiq olunmuşdur.

Satınalmalar Planı hazırlanmış və Borcalanla razılaşdırılmışdır.

Enerji Sistemin İdarəedilməsinin A Komponenti üçün ilin kvalifikasiya sənədləri alınmış və qiymətləndirilmişdir. İki mərhələli təklif etmə üçün sənədlər hazırlanır. Borcalan, təklif etmə mərhələləri və müqavilə danışıqları yolu ilə satınalmaları və texniki köməyi təmin edən məcləhətçi şirkəti (konsorsiumu) ilə işə başlamışdır.

Əlavə 1: Ölkənin və Sektorun ümumi təsviri

Azərbaycan: Elektrik Ötürücü Sistemi Layihəsi

Azərbaycan Sovet İttifaqının dağılması ilə əlaqədar əldə etdiyi müstəqilliyə keçid dövründə digər MDB ölkələri kimi çoxsaylı problemlərlə üzləşdi. Bununla belə, müharibə ilə əlaqədar yaranmış çoxsaylı məcburi köçkünlər və qaçqınlar (IDPs) bu problemləri daha da ağırlaşdırdılar. Beləliklə də, Azərbaycan bugünkü günə Avropa və Mərkəzi Asiya dövlətləri içərisində ən aşağı gəliri olan yeddi dövlətdən biridir. Lakin burada bir pozitiv səbəb vardır ki, bu da Azərbaycanın, hal-hazırda istismar olunan böyük neft və qaz yataqlarına malik olmasıdır. Ölkənin bu yataqlarda olan məhdud ehtiyatları necə istismar edəcəyi və gözlənilən böyük həcmdə gəlirlərdən necə istifadə edəcəyi YASS-də (PRSP) əks olunan yoxsulluğun azaldılması üzrə orta müddətli məqsədlərin uğurlu həyata keçirilməsini təyin edəcəkdir.

1. Makroiqtisadi və İdarəetmə İstiqamətləri. Hiperinflyasiya və ciddi azalmadan sonra, inflyasiya səviyyəsinin ildə 0.1 faiz düşməsi ilə bərabər, 1997-2002-ci illər ərzində iqtisadi artım ildə 9 faiz təşkil etmişdir. Azərbaycan düşünülmüş maliyyə-kredit siyasəti həyata keçirməklə əhəmiyyətli nailiyyətlər əldə etmişdir. Xarici borc kiçikdir və ödənilə biləndir. Neft və qaz istehsalı planlaşdırdığı kimi inkişaf edir, ÜDM (GDP) 2003-cü ildə 11.2 faiz artmışdır ki, bu da həm düşünülmüş siyasəti, həm də neftin yüksək qiymətlərini əks etdirir. Bununla belə, neft istehsalının özünün pik göstəricisinə 2010-cü ildə çatacaq və 2013-cü ildən sonra isə digər əsas kəşf olunan yataqların olmaması səbəbindən kəskin aşağı enməyə başlayacaqdır. Neft Fondu əldə olunacaq böyük gəlirlərin idarə olunmasında və indiki və gələcək nəsillər üçün artımın təmin olunmasında rolunu vacib olacaqdır. Qeyri-neft sektorunun çoxşahəli inkişafı iş yerlərinin və aktivlərin yaranması üçün əsas şərtidir. AYİB və Dünya Bankının birgə həyata keçirdiyi Biznes Mühiti və Müəssisələrin İşləmə Bacarığı mövzusunda həyata keçirdiyi tədqiqat göstərmişdir ki, 1999-2002-ci illər ərzində idarəetmədə süründürməçilik və korrupsiya hallarına qarşı mübarizə əhəmiyyətli irəliləyişlər əldə olumağına baxmayaraq, biznes şəraitinin daha da yaxşılaşdırılması üçün görüləcək işlər mövcuddur.

2. Yoxsulluğun Azaldılması. Yoxsulluq azaldılması ilə əlaqədar işlərdə yaxın zamanlarda bir sıra irəliləyişin olmasına baxmayaraq, hələ də əhalinin təxmini 47 faizi yoxsulluq həddində və 9 faizi isə yoxsulluq həddindən aşağı səviyyədə yaşayır. Yoxsulluğun səviyyəsi rayon-kənd ərazilərində daha çox özünü biruzə verir, bununla belə kənd ərazilərinin xidmətlərə giriş imkanları məhduddur və burada yoxsulluğun təyin edilməsinin müxtəlif dərəcələri mövsuddur. Neft ehtiyatlarının müvafiq idarəedilməsi Minilliyin İnkişafı Məqsədlərinə cavab vermək üçün geniş perspektiv imkanlar verir.

3. Azərbaycanın Yoxsulluğun Azaldılması Strategiyası üzrə Sənədi (PRSP), Yoxsulluğun Azaldılması və İqtisadi İnkişaf üzrə Dövlət Proqramı (SPPRED) kimi başa düşülür və özündə altı strateji məqsədi əks etdirir: (i) gəlir əldə etmək üçün müvafiq mühitin olması; (ii) makroiqtisadi sabillik; (iii) keyfiyyətli və düzgün təhsilin və tibbi xidmətin alınması; (iv) infraqurumlar üzrə inkişafın olması (bura yollar, kommunal xidmətlər, və irriqasiya daxildir); (v) həssas əhali qrupuna daha effektiv xidmət göstərmək üçün sosial müdafiə islahatları; və (vi) qaçqın və məcburi köçkünlər (IDPs) üçün daha yaxşı şərait. YAİİDP (SPPRED) və Minilliyin İnkişaf Məqsədləri (MDG) Ölkəyə Yardım Strategiyası (CAS) çərçivəsinin yaradılması üçün xidmət edir, belə ki, onun dörd strateji məqsədi YAİİDP-nin (SPPRED) altı məqsədini gücləndirmək

üçün təyin olunmuşdur. Ümumilikdə, Azərbaycan 2015-ci ilə qədər MİM-in (MDGs) göstərilənlərin çox hissəsinin həyata keçirilməsi istiqamətindədir. Burada yalnız, müraciət edilən məlumatların doğru olmasına şübhə ilə əlaqədar, sağlamlıq göstəricilərinin təyin edilməsində çətinliyin yaranması səbəbindən etiraz vardır.

Azərbaycanın enerji sektorunda olan ilkin problemlər digər keçmiş sovet respublikaları üçün tipik səciyyəvi xarakterə malikdir, belə ki: (i) investisiyaların və texniki xidmətin qeyri-adekvat səviyyəsi, (ii) enerji haqları üzrə yığımın və enerji tariflərinin qeyri-adekvat olması, və (iii) enerji sistemin vahid enerji sistemin bir hissəsi kimi fəaliyyət göstərməsi. Dağlıq Qarabağ münaqişəsi problemləri Azərbaycan üçün daha da ağırlaşdırdı, əhalinin çoxsaylı hissəsi yaşadıkları ərazilərdən didərgin düşdü, bu da ölkənin cənub-qərbində yerləşən çoxlu sayda enerji qurğularının itirilməsinə səbəb oldu. Yaxın dövrlərə kimi enerji sektorun BMQ-dən (IFIs) əhəmiyyətli investisiyalar almasına baxmayaraq, Azərenerji hələ də maliyyə cəhətdən Hökumətin həyata keçirəcəyi tarif siyasətindən və enerji sektorda yerinə yetiriləcək özəlləşdirmə strategiyasından çox asılıdır.

Bu problemlərin həllinə ünvanlanan Hökumətin strategiyası Bankın üzvü olan bir sıra ölkələrdə yerinə yetirilən sektor islahatları proqramına uyğundur. Atılacaq addımlar aşağıdakılardır: (i) istehsalın idarəedilməsi və mülkiyyət hüquqlarını ayırmaq üçün setorun restrukturlaşdırılması; (ii) sektorda fəaliyyət göstərən şirkətlərin maliyyə dayanıqlığına əmin olmaq və burada rəqabət mühitini əldə etmək üçün tənzimləmə strukturunu və institutların yaradılması; (iii) əhalinin həssas hissəsinin tarif artımlarına olacaq təsirini azaltmaq üçün məqsədli sosial müdafiə proqramlarının işə salınması; və (iv) enerjinin istehsalı və ötürülməsi əməliyyatlarının idarəedilməsi və maliyyələşdirilməsi işlərinə özəl sektorun cəlb edilməsi.

Yuxarıda qeyd edilənlə əlaqədar, Hökumət ötürücü sistemin yenidən quraraq, dörd regional şirkətlərə böldü və bu şirkətlərlə idarəetmə üzrə (Barmek ilə Bakı və ölkənin şimal-şərq hissəsi barədə, Bayva ilə isə ölkənin qərb və cənub hissələri barədə) uzun müddətli müqavilələr bağladı. Öz-özlüyündə bu müqavilələr şəbəkələri 25 il müddətinə idarəçiliyə verilməsi və idarəetmə şirkətlərinin investisiya öhdəlikləri olduğu üçün güzəşt xarakterlidirlər. Investitorları və operatorları cəlb etmək üçün Hökumət, distribyutorlara son istifadəçilərdən ödəniş üzrə yığımları təşkil etdikləri bir vaxtda, Azərenerjidən aldıkları elektrik enerjisinə görə ödənişlərin bir hissəsinin ödənilməsinə təxirə salmışdır. 2010-cu ildə Azərenerjiyə ödənişlər 100 faiz həcmində olmalıdır. Bu Azərenerjinin keçid dövründə Hökumətin maliyyə yardımlarından asılı olmasının iki səbəbindən biridir. Digər əsas səbəb topdansatış tariflərinin istehsal xərclərinin ödənilməsi səviyyəsində olmamasıdır ki, bu tarilərin də artması, sonradan aşığıda təsvir olunduğu kimi, 2010-cü ilə qədər baş verəcəkdir.

4. 2003-05-ci maliyyə ilində ÖYS (CAS) özündə bir-biri ilə əlaqədar olan dörd strateji məqsədi əks etdirir: (i) neft gəlirlərinin idarəedilməsi və macro-iqtisadi stabilliyin təmin edilməsi; (ii) iş yerlərinin açılması və qeyri-neft sektorun inkişafı; (iii) sosial xidmət və infrastrukturunda azalmaların əksinə xidmətlərin əldə olunması imkanlarının artırılması; (iv) azərbaycanın yoxsulluğun azaldılması proqramının nəzərdə tutulan vaxtda hazırlanmasında və genişləndirilməsində neft ehtiyatlarından istifadəyə köməklik. Bu işlər kombinə edilmiş balanslaşdırılmış siyasətə formasında - analitik dəstək ilə bərabər, investisiya və yardım layihələrinə (YASK (PRSCs)), institutların yaradılmasına və texniki köməyə əsaslanmalıdır.

Təklif olunmuş Elektrik Ötürücü Sistemi Layihəsi üçüncü strateji məqsədə – xidmətlərin əldə edilməsinin artırılması məqsədinə dəstək verən mexanizm kimi ÖYS-da (CAS) qeyd edilmişdir.

5. YASK (PRSC) tərəfindən Enerji Sektorda İnstitusional İslahatlar. Yoxsulluğun Azaldılmasına Yardım Krediti ilə əlaqədar Hökumətin İnkişaf Siyasəti üzrə Məktubunda sektorda olan təbii monopoliyaların maliyyə restrukturlaşdırılmasının keçirilməsi yolu ilə infrastrukturda və müəssisələrdə islahatların həyata keçirilməsi; kommertiya və tənzimləmə funksiyalarının ayrılması; və müvafiq tənzimləmə strukturunun yaradılması kimi öhdəlikləri əks etdirir. daxil edir.

Məktubun (LDP) qoşmasında (Əlavə 1-ə verilən Qoşma 1-də tam mətnə bax) Hökumət sektorda kommunal xidmətlərin maliyyə dayanıqlığına necə zəmanət verəcəyini göstərir. Hökumət anlayır ki, müvafiq keyfiyyətli kommunal xidmətlərin göstərilməsi əhalinin həyat səviyyəsinin artması üçün tələb olunan vacib şərtidir. Buna görə də, Hökumət bu ehtiyaclara ünvanlanan strategiyayı hazırlamışdır. Bu strategiyanın beş komponenti vardır:

- Kommunal xidmətlərin inkişaf etdirilməsində özəl sektorun iştirakının artırılması;
- Azərbaycan üçün orta tarif siyasətinin tətbiq edilməsi;
- Beynəlxalq maliyyə standartlarının yerinə yetirilməsi;
- Müvafiq tənzimləmə mühitinin yaradılması; və
- Yeni Rəqabət haqqında Qanun vasitəsilə rəqabət mühitinin gücləndirilməsi.

Strategiyaya əsasən, enerjinin istehsalı daxil olmaqla, Hökumət yaxın beş il ərzində kommunal xidmətlərin göstərilməsi sahəsində özəl sektorun iştirakının səviyyəsini artıracaqdır.

İSM-nə (LDP) verilən qoşmada orta tarif siyasəti təfəsilatı ilə göstərilmədən qeyd edilir. Burada ən vacibi Hökumətin 2010-cu ilə qədər elektrik enerjisi üçün verilən bütün maliyyə yardımlarının ayrılmasının dayandırılacağı və istahsal xərclərini ödəməyə imkan verən tariflərə yetişməsi əlaqədar öhdəlik götürür. Tariflərin çox mərhələli formada artması, bu tarif artımlarının mümkünliyünün tam mənasını verəcəkdir. 2005-ci ilin Yanvar ayının 1-dən və ya ona yaxın müddətdən etibarən Hökumət təbii qazın, Bakıda su təchizatı, benzin və dizel yanacağıının tariflərini əhəmiyyətli dərəcədə artırmışdır. Həmçinin, Hökumət, elektrik enerjisi üzrə tariflərin artırılmasını təxirə salmışdır.

Hökumət elektrik enerjisi, qaz, su və kanalizasiya sektorlarını əhatə edəcək, müstəqil tənzimləyici agentliyin yaradılması ilə əlaqədar ilkin qanun layihəsini hazırlamışdır. Bu qanun layihəsi Parlamentin aprel/may sessiyasının gündəliyində olacaqdır.

6. Enerji Sektorun Strukturu. Azərbaycanın generasiya güclərinin tərkibi qarışıq istilik və su üzrə generasiya qurğularından ibarətdir. Ötürücü və paylayıcı sistem demək olar ki, universal daxil olma üçün layihələndirilmişdir. Azərbaycanın ötürücü sistemi Rusiya, Gürcüstan, İran və Türkiyə ilə enerji mübadiləsi həyata keçirmək imkanlarına malikdir. Ermənistanı gedən xətt qismən sökülmüşdür. Aşağıdakı Cədvəl 1-də sektorda gücü cəmləşdirir. Azərenerji enerjinin istahsalını və ötürülməsini yerinə yetirən dövlət şirkətidir. Enerjinin paylanması işləri dörd regional paylayıcı şirkətlər ilə qruplaşdırılmağa baxmayaraq, həqiqətdə isə Hökumət bu işləri müqavilə üzrə razılaşmalara əsasən, iki özəl şirkətin idarəçiliyinə

vermişdir. Barmek şirkəti Bakı və Sumqayıt regionunu, Bakı Yüksək Gərginlikli Avadanlıqlar Müəssisəsi (Bayva) isə Əli-Bayramlı və Gəncə regionunu idarə edir.

Sektor, həmçinin, texniki xidmət funksiyalarının göstərilməsi və yeni texnologiyaların tətbiqi ilə əlaqədar, qeyri-adekvat maliyyələşdirmədən əziyyət çəkir. Nəticədə infrastrukturun keyfiyyəti pisləşmiş və bununla əlaqədar xidmətin keyfiyyəti də aşağı düşmüşdür. Təkrar olunan açılmalar adət halını almış və bu da sistem üzrə qəzanın yaranması riskini artırmaqda davam edir. Generasiya güclərinin bərpası və təkmilləşdirilməsi və müasir ötürücü idarəetmə sistemində investisiyaların yatırılması sistem üzrə qəzanın yaranması ehtimalını azaldır və bu Elektrik Ötürücü Sistemi Layihəsində Hökumətin göstərdiyi səylərin əsasını təşkil edir.

Sektorun infrastrukturunun pisləşməsi ilə indiki zamanda ölkə elektrik enerjisinə olan öz tələbatını ödəyə bilmir. Özünün təbii ehtiyatlar bazasından, karbohidrogen ehtiyatları bazası, elektrik stansiyalarını ilkin yanacaq təchiz etmək gücünün olmasına baxmayaraq, elektrik enerjisi ilə özünü ödəmənin yenidən bərpa edilməsi üçün generasiya güclərinə əhəmiyyətli investisiyalar tələb olunacaqdır.

Əlavə 1 – Cədvəl: Ötürücü və Paylayıcı Sistem

Ötürmə Sistemi	500 kV	330 kV	220 kV	110 kV	Total
Xətlərin uzunluğu – km.	693.6	961.2	1,225.9	2,283.4	5,164.1
Yarımsansiyaların sayı	1	4	9	23	37
Paylayıcı Sistem	110 kV	35 kV	20 kV	6-10 kV	0.4 kV
Xəttin uzunluğu km.					
Bakı	0	727	72	1,271	6,490
Gəncə	0	1,925	0	12,519	20,659
Əli-Bayramlı	934	1,951	0	11,534	20,529
Sumqayıt	<u>0</u>	<u>527</u>	<u>0</u>	<u>3,672</u>	<u>6,807</u>
Cəmi	934	5,130	72	28,996	54,485
Naqillərin uzunluğu km.					
Bakı	0	111	9	1,653	1,330
Gəncə	0	171	0	0	280
Əli-Bayramlı	0	0	0	15	132
Sumqayıt	<u>0</u>	<u>6</u>	<u>0</u>	<u>297</u>	<u>535</u>
Cəmi	0	288	9	1,965	2,277
Yarımsansiyalar					
Bakı	11	217	57	3,674	
Gəncə	87	192	0	6,129	
Əli-Bayramlı	66	272	0	6,290	
Sumqayıt	<u>29</u>	<u>60</u>	<u>0</u>	<u>2,087</u>	
Cəmi	193	741	57	18,180	

Mənbə: Dünya Bankı üçün t.e.n. Vilayət Vəliyevin hazırladığı hesabat. Ayrılmış Naxçıvan enerji sistemi göstəriciləri bura daxil edilməmişdir.

Əlavə 1 – Cədvəl 2: Elektrik Stansiyaları və Güclər

Adı	Tipi	Blokların sayı	Blokun qoyulmuş gücü MVt	Ümumi Qoyulmuş Güc MVt	Ümumi İşçi güc MVt	Yanacağı n Növü Təbii Qaz (TQ), Mazut (M)	Blokların işə buraxılmışdır
Azərbaycan	İstilik	8	300	2,400	1,383	NG/FO	1981-1990
Əli-Bayramlı	İstilik	7	155-160	1,100	785	NG (4) FO (3)	1962-68
Şimal	İstilik	1	150	150	100	NG/FO	1950
Bakı-1	İstilik	2	55	110	93	NG/FO	
Cəmi İstilik stansiyaları üzrə	İstilik	18		3,760*	2,361		
Mingəçevir	Su	6	60	360	250		1955
Şəmkir	Su	2	190	380	380		1982
Yenikənd	Su	3	37.5	112.5	112.5		2000
Varvara	Su	3	5.5	16.5			1958
Digər	Su			132			
Cəmi Su elektrik stansiyaları üzrə	Su			1,001	742.5		
Ümumi				4,761	3,103.5		

Mənbə: Dünya Bankı üçün t.e.n. Vilayət Vəliyevin hazırladığı hesabat (2002).

*) Daxil edilmiş blokları 0 İşçi Gücü (Bakı 1,2, Sumgayıt 1 ç Sumgayıt 2) ilə təyin edilən halda İstilik Stansiyaları üzrə Qoyulmuş Güc – 4234 Mvt

7. İnvestisiya Tələbləri. Yuxarıdakı Cədvəl 2-dən görüldüyü kimi əldə oluna bilən generasiya gücləri qoyulmuş gücdən azdır, qoyulmuş gücün 60%-dən istifadə olunur. Əldə oluna bilən güc qışda pik saatlarda, elektrik enerjisindən qızdırma məqsədləri üçün istifadə edilən zaman daxili tələbatı ödəmir və 20 faizdən 25 faiz arasında olması gözlənilən ehtiyat gücü isə hazırkı istehlak normalarında² mövcud deyildir.

Pik tələbatın ödənilməsi variantlarına daxildir (i) mövcud generasiya güclərinin genişləndirilməsi və təkmilləşdirilməsi; (ii) regional enerji ticarətinin artırılması; (iii) mövcud olan avadanlıqların işçi göstəricilərinin artırılması; (iv) tələbatın idarə olunması.

2003-cü ildə “Burns&Roe” Şirkəti, Azərenerjinin gələcək enerji ehtiyaclarına cavab verən optimal genişləndirmə planlarını təyin etmək üçün AYİB (EBRD) maliyyələşdirdiyi ən aşağı dəyərin planlaşdırılması tədqiqatını³ aparmışdır. Tədqiqat 2003-2020 illəri əhatə etmişdir və

² 2002-ci ildə, istehlak 18,031 mlrd.kVts.

³ Burns and Roe Inc.: “Azərbaycan Respublikası: Elektrik enerjisinin istehsalı və ötürülməsi üçün İnvestisiya ehtiyaclarının təyin olunması”, Noyabr 2003.

2004 və 2005-ci illərdə elektrik enerjisinin istehlakının 4 faiz, sonradan istehlakın səviyyəsinin illik 1.2 faizdən 1.6 faiz arasında dəyişməklə artacağını proqnozlaşdırmışdır. Daha təfəssilatlı məlumatı bu Əlavə 1-in Qoşma 2-dən almaq olar. Tədqiqat belə nəticələnmişdir ki, tələbatın layihələndirilən səviyyəsini ödəmək üçün 2007-ci ildən etibarən yeni generasiya gücləri tələb olunacaq və 2020-ci ilə tələb olunan əlavə güclər 2000 MVt-a çatacaqdır.

Bu cür generasiya və ötürmə ehtiyaclarına ünvanlanan investisiya üzrə tələblər 475 milyon ABŞ dollarından artıq olmaqla bərabər, onun təxmini 280 milyon ABŞ dolları yaxın dövrdə böhran vəziyyətində olan obyektlərə (400 MVt gücündə planlaşdırılmış Şimal buxar-qaz qurğusu bura daxil deyildir) tələb olunur. Investisiya üzrə tələblər qısa şəkildə Cədvəl 3-də cəmləşdirilmişdir.

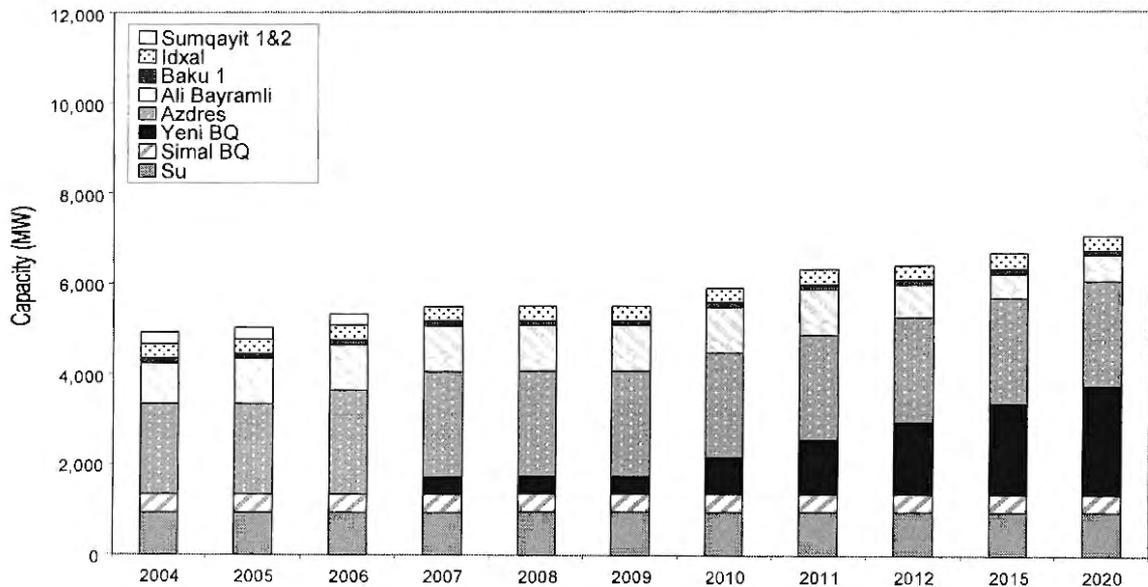
Əlavə 1 – Cədvəl 3: Enerji sektorun Investisiya Tələbləri

	Cəmi Dəyər 2003 milyon ABD	2004 – 2007 Ehtiyacları 2003 milyon ABD
İstehsal: Planlaşdırılan ən aşağı dəyər tədqiqatına əsaslanan halda bərpa və təkmilləşdirmə	246.7	74.1
Ötürmə: Ötürücü sistemin gücləndirilməsi və Dispetçer Mərkəzinin Əvəzlənməsi	231,7	205,6
Cəmi	478.4	279.7

Mənbə: Burns and Roe

Bu investisiyalar ilə Azərbaycan özünün 2020-ci ilə qədər planlaşdırılan tələbatını ödəyən generasiya profilinin tələblərinə cavab verə bilər. Bu profil aşağıdakı Cədvəl 4 -də göstərilmişdir.

Əlavə 1 – Cədvəl 4: Quraşdırılacaq Generasiya Gücləri Proqnozu – Əsas Hal



Mənbə: Burns and Roe

Yaxın dövrlərdə tələbatı ödəmək və yeni güclərin tikintisi və maliyyələşdirilməsi üçün vaxt əldə etmək üçün mövcud generasiya avadanlıqlarının təkmilləşdirilməsi və bərpası prioritet investisiyalar tələb edir. Minimum olaraq, geniş miqyaslı qəza riskini azaltmaq üçün avariya halında olan avadanlıqlar yaxşılaşdırıla bilər. AYİB (EBRD) elektrik stansiyalarına təcili investisiyaların yatırılması işlərinin gücləndirməsini dəstəkləyən kredit⁴ hazırlayır.

Ötürmə sisteminin daha çox sistem qəzaya uğramaq ehtimalı vardır və artıq yüklənmə və rele mühafizə əməliyyatları qış vaxtı açılmaları⁵ yarıdan əsas səbəblərdir. Burada böyük risk vardır ki, avadanlıqların yararlılığı səviyyəsi elektrik stansiyaların tələbat mərkəzlərinə müqayisədə sub-optimal yerləşməsi və ötürücü xətlərin uzun olması səbəbindən azalması davam edə bilər. Elektrik Ötürücü Sistemi Layihəsi çərçivəsində SCADA⁶ kimi müasir ötürücü idarəetmə sistemində investisiyaların qoyulması, qəza riskinin azalmasına və paylaşdırmanın səmərəliliyini artırılmasına səbəb ola bilər. Ən Aşağı Dəyər Planı, həmçinin, Dispetçer Mərkəzinin əvəzlənməsi işlərini nəzərdə tutur ki, bu da KfW-nin əsas yarımstansiyaların⁷ təkmilləşdirilməsini təmin edən prioritet investisiyadır.

8. Enerjinin Paylanması İdarəedilməsi üzrə Müqavilələr. Barmek özəl şirkət olaraq, 2002-ci ildən Bakının, 2003-cü ildən isə Sumqayıtın idarəçiliyini öz üzərinə götürmüşdür. Özəl şirkət olan Bakı Yüksək Gərginlikli Avadanlıqlar Müəssisəsi ("Bayva") 2003-cü ildən etibarən Əli-Bayramlı və Gəncə regionunun enerji təchizat üzrə idarəçiliyini öz üzərinə götürmüşdür.

Ötürücü vasitələri özl sektorun idarəçiliyinə verməklə, paylaşdırıcı sistem üçün investisiyalar üzrə məsuliyyət onların üzərinə düşür. Bu şərtlər 25 il üçün bağlanmış güzəştlərin verilməsi barədə müqavilə (bu həm də "idarəçiliyə vermə müqaviləsi" kimi başa düşülür) öhdəliklərinə əsasən təyin olunmuşdur. Müqavilələrdə özəl sektor tərəfindən investisiya planlarının həyata keçirilməsi nəzərdə tutulur. Gələcək investisiya tələblərinin ödənilməsi paylayıcı şirkətlərin ehtiyatlara malik olması tələb edəcəyini nəzərə alaraq, Hökumət bu şirkətlərlə daha sıx işləyərək paylayıcı sistemə qoyulan adekvat investisiyaların müqabilində müvafiq stimulların olacağına onları əmin etməlidir. Dörd regional distribyutor və pərakəndə satış şirkətləri bağlanmış idarəetmə müqavilələri aşağıdakı tələbləri özündə əks etdirir:

- Göstərilən ərazilərdə heç olmasa il ərzində minimum səviyyədə investisiyaların yatırması;
- Təyin olunmuş istehlakçı qruplar üçün sayğacların quraşdırılması;
- Operator tərəfindən təklif olunmuş və İİN (MED) tərəfindən razılaşdırılmış texniki və istismar standartlarının yerinə yetirməsi;
- Texniki itkilər azaldılması;
- Birinci il üçün təfəsilatlı investisiya proqramının və şirkətin gələcək biznes planlarını əks etdirən texniki-iqtisadi əsaslandırmanın təklif edilməsi; və
- Müqavilənin birinci üç ili üçün "sabit qiymət" ilə məhdud əməliyyatların aparılması;

⁴ AYİB-nin gözlənilən kreditin məbləği 10060 milyon ABD.

⁵ Bu 2002-ci ilin İyul ayında özünü göstərdi. Belə ki, ərazidə yaranan yanğın ötürücü xətlərə texniki xidmətin pis vəziyyətdə olması ilə birgə, Mingəçevirdə yerləşən AzDRES ilə Bakı arasında olan həm 500 kV-luq xətdə, həm də 330 kV-luq xətdə yaranmış qısa qapanma səbəbindən bütün enerji sistemində açıldı və ölkə tam enerjisiz qaldı.

⁶ Avtomatik İdarəetmə Sistemi (EMS), tele-rabitə və ölçü sisteminin təkmilləşdirilməsi daxil olmaqla.

⁷ KfW-nin krediti 15 milyon Avro.

İcarədarlar paylaşdırıcı aktivləri son istehlakçılardan yığımın aşağı olduğu bir vaxtda götürmüşlər. Beləliklə də, icarədarlar müqavilənin şərtlərinə görə ilkin illərdə Azərənəridən aldıkları enerji haqlarının az hissəsinə görə ödənişlər edəcəklər. Belə ki, bu göstərici ilkin 35 faiz, sonra 50 faiz və səviyyənin sonrakı bir neçə ilə artması nəzərdə tutulmuşdur. Bakıda olan şəbəkə üçün kontraktor aldığı elektrik enerjisinin haqlarının tam ödənilməsinə hazırki onilliyin ikinci yarısında, digər şəbəkələr üçün isə bu onilliyin axırında nəzərdə tutulmuşdur. Sonradan əvvəlki vaxtlarda ötürülmüş enerjinin dəyərinin ödənilməsi üçün ödənişlərin səviyyəsi hazırki istehlakı 100 faiz üstəliyəcəkdir.

9. Enerji Sektordakı İnstitutlar, Qanunlar və Tənzimləmə. İqtisadi İnkişaf (MED) və Sənaye və Energetika Nazirlikləri 2001-ci⁸ ildə yaradılmışlar və onlar enerji sektorda siyasəti həyata keçirən siyasət üçün məsuliyyət daşıyan ilkin agentliklərdirlər. İİN (MED) bura adxildir iqtisadi taktikanın seçilməsi, tənzimləmə, qiymət təyin etmə və tariflər, lisenziyalaşdırma və əmlakın idarə olunması kimi geniş funksiyalara və səlahiyyətlərə malikdir. SEN (MIE) neft və qaz istehsalı, yanacaqın ötürülməsi və emalı, elektrik enerjisinin istahsalı və ötürülməsi, istiliklə təchizetmə və qazın ötürülməsi və paylanması kimi sahələrdə Dövlət siyasətinin qurulmasına və onu həyata keçirilməsinə məsuliyyət daşıyır.

İqtisadi İnkişaf Nazirinin rəhbərliyi altında Tarif Şurası elektrik enerjisi, təbii qaz, və su sektorunda olan monopolist xidmətlərə müraciət edir. O, tariflərin tənzimlənməsi ilə Nazirlər Kabinetinə təkliflər vermək, istehlakçı qrupları təyin etmək və real dəyəri əks etdirən tariflərin tətbiq edilməsi ilə layihələrin qəbul edilməsi səlahiyyətlərinə malikdir. İİN-in (MED) Şuranı texniki və inzibati imkanlarla təmin edən qiymət təyin etmə və tarif siyasəti funksiyası vardır. Şura həmçinin sənaye təmsilçilərinin daxil olduğu İşçi Qruplarla təmin olunur. Şura Tariflərin təyin olunması prosesi və prinsiplərini əks etdirən qaydalar və prosedurları⁹ təyin etmişdir. Lakin, onlar spesifik sektor problemlərinə ünvanlanmamışdır. Kommunal sektor üçün tariflərə əhali istehlakçı qruplarına verilən geniş subsidiyalar daxildir.

Hökumət enerji, qaz, su və kanalizasiya kimi sektorları əhatə edəcək müstəqil Tənzimləyici Agentliyin yaradılması barədə qanun layihəsini ilkin variantını hazırlamışdır. Bu qanun layihəsi Parlamentin aprel/may sessiyasının gündəliyində olacaqdır. Hökumət tənzimləyici agentliyin yaradılmasını 2005-ci ilə planlaşdırır və onun tam işlək vəziyyətə gətirilməsini 2006-cı ilin ortalarına təyin edir. Dünya Bankı Hökumətə yeni agentliklə əlaqədar qanunvericilik və tənzimləmə bazasının yaradılmasında yardım etmək üçün 2003-2004-cü ildə PPIAF vasitəsilə bütün ehtiyatları səfərbər etmişdir. USAID tərəfindən maliyyələşdirilən məsləhətçilər Hökumətə tənzimləmə sahəsində 2004-cü ilin ortalarından davamlı olaraq yardım göstərmişlər.

Enerji sektora aiddiyatı olan əsas hüquqi şərtlər aşağıdakı cədvəl Cədvəl 5-də verilmiş qanunlarda təsbit olunmuşdur:

⁸ İİN Prezidentin 475 №-li Fərmanı ilə (30 aprel, 2001), YEN isə Prezidentin 458 №-li Fərmanı ilə (18 Aprel, 2001) yaradılmışdır.

⁹ Təbii Monopolist Qurumların Məhsullarının (İşlər, Xidmətlər) Qiymətlərin (Tariflərin) Formalaşdırılması və Dövlət tərəfindən Tənzimlənmə Qaydaları, İİN-nin 20 sentyabr, 2002-ci il tarixli 67 №-li Əmri. Bu qaydalar Ədliyyə Nazirliyində qeydiyyatdan keçirilmişdir.

Əlavə 1 – Cədvəl 5: Qanunvericilik Strukturu

Elektrik enerjisi haqqında qanun (1998) – Bu qanun elektrik və istilik enerjisinin istahsalına, onun ötürülməsinə, paylanmasına, alınmasına, satılmasına və istehlakına hüquqi əsas verir. Bu elektrik enerjisi üzrə Dövlət şirkətlərinin, enerji təchizat şirkətlərinin, müstəqil enerji istahsalçılarının və istehlakçıların fəaliyyətini tənzimləyir. Müvafiq Dövlət təşkilatları lisenziyalaşdırma, ötürmə və paylanma müqavilələrinə, qiymət təyin etməyə, de-monopolizasiya, keyfiyyət kriteriyalarına, qaydalara və standartlara görə məsuliyyət daşıyırlar.

Enerji haqqında Qanun (1999) – Bu qanun enerji üzrə siyasətin məqsədlərini, resursların mülkiyyətini, ehtiyatların aşkar edilməsinə nəzarəti, sahənin inkişafını və ötürücü sistemin tikintisini və ona texniki xidməti əhatə edir. Qanuna elektrik enerjisindən səmərəli istifadə olunması üzrə öhdəliklər və əhəmiyyətli lisenziyalaşdırma şərtləri daxil edir.

Enerji Ehtiyatlarından İstifadə haqqında Qanun (1996) – Bu enerji ehtiyatlarından səmərəli istifadəyə əsaslanan hüquqi, iqtisadi və sosial siyasəti təmin edir. Dövlət Dövlət müəssisələri və təşkilatları tərəfindən enerji resurslarından istifadəyə nəzarət etməyə, resurslardan səmərəli istifadə üçün siyasəti təyin etmək səlahiyyətlərinə, və enerjiyə qənaət edən avadanlıq və texnologiyaların tətbiq olunması üçün geniş mexanizmlərə malikdir. Enerji reurslarından istifadə üçün planların qeydiyyatdan keçirilməsi bu qanuna əsaslanır..

Xarici İnvestisiyaların Mühafizəsi barədə Qanun (1992) – Bura bir sıra xarici investorlar üçün qarantiyalar və inkişaf və tədqiqat ilə əlaqədar hüquqların alınmasına imkanları daxildir. Bu Qanuna dəyişikliklər planlaşdırılmışdır.

Elektrik enerji sahəsindən başqa digər sub-sektorlara aid olan qanunlar: Qaz Təchizatı haqqında Qanun (1998), Pay Bölgüsü Razılaşmalar (PSAs), Neft haqqında Qanun hazırlanır.

Əlavə 1-ə Qoşma 1: Ölkənin və Sektorun ümumi Təsviri

YASK-1 (PRSC-1) üçün Hökumətin İnkişaf Siyasəti barədə Məktubuna Qoşma

Azərbaycanın Kommunal Xidmətləri Sektorunda Orta Müddətli Tarif Siyasəti

Cari vəziyyət

Azərbaycan hökuməti beynəlxalq maliyyə institutları ilə sıx əməkdaşlıq şəraitində kommunal xidmətləri sahəsində islahatlara başlamış, kommunal xidmətləri müəssisələri ilə bu xidmətlərin istehlakçıları arasında yeni münasibətlər formalaşmış, bir sıra nailiyyətlər əldə olunmuş və hazırda işlər davam etdirilir.

Ümumilikdə isə ölkə iqtisadiyyatının inkişafı, xidmət və istehsal obyektlərinin sayının artması, kommunal xidmətlərin həcmi və keyfiyyətinə tələblərin sərtləşməsi daha yeni və radikal addımların atılmasını, ölkənin sosial-iqtisadi inkişafına təsir edən problemlərin həlli üzrə əlavə tədbirlərin həyata keçirilməsini zəruri edir.

Hazırda strateji əhəmiyyətə malik bir sahə kimi kommunal xidmətləri sahəsinin problemlərinin ümumiliyi, bir-biri ilə sıx bağlılığı, kompleks yanaşma tələb etməsi, həllinin iqtisadi və sosial nəticələr doğura biləcəyi nəzərə alınaraq ehtiyatlı addımlar atılması, kommunal xidmətlərin səmərəliliyinin təmin edilməsi tələb olunur.

Bu baxımdan «Enerji və su sektorunda maliyyə intizamının gücləndirilməsi Proqramı»nın təsdiq edilməsi barədə Azərbaycan Respublikası Prezidentinin 25 mart 2002-ci il tarixli 893 nömrəli Sərəncamı başlanmış işlərin müddətlərini və icraçılarını müəyyən etməklə kommunal sahədə islahatların sürətləndirilməsinə böyük təkan vermiş, «Azərbaycan Respublikasında sosial-iqtisadi inkişafın sürətləndirilməsi tədbirləri haqqında» Azərbaycan Respublikası Prezidentinin 24 noyabr 2003-cü il tarixli 4 nömrəli, «Azərbaycan Respublikasının 2004-cü il dövlət büdcəsi haqqında» Azərbaycan Respublikası Qanununun tətbiq edilməsi barədə» Azərbaycan Respublikası Prezidentinin 27 dekabr 2003-cü il tarixli 9 nömrəli və «Azərbaycan Respublikası regionlarının sosial-iqtisadi inkişafı Dövlət Proqramının (2004-2008-ci illər) təsdiq edilməsi haqqında» Azərbaycan Respublikası Prezidentinin 11 fevral 2004-cü il tarixli 24 nömrəli Fərmanları ilə verilmiş tapşırıqlar daha da konkretləşdirilmişdir.

Eyni zamanda, son illər kommunal xidmətləri sektoru (qaz, elektrik enerjisi, su təminatı, çirkab suların axıdılması və s.) üzrə təsərrüfat subyektlərinin maliyyə, texniki, texnologi və maliyyə vəziyyətinin yaxşılaşdırılması üzrə (istehlakçıların ödəmə qabiliyyətinin artırılması, sayğacların quraşdırılması, boru kəmərlərinin bərpası, təmizləyici və ötürücü qurğuların təmiri, yeni istehsal və ötürmə güclərinin istismara verilməsi və s.) müvafiq tədbirlərin həyata keçirilməsinə baxmayaraq vəziyyət hələ də ağır olaraq qalır. Dünya bazarında enerji resurslarının qiymətlərinin ardıcıl olaraq artması ilə problemlər daha da dərinləşmişdir.

Yeni tariflərə keçidin zəruriliyi

Kommunal xidmətləri sektorunun problemləri (texniki, texnologi, iqtisadi və s.) arasında iqtisadi cəhətdən əsaslandırılmış tariflərə keçid olduqca mühüm əhəmiyyət kəsb etməklə sahədə maliyyə intizamının yaradılmasının başlıca meyarı və həm də digər problemlərin açarı kimi çıxış edir. Eyni zamanda ölkədə əhalinin alıcılıq və ödəmə qabiliyyətinin aşağı olması, kommunal xidmətləri göstərən təşkilatların itkilərinin yüksək səviyyəsi, uçotun düzgün aparılmaması, əksər abunəçilərdə sayğacların olmaması kimi problemlər iqtisadi cəhətdən əsaslandırılmış tariflərə keçidi ləngitməklə operativ qərarların qəbul edilməsi sahəsində çətinliklər yaradır və eyni zamanda bu kimi kapitəltutumlu sahəyə investisiyaların cəlb edilməsini ağırlaşdırır. Ümumilikdə isə əksər kommunal xidmət növlərinin əhali üçün tariflərinin ona çəkilməmiş xərclərdən dəfələrlə aşağı olması digər istehlakçı qruplarının tariflərinin yüksək həddə müəyyən edilməsinə, onların çarpaz subsidiyalaşdırılmasına və nəticədə iqtisadiyyatda ədalət prinsiplərinin itirilməsinə səbəb olur. Bu isə öz növbəsində həmin sahələrdə daxili investisiya imkanlarını məhdudlaşdırır, dövlət büdcəsinə çatacaq vəsaitlərin itkisinə, maliyyə intizamının pozulmasına, müəssisələrin istehsal xərclərinin artmasına və digər çatışmamazlıqlara gətirib çıxarır.

Aparılmış təhlillər göstərir ki, kommunal xidmətlərinin hazırkı dövrə maya dəyəri və faktiki qüvvədə olan qiymətləri arasında kəskin fərqlər vardır. Belə ki:

Hazırda «Azərenerci» ASC üzrə 1 kvts elektrik enerjisinin topdansatış qiyməti 71,0 manatdır. İdxal qazının qiymətinin 2005-ci ildən etibarən 1000 m³ üçün 60 ABŞ dolları olduğu nəzərə alınmaqla aparılmış ilkin hesablamalara görə 1 kvts elektrik enerjisinin orta topdansatış qiyməti 5% rentabellik nəzərə alınmaqla 120-122 manat arası olacaqdır ki, bu da hazırda qüvvədə olan qiymətdən 69-72% arası yüksəkdir.

«Azərsu» SC-nin verdiyi məlumata əsasən 2004-cü il üçün 1 m³ suyun və çirkab suyun axıdılması xidmətlərinin maya dəyəri müvafiq olaraq 00,99AZM və 1,28 AZM-dir.

«Azəriqaz» QSC-nin 2004-cü il üçün Azərbaycan Respublikası Nazirlər Kabineti tərəfindən təsdiq edilmiş gəlir xərc smetasına əsasən 1000 m³ təbii qazın istehlakçılara çatdırılması üçün tədavül xərcləri 40,991 AZM həcmindədir.

İstilik enerjisi xidmətlərinin maya dəyəri ilə satış qiymətləri arasında da kəskin fərqlər mövcuddur. Ötən müddət ərzində istilik enerjisinin maya dəyərində mühüm təsir göstərən mazutun, təbii qazın, suyun, əmək haqqının, mal və materialların qiymətlərinin əhəmiyyətli dərəcədə artmasına baxmayaraq istilik enerjisinin tariflərində müvafiq dəyişiklik aparılmamışdır. Bakı şəhər İcra Hakimiyyəti Başçısının 22.07.99-cu il tarixli 621 sayılı sərəncamı ilə istehlakçı qrupları üzrə Bakı şəhəri üçün aylıq istilik enerjisi tarifləri aşağıdakı kimi müəyyən edilmişdir:

İstehlakçı qrupları	Ölçü vahidi	Qiyməti, manatla
Əhali	1m ² yaşayış sahəsi üçün	250
Büdcə təşkilatları	1m ² tikinti həcmi üçün	600
Təsərrüfat hesablı müəssisələr	1m ² tikinti həcmi üçün	1,100

Kommunal xidmətlərinin əhali üçün mövcud olan tariflərinin maya dəyərindən aşağı olması bu

xidmətlərin istehlakçılarının (elektrik və istilik enerjisi, qaz, su, kanalizasiya) hər il əhəmiyyətli dərəcədə subsidiyalaşdırılmasına gətirib çıxarır. Lakin bu subsidiyalar dolayı şəkildə həyata keçirildiyindən istismar və investisiyalar üçün tələb olunan minimum vəsaitlərin əldə edilməməsi baş verir ki, bu da kommunal müəssisələrinin vəziyyətinin daha da ağırlaşmasına, dövlət büdcəsinin real gəlirlərinin itirilməsinə və sosial müdafiə siyasətinin maliyyələşdirilməsinin çətinləşməsinə səbəb olur. Maliyyə vəsaitlərinin çatışmaması həm də mövcud infrastrukturun vəziyyətinin əhəmiyyətli dərəcədə pisləməsinə, sistemin dağılmasına və bununla əlaqədar olaraq kommunal xidmətlərin keyfiyyətinin azalmasına gətirib çıxarır.

Kommunal sektorun uzun müddət dayanıqlı vəziyyətdə olması və həyat qabiliyyətliliyi onların öz gəlirləri hesabına xərclərini ödəmək imkanlarının təmin edilməsindən asılıdır. Bu işə sahədə subsidiyaların ləğv edilməsi, tariflərin həmin müəssisələr tərəfindən çəkilən bütün xərcləri örtməsinə imkan verməsi, investisiya qoyuluşu üçün kifayət qədər vəsaiti təmin etməklə rentabelliyyə şərait yaratması yolu ilə mümkündür.

Hazırda həyata keçirilən tədbirlər

Elektrik enerjisi, təbii qaz, su, çirkab suları və istilik xidmətlərinin qiymətlərinin tənzimlənməsi, istehlakçıların aldığı xidmətlərin etibarlılığının və keyfiyyətinin yüksəldilməsi, onların hüquqlarının müdafiəsinin təmin edilməsi, beynəlxalq standartlara cavab verən institusional dəyişikliklərin və restrukturizasiya tədbirlərinin aparılması aktual məsələlər kimi qarşıda durur.

«Azərbaycan Respublikasının 2005-ci il dövlət büdcəsi haqqında» Azərbaycan Respublikası Qanununun tətbiq edilməsi barədə Azərbaycan Respublikası Prezidentinin 2004-cü il 29 dekabr tarixli Fərmanınının 6-cı bəndinin 3-cü yarımbəndi ilə enerji resurslarından səmərəli istifadənin təmin olunması, istehlakçıların enerji təchizatının etibarlılığının yüksəldilməsi və enerji sektorununun maliyyə durumunun yaxşılaşdırılması məqsədilə daha təkmil tarif sisteminin tətbiq olunmasına dair təkliflərin hazırlanması tapşırılmışdır.

Yoxsulluğu azaltmaq, cari və perspektiv problemlərin həllini təmin etmək proqramı çərçivəsində Hökumət iqtisadi islahatlara başlamışdır. İslahatlara kommunal xidmətlər sektorunu təkmilləşdirmək, bu sahədə özəl sektorun iştirakına şərait yaratmaq, kommunal xidmət sektorunda maliyyə intizamını artırmaq, xidmət keyfiyyətini yüksəltmək və səmərəli tənzimləyici hüquqi çərçivəni formalaşdırmaq daxildir. Göstərilənlərlə bağlı Azərbaycan Hökuməti Dünya Bankına Niyət Məktubu göndərmiş və öz prinsiplərini ortaya qoymuşdur. Məktubda kommunal xidmətlər üzrə islahatların məqsəd və prinsipləri, müvafiq qanunvericilik aktı layihəsinin parlamentə təqdim olunması, institusional mexanizmlərin inkişaf etdirilməsi üzrə Proqramın hazırlanması və təsdiqi üzrə niyyətlər bəyan edilmişdir.

Özəl sektorun iştirakı ilə infrastruktur xidmətlərinin təkmilləşdirilməsi və inkişaf etməkdə olan ölkələrə yardım məqsədi daşıyan çoxdonorlu texniki yardım müəssisəsi olan İctimai-Özəl İnfrastruktur Məsləhət Müəssisəsinin maliyyə dəstəyi əsasında «Neksant, İnk.» şirkəti elektrik enerjisi, təbii qaz və su sahəsində tənzimləyici hüquqi çərçivənin və institusional potensialın inkişaf etdirilməsi üçün Azərbaycan Hökumətinə məsləhətçi xidməti göstərmiş, sahədə institusional dəyişikliklərə, kommunal xidmətləri sahəsində yeni tənzimləyici agentliyin yaradılması və hüquqi çərçivənin dəyişdirilməsinə dair təkliflər hazırlamış, müvafiq təşkilatlara təqdim etmişdir.

Hazırda yaxın dövrü əhatə etməklə kommunal xidmətləri göstərən müəssisə və təşkilatlarda maliyyə intizamının, xidmət səviyyəsinin, eləcə də investisiya mənbələrinin yaranmasına imkan verən iqtisadi cəhətdən əsaslandırılmış tariflərə keçid mərhələlərini özündə cəmləşdirən orta müddətli tarif siyasətinin hazırlanması və reallaşdırılması zərurəti yaranmışdır.

Son illərdə, maaşların (minimum əmək haqqı daxil olmaqla) və pensiyaların qaldırılması əhalinin kommunal xidmətlərin daha yüksək qiymətlərini ödəmək qabiliyyətini artırsa da hazırkı şərait əhaliyə göstərilən kommunal xidmətlərin qiymətinin münasib olmasını tələb edir. İqtisadi inkişaf, əhalinin alıcılıq qabiliyyətinin artması isə daha yüksək tariflərin ödənilməsinə imkan yaradacaqdır. Bununla yanaşı, ünvanlı sosial yardım sisteminin hazırlanması və həyata keçirilməsi, eləcə də sayğacların quraşdırılması şərtilə müvafiq tarif siyasətinin həyata keçirilməsi imkanları mövcuddur. Ünvanlı sosial təminat sisteminin yaradılması tariflərin xərcləri ödəməsi səviyyəsinə qədər artırıldığı halda aztəminatlı əhalinin kommunal xidmətlərin dəyərini ödəmək imkanını artırır.

Bu mülahizələri nəzərə alaraq, hökumət təbii qazın və suyun qiymətlərinin artırılması ilə bu istiqamətdə ilk addımları atmışdır.

Təbii qazın yeni qiyməti müəyyənləşdirilərkən qiymətin kəskin şəkildə artmasına yol verməmək məqsədilə «Azəriqaz» QSC-nin tədavül xərcləri 1000 m³ üçün 30000 AZM səviyyəsində qəbul edilmişdir. Təbii qazın hasilat, emal və tədavül üzrə cari xərcləri nəzərə alınmaqla maya dəyəri isə 140 000-150 000 AZM arasındadır. Aşağıda 1000 m³ təbii qaz üçün qiymətlərdəki dəyişiklik müqayisəli şəkildə verilir:

2 Noyabr 2004-cü il tarixdən qüvvəyə minmiş Artırılmış Qaz Tarifləri
hər 1000 m³ üçün AZM

İstehlakçı qruplarının adı	Köhnə tarif, manatla	Təsdiq edilmiş yeni tarif, manatla (ƏDV ilə birlikdə)
Əhali	35,560	81,000
Digər (Büdcə, dövlət müəssisələri, kommersiya və s.) təşkilatlar	83,200	236,000
	106,103	
	194,700	
	236,000	
Rusiyadan idxal edilən qaz üçün	-	270,000

Yeni qiymətlər «Azəriqaz» SC-nin maliyyə təsərrüfat fəaliyyətinin yaxşılaşmasına, ayrılan subsidiyaların aradan qalxmasına gətirib çıxaracaqdır.

2005-ci il yanvarın 1-dən hökumət suyun qiymətlərinə baxaraq keçmiş ARSSC ərazisi olmaqla «Azərsu» SC üçün yeni tariflər müəyyən etmişdir. 1m³ suyun yeni və köhnə qiymətlərinin müqayisəsi aşağıda verilir.

İstehlakçı qrupların adı	Köhnə (ƏDV-siz)	yeni (ƏDV-siz)
<i>İçməli su</i>		
Əhali	185	370
Büdcə və ona bərabər tutulan digər təşkilatlar	900	1,200
Sudan xammal kimi istifadə edənlər	42,000	42,000
Digər sahələr (istehsal, ticarət, xidmət, kommersiya və s.)	5,300	2,700
	2,500	
<i>Texniki su</i>	1,200	1,200

Yeni tarifdə «Ticarət və digər xidmət sahələri» və «Mülkiyyət formasından asılı olmayaraq bütün istehsalçılar» qrupu «Digər sahələr (istehsal, ticarət, xidmət, kommersiya və s.)» qrupu şəklində birləşdirilmişdir. Su tariflərinin sonrakı artımı «Azərsu» SC-nin fəaliyyətinin nəticələrindəki inkişafdan və elektrik enerjisi tariflərinin tənzimlənməsi formasından asılı olacaqdır.

Bununla yanaşı dövlət istehlakçılara verilən elektrik enerjisinin, təbii qazın və suyun həcminin dəqiq ölçülməsinin zəruriliyini və bu məsələnin tarif islahatları üçün mühüm mərhələ olduğunu da qəbul edir. Hazırda bütün qaz, su və elektrik enerjisi istehlakçılarının sayğaclarla təmin olunmasına yönəlmiş programın qəbulu və icrası üçün tədbirlər həyata keçirilməkdədir.

Belə ki, bu işin sürətləndirilməsi və başa çatdırılması müddəti ilə bağlı konkret tapşırıqlar verilmişdir: (i) «Azərbaycan Respublikasının 2005-ci il dövlət büdcəsi haqqında» Azərbaycan Respublikası Qanununun tətbiq edilməsi barədə Azərbaycan Respublikası Prezidentinin 2004-cü il 29 dekabr tarixli Fərmanının 17-ci bəndi ilə su, qaz, elektrik enerjisi xidmətləri üzrə tələb olunan sayğacların quraşdırılması xərcləri üzrə təkliflərin hazırlanması, və (ii) Azərbaycan Respublikası Nazirlər Kabinetinin 2005-ci il 10 yanvar tarixli, 8 №-li və 2005-ci il 12 yanvar tarixli, 13 №-li Sərəncamları ilə işə müvafiq qurumlara qaz və elektrik sayğaclarının quraşdırılması.

Orta müddətli tarif siyasəti və nəzərdə tutulan tədbirlər

2005-2010-cu illər ortamüddətli tarif siyasətinin həyata keçirilməsi dövrü kimi qəbul edilməklə aşağıda göstərilən problemlərin həlli nəzərdə tutulur:

- bu sənəddə göstərilən problemlər nəzərə alınmaqla orta müddətli tarif siyasətinin həyata keçirilməsi.
- orta müddətli tarif siyasəti dövrünün sonuna qədər kommunal xidmətlərin tariflərini mərhələlərlə və tariflərin münasibliyinin diqqət mərkəzində saxlamaqla artırılması.
- müxtəlif kommunal xidməti növlərinin maya dəyəri arasında olan əlaqənin nəzərə alınması (Məsələn: su təchizatı və kanalizasiya xidmətlərinin maya dəyəri əhəmiyyətli dərəcədə elektrik enerjisinin qiymətinin təsiri altında formalaşması nəzərə alınaraq elektrik enerjisinin qiymətinin artırılması ilə yanaşı su və kanalizasiya xidmətlərinin tariflərinin də artırılması).

- dövlət büdcəsindən kommunal müəssisələrə maliyyə yardımının dayandırılması.
- kommunal müəssisələrinin maliyyə baxımından həyat qabiliyyətliliyinin təmin edilməsi və tariflərin maya dəyərini tam örtəcək səviyyəyə qaldırılması;
- tariflər üzrə problemlərin həlli baxımından bu sahədə fəalliyət göstərən ayrı-ayrı müəssisə və təşkilatların resturuktrisasiyası, korporativ idarəetmənin təkmilləşdirilməsi, xidmətin keyfiyyətinin yüksəldilməsi, itkilərin azaldılması, istehlaka qənaətin stimullaşdırılması;
- bu sahədə islahatlardan uğurlu nəticə əldə etmiş ölkələrin təcrübəsi əsasında aztəminatlı ailələrə ünvanlı yardım mexanizminin təşkili və tariflərin artırılmasının mənfi təsirlərinin aradan qaldırılması üçün bu mexanizmdən istifadə edilməsi;
- ünvanlı yardım mexanizminin tətbiqi şərti ilə 2006-cı ilin yanvar ayından etibarən elektrik enerjisinin tariflərinə baxılması. O cümlədən:
 - «Azərenerji» SC-nin topdansaş qiyəti və ötürmə tariflərinin tənzimlənməsi;
 - «Barmek Azərbaycan Elektrik Şəbəkəsi» MMC və «BAYVA» MMC üzrə pərakəndə satış qiyətinin tənzimlənməsi;
 - İstilik enerjisinin tariflərinin tənzimlənməsi.
- İqtisadi cəhətdən əsaslandırılmaq və maya dəyərinə müvafiq olmaqla aşağıdakı sahələrdə tariflərə yenidən baxılması işlərinin həyata keçirilməsi:
 - içməli suyun qiyətlərinin tənzimlənməsi (rayonlar üzrə);
 - çirkab suyun axıdılması xidmətlərinin qiyətlərinin tənzimlənməsi (rayonlar üzrə).

Əlavə 1-ə Qoşma 2: Ölkənin və Sektorun ümumi Təsviri
Azərbaycan: Elektrik Ötürücü Sistemi Layihəsi

Elektrik Enerjisinin Yük Proqnozu¹⁰ (1000 MVt)

Ümumi İstehlak	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bazis Hal		24,921	25,926	26,294	26,668	27,047	27,431	27,821	28,272	28,729	29,194	29,667	30,147	30,506	30,869	31,236	31,607	31,983
% Artım	23,956	4.0%	4.0%	1.4%	1.4%	1.4%	1.4%	1.4%	1.6%	1.6%	1.6%	1.6%	1.6%	1.2%	1.2%	1.2%	1.2%	1.2%
Yüksək Hal		26,444	28,338	29,425	30,553	31,725	32,941	34,205	35,594	37,040	38,545	40,110	41,740	43,258	44,832	46,463	48,153	49,905
% Artım	24,677	7.2%	7.2%	3.8%	3.8%	3.8%	3.8%	3.8%	4.1%	4.1%	4.1%	4.1%	4.1%	3.6%	3.6%	3.6%	3.6%	3.6%
Aılçaq Hal		24,332	25,011	25,121	25,232	25,343	25,455	25,567	25,733	25,899	26,067	26,235	26,405	26,460	26,515	26,570	26,625	26,680
% Artım	23,671	2.8%	2.8%	0.4%	0.4%	0.4%	0.4%	0.4%	0.6%	0.6%	0.6%	0.6%	0.6%	0.2%	0.2%	0.2%	0.2%	0.2%

Pik Tələbat Proqnozu (MVt)

Ümumi Talabat	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bazis Hal	4,375	4,499	4,625	4,635	4,644	4,652	4,660	4,669	4,744	4,820	4,898	4,978	5,058	5,119	5,180	5,242	5,303	5,366
% Artım		2.8%	2.8%	0.2%	0.2%	0.2%	0.2%	0.2%	1.6%	1.6%	1.6%	1.6%	1.6%	1.2%	1.2%	1.2%	1.2%	1.2%
Yüksək Hal	4,507	4,775	5,056	5,187	5,321	5,458	5,597	5,739	5,972	6,215	6,468	6,730	7,003	7,258	7,522	7,796	8,080	8,373
% Artım		5.9%	5.9%	2.6%	2.6%	2.6%	2.5%	2.5%	4.1%	4.1%	4.1%	4.1%	4.1%	3.6%	3.6%	3.6%	3.6%	3.6%
Aılçaq Hal	4,323	4,444	4,568	4,588	4,609	4,629	4,649	4,670	4,700	4,731	4,761	4,792	4,823	4,833	4,843	4,853	4,863	4,873
% Artım		2.8%	2.8%	0.4%	0.5%	0.4%	0.4%	0.5%	0.6%	0.7%	0.6%	0.7%	0.6%	0.2%	0.2%	0.2%	0.2%	0.2%

¹⁰ Elektrik enerjisinin Yük və Tələbat Proqnozu "Burns & Roe" hesabatından: Elektrik Stansiyalarına və Ötürücü sistemin İnvestisiya Tələbləri üçün Prioritetlərin Təyini, Noyabr, 2003

Əlavə 2: Bank və digər Agentliklər tərəfindən Maliyyələşdirilən Əsas Layihələr
AZƏRBAYCAN: ELEKTRİK ÖTÜRÜCÜ SİSTEMİ LAYİHƏSİ

Sektorun problemləri	Layihənin adı	Son İdarəetmə (Forma 590) Reytingləri (ancaq Bankın maliyyələş. layihələr)	
		İcra Vəziyyəti (İV)	İnkişafın Məqsədi (İM)
Bankın maliyyələşdirdiyi			
Enerji Sektorun Restrukturlaşdırılması	Enerji Sektorun Resrukturlaşdır. üçün PPIAF –in Dəstəyi	na	na
Qaz Sektorunun Restrukturlaşdırılması	Qaz Sektorun Resrukturlaşdır. üçün PPIAF –in Dəstəyi	na	na
Sosial Müdafiə Sistemində İslahatlar	İkinci İnstitutun Yaradılması Texniki Yardım (2002, 7.47 mln.ŞMV)	S	S
Qaz İnfrastrukturunun Bərpaası	Qaz Sisteminin Bərpaası Layihəsi (2002, 14.1 mln. ŞMV)	S	U
Enerji Sektorun Restrukturlaş-ması	SAC II (2002, 48.4 mln. ŞMV)	S	S
Müstəqil Tənzimləmə	<u>YASK-1 (2005, 13.1 mil. ŞMV)</u> Enerji, Qaz və Su sektorunda İnstitusional Gücləndirmə və Tənzimləmə Strukturuna PPIAF-in Dəstəyi (2003-04)	na	na
Pensiya və sosial Yardım Sahəsində Effektivliyin və Şəffaflığın Yüksəldilməsi	Pensiya və Sosial Yardım Layihəsi (2004, ekv. 10 mln.ABD)	S	S
Digər agentliklər			
AYİB (EBRD)	Yenikənd SES-in Bərpaası (1994, 42 mln.Avro)		
AYİB (EBRD)	Mingəçevir SES-in Bərpaası (1997, 17 mln.Avro)		
YBƏB (JBIC)	Şimal DRES-in Bərpaası (1998, 20.2 milyard Yapon yeni)		
KfW	Yarımstansiyaların Bərpaası Layihəsi (1998, 12 mln.Avro)		
KfW	Yarımstansiyaların İkinci Bərpa Layihəsi (2003, 12 mln.Avro)		
USAID	Tənzimləmə Vahidlərinə Texniki Yardım		

Əlavə 3: Nəticələrin Strukturu və Monitoring
AZƏRBAYCAN: Elektrik Ötürücü Sistemi Layihəsi

Nəticələrin Strukturu

Layihənin Məqsədi	Nəticələrin Göstəriciləri	Nəticə üzrə Məlumatdan İstifadə
<p>Generasiya/ötürücü vahidlərin institusional və texniki cəhətdən gücləndirilməsi yolu ilə Azərbaycanda elektrik enerjisinin ötürülməsi üzrə görülən əməliyyatların effektivliyinin artırılması.</p> <p>İkinci məqsəd: Azərenerjinin maliyyə vəziyyətinin gücləndirilməsinə yardım göstərmək.</p>	<p>İqtisadi cəhətdən səmərəli və ötürmə zamanı yaranan itkilərin azaldılması yolu ilə istehsal olunan hər kVts. elektrik enerjisinə yanacaqın istifadə edilməsinin effektivliyi yüksəlmişdir.</p> <p>Məcburi açılmaların tezliyinin və sürəkliliyinin azalması ilə əlaqədar, elektrik enerjisi ilə təchizatın etibarlılığı və keyfiyyəti yüksəlmişdir.</p> <p>Hüquqi razılaşmalara müvafiq olaraq, (a) tariflərin çəkilən xərcləri ödəmək səviyyəsinə çatdırılması, və (b) elektrik enerjisi üzrə yığım faizləri artması ilə Azərenerjinin maliyyə vəziyyəti güclənir (yəni, Hökumətin maliyyə yardımlarına tələbat azalır/və ya tamam kəsilir).</p>	<p>Hər kVts elektrik enerjisinin istehsalında yanacağın yüksək dərəcədə istifadə olunmasının davam etdirilməsi belə nəticənin yaranmasına gətirib çıxara bilər ki, paylanma digər mülahizələrin xeyrinə iqtisadi qaydalara məhəl qoyulmadan aparılır və bu zaman məsələlərin həllinə institusional kontekstdə müraciət etmək ehtiyacları yaranır. Alternativ variantda bu, ötürücü sistemin gücünün artırılması üçün əlavə investisiyalara ehtiyacın yarandığına bir işarə ola bilər.</p> <p>Xətt qəzaları ilə əlaqədar məcburi açılmaların davam etməsi, sistemdə mövcud olan böhranlı problemlərin aşkar olunmasına kömək edə bilər, bu da öz növbəsində ötürücü sistem üçün əlavə investisiyaların yatırılmasına işarədir.</p> <p>Yığım üzrə kiçik faizlər (paylayıcılarla bağlanmış müqavilələrə əsasən) müvafiq məcburetmə mexanizmlərini işə salmalıdır. Bu (a) paylayıcı şirkətlərin öz müqavilə öhdəliklərinə əməl etməsinə əminlik yaradacaq və (b) Azərenerjiyə, hələki həll olunmayan maliyyə üzrə ehtiyaclarını qarşılamaq üçün maliyyə yardımlarını artırmağa imkan verəcəkdir.</p> <p>Razılaşdırılmış plana əsasən tarif artımlarında geriləmələr Hökumət ilə Bank arasında dialoqun yaranmasına işarə verəcəkdir və əgər lazım gələrsə, hüquqi razılaşmalar əsasında Bankın əldə edə biləcəyi vəsaitlərin istifadəsi üçün lazımı mexanizm işə salına bilər.</p>

Hər bir komponent üzrə Aralıq Nəticə	Hər bir komponent üçün Nəticələrin Göstəriciləri	Nəticələrin Monitorinqindən İstifadə
<p>Birinci Komponent: SCADA və tele-rabitə</p> <p>Azərbaycanda elektrik enerjisinin dəyərinin azaldılması və keyfiyyətinin yüksəldilməsi.</p>	<p>Birinci Komponent: Hər kVts elektrik enerjisinin istehsalı üçün yanacaqın xüsusi sərfi 1.5% həcmində azalacaqdır</p> <p>Sistemdə gərginlik və tezlik təyin edilmiş diapazonda saxlanacaqdır (topdansaş nöqtələrdə gərginlik nominaldan +5%, -10% arasındakı həddə; tezlik isə 50 Hz ± 0.5 Hz həddində).</p> <p>Ötürmə zamanı yaranan itkilər müvafiq yanacaq üzrə qənaətlərlə birgə, 5%-dən 4.5%-dən çox olmamaq şərti ilə azalacaqdır.</p>	<p>Birinci Komponent: Yanacağın istifadəsində ilkin qənaətlərin və təchizatın keyfiyyətinin əldə olunmaması belə nəticəyə gətirib çıxarır ki, SCADA sistemindən düzgün istifadə olunmur və əlavə təlimə ehtiyac vardır.</p> <p>Ötürmə zamanı itkilərin aradan qaldırılması ilə əlaqədar yaxşı olmayan göstəricilər qeyri-texniki itkilərin mövcud olduğunu şərtləndirir. Bu itkilər aşkarlanmalı və aradan qaldırılmalıdır.</p>
<p>İkinci Komponent: Ötürücü Sistemin Bərpa</p> <p>Məcburi açılmaların azaldılması.</p>	<p>İkinci Komponent:</p> <p>Bərpa edilmiş ötürücü xətlərdə məcburi açılmalar əhəmiyyətli dərəcədə azalır.</p> <p>Sistemdə ümumi açılmaların sayının azalması.</p>	<p>İkinci Komponent: Əgər bərpa olunmuş xətlərdə qəzaların baş verməsi yenidən davam edərsə, bu bərpa işlərin spesifikasiyalara uyğun görülmədiyini bildirir və işləri yerinə yetirən komandanın fəaliyyətinin hərtərəfli yoxlanılmasına ehtiyac vardır.</p>
<p>Üçüncü Komponent: Texniki Yardım və Təlim</p> <p>Azərenerji sistemində texniki və maliyyə amaliyyatlarının yüksəldilməsi</p>	<p>Üçüncü Komponent:</p> <p>Layihələr vaxtında icra edilmişlər.</p> <p>Azərenerjinin heyəti kənar kömək olmadan SCADA sisteminin idarəetmə bacarığına malik olduğuna əmindir.</p> <p>Şəbəkə Nizamnaməsi hazırlanıb və qəbul edilib.</p> <p>Azərenerjinin kvalifikasiyalı işçi heyəti var və IFRS standartlarına əsasən səriştəli hesabatlar verir.</p>	<p>Üçüncü Komponent: Layihə komponentlərinin icrasında geriləmələrin yaranması yerinə yetirilmə üzrə əlavə yardımın göstərilməsi deməkdir.</p> <p>Dispetçer heyəti tərəfindən SCADA sistemini istifadə olunması ilə əlaqədar davam edən göstərilən qətiyyətsizlik, əlavə təlimlərə ehtiyacın yarandığı mənasını verir.</p> <p>Şəbəkə Nizamnaməsinin hazırlanması və qəbul edilməsi ilə əlaqədar geriləmələrin yaranması, onun məqsədi və ya şəbəkəyə girişin əldə olunması konsepsiyasına daha fundamental müqavimətin mövcudluğuna işarədir.</p> <p>Əgər Azərenerji mühasibat uçotun paralel aparılması dövründə yenə də çoxlu sayda səhvlər edirsə, onda, genişləndirilmiş və intensivləşdirilmiş təlimlərə ehtiyac vardır və onların keçirilməsinə zəmanət verilə bilər.</p>

Nəticələrin Monitorinqi üçün tədbirlər

Hər bir komponent üçün Nəticələrin Göstəriciləri	Başlanğıc	2005	2006	2007	2008	2009	2010	Təkrarlanma və Hesabatlar	Məlumatın Toplanması Sənədləri	Məlumat Toplanmasına Məsuliyyət
Birinci Komponent : SCADA və Tele-Rabitə <ul style="list-style-type: none"> İstahsal edilən bir kVts enerjiyə yanacaqın xüsusi sərfi (qr/kVts) Ötürmə zamanı itkilər. Sistemdəki topdansaş nöqtələrində gərginlik Topdansaş nöqtələrində tezliyin dəyişməsi 	*	*				-0.5%	-1.5% -0.5% +5%/-10% Nominal gərginlik 50 Hz ± 0.5 Hz	Gündəlik; illik hesabatlar	Azərenerjinin statistik göstəriciləri; əl ilə, sonradan SCADA sistemindən istifadə etməklə.	Azərenerji
İkinci Komponent : Ötürücü Sistemin Bərpası <ul style="list-style-type: none"> Ötürücü Sistemdə məcburi açılmalar (əsas hadisələr/il) Açılmalar üzündən itirilmiş güc (MVts/il) 	*	*						Gündəlik; illik hesabatlar	Azərenerjinin statistik göstəriciləri; əl ilə, sonradan SCADA sistemindən istifadə etməklə.	Azərenerji
Üçüncü Komponent : Texniki Yardım və Təlim <ul style="list-style-type: none"> İcranın gedişatı. Azərenerji heyətinə nisbətə dispetcher fəaliyyətinin faizi Şəbəkə Nizamnaməsi hazırlanıb və qəbul edilib. Azərenerji BMS-ə (IAS) əsaslanan mühəsibat uçotu aparır 	Layihə 2005-də başlayır. SCADA sistemi yoxdur. Keçmiş sovetlər ittifaqının vaxtı keçmiş sənədi. Hesablar dəyişdirilməmişlər.	-	10%	50%	90%	100%		Layihənin gedişatı barədə Rüblük Hesabat; layihənin yerinə yetirilməsinin gedişatı üzrə illik Maliyyənin İdarəolunması Hesabatı	Layihənin gedişatı barədə Rüblük Hesabat; layihənin yerinə yetirilməsinin gedişatı üzrə illik Maliyyənin İdarəolunması Hesabatı (FMR)	Azərenerji
<ul style="list-style-type: none"> (a) Tariflər – çəkilən istehsal xərclərinin ödənilməsi faizi 	64%**						100%	Layihənin gedişatı barədə Rüblük Hesabat	Layihənin gedişatı barədə Rüblük Hesabat	Azərenerji

Hər bir komponent üçün Nəticələrin Göstəriciləri	Başlanğıc	2005	2006	2007	2008	2009	2010	Təkrarlanma və Hesabatlar	Məlumatın Toplanması Sənədləri	Məlumat Toplanmasına Məsuliyyət
• (b) Paylayıcı şirkətlərdən vaxtında verilən ödənişlər***	50% (2004)	58%	68%	71%	82%	90%	100%	Layihənin gedişatı barədə Rüblik Hesabat (ilin ortası və sonu)		Azərenerji
• (c) Azərenerjiyə maliyyə yardımı	400 milyon ABD****						Nil	Layihənin gedişatı barədə Rüblik Hesabat (1-ci rüb)		

*) Bazis məlumatlar razılaşdırılmış plana əsasən 2005-ci il ərzində toplanacaqdır

***) Qiymətləndirmə

****) Proqnoz paylayıcı şirkətlərlə müqavilələrə və qiymətləndirilmiş həcmələrə əsaslanır

*****) 2004-cü ilin ilkin maliyyə nəticələrinə əsaslanır

Əlavə 4: Layihənin Təfəsilatlı Təsviri
Azərbaycan: Elektrik Ötürücü sistemi Layihəsi

1. Layihənin İcmalı

Təklif olunan layihənin dörd əsas komponenti vardır, onlardan:

Komponent A: Enerji sektorun İdarəedilməsi

Komponent Azərbaycanın dispetçer sisteminin təkmilləşdirilməsini təmin edir və aşağıdakı subkomponentləri daxil edir:

- *SCADA/EMS sisteminin quraşdırılması.* Bu subkomponentə lazımi kompyuter avadanlığının və proqram təminatının quraşdırılması ilə real vaxt rejimində elektrik stansiyalarından və YG ötürücü yarımstansiyalardan əməliyyat məlumatlarının toplanması, Milli Dispetçer Mərkəzində sistemin vəziyyətinin analizi və monitorinqinin aparılması, elektrik stansiyalarının və YG ötürücü sistemin dispetçer idarəedilməsi, etibarlı, təhlükəsiz və iqtisadi cəhətdən səmərəli əməliyyatların aparılması, enerji üzrə gələcək topdansatış bazarda maliyyə nizamlanmasını yüngülləşdirməsi üzrə işlər daxildir. Sistemin əsas elementlərinə daxildir: Milli Dispetçer Mərkəzində (MDM) İnformasiya Araşdırma və Enerji Nəzarət Sistemi (SCADA) və Avtomatik İdarəetmə Sistemi (EMS), Bakıda Ehtiyat İdarəetmə Mərkəzi (EİM), və elektrik stansiyalarında və YG yarımstansiyalarda Uzaq Terminal Qurğuları (UTQ). KfW tərəfindən maliyyələşdirilən SCADA sisteminin elementləri bütöv SCADA/EMS sisteminə birləşdiriləcəkdir.
- *Tele-rabitə sisteminin təkmilləşdirilməsi.* Bu subkomponentə dispetçer, ölçü və YG sistemdə görülən əməliyyatlarda və texniki xidmətin tələblərinə cavab verən vacib rabitə avadanlıqlarının – fiber optik kabel sistemləri, yüksək tezlikli rabitə xətləri sistemləri (PLC), telefon rabitə sistemlərinin quraşdırılması daxildir. Bura həmçinin, Azərbaycanın əsas ofisləri ilə elektrik stansiyalar arasında inzibati və maliyyə idarəetməsinin yüksəldilməsini təmin edən vasitələr daxildir.
- *Stansya üzrə uyğunlaşdırma və ölçü.* Bu subkomponentə idarəetmə və ölçü dövrəsini, sistemdə həyacan, onun vəziyyəti və ölçü ilə əlaqədar göstəricilərin UTQ-ə (RTUs) giriş və çıxışını təmin edən avadanlıqların stansiya üzrə adaptasiyası işlərini əhatə edir. Belə ki bu, Azərbaycanın istahsal və ötürücü sistemində quraşdırılan ilk SCADA sistemidir və onun əsas stansiyalarının və avadanlıqlarının çox köhnə olması səbəbindən, stansiya idarəetmə dövrəsinə ardıcıl hadisələrin qeydini aparan, işdə pozulmaların analizini edən və SCADA/EMS sistemi üzrə yüklərin real vaxt rejimində paylanması imkanlarını verməklə bərabər, əsas monitorinqi və SCADA funksiyalarının uzaqdan idarə edilməsini yerinə yetirən UTQ-ə girişi təmin edən avadanlıqların və onun modifikasiyalarının layihələndirilməsi və quraşdırılması çox uzun və çətin tapşırıq olacaqdır. Bura həmçinin, dəqiq nəzarəti həyata keçirmək, enerji satışlarını və idxal/ixrac müqavilələrini nizamlama imkanları əldə etmək üçün ümumi enerji sistemə bütün birləşmə nöqtələrində, bura elektrik stansiyalarından, qonşu ölkələrin sistemləri ilə YG birləşmələrində və özəlləşdirilmiş paylayıcı şəbəkələrin təchiz edildiyi hər bir 110 kV-luq və ondan aşağı

gərginlikli nöqtələrdə mövcud olan və yeni enerji sayğaclarına uzaqdan giriş imkanı verən vasitələrin quraşdırılması daxildir.

- Səmərəli istismarı yerinə yetirmək üçün istilik elektrik stansiyalarının hər bir enerji bloku yanacaq sayğacları ilə təmin ediləcəkdir.

Hər bir modifikasiyanın layihələndirilməsi, quraşdırılması və yoxlanılması üzrə stansiya adaptasiya işləri Azərenerjinin LİQ-ə (PIU) daxil edilmiş mühəndisləri və texniki xidmət heyəti tərəfindən yerinə yetirilməlidir. Bu işlərə cəlb edilmiş Azərenerjinin heyətinin mövcud mühafizə və idarəetmə sistemləri ilə işləmə təcrübəsi və bu tapşırıqların yerinə yetirilməsi ilə əlaqədar, hər bir yarımstansiyanın və elektrik stansiyasının mühəndislərindən və texniki heyətindən müvafiq yardımın alınması səlahiyyəti olmalıdır. *UTQ-lərin birləşdirilməsinə və SCADA sisteminin istifadəyə verilməsinə qədər cəlb olunan işlərin çoxluğu və ehtiyacları səbəbindən Azərenerji stansiya adaptasiya işlərinə dərhal başlamalıdır. bu işlərin yerinə yetirilməsində geriləmələr, ən ümumi halda, SCADA/EMS layihələrinin yekunlaşdırılmasında geriləmələrə səbəb olacaqdır.*

Komponent B: Ötürücü Sistemin Bərpası

Bu komponent yüksək gərginlikli xətlərdə vacib elementlərin tez bir zamanda əvəz edilməsi və təmiri və seçilmiş YG yarımstansiyalarda bərpa işlərini əhatə edir. Azərenerji tərəfindən ilkin təklif olunmuş subkomponentlərə daxildir:

- Bir 500 kV-luq və iki 330 kV-luq ötürücü xətlərin təmiri;
- Sıradan çıxmış naqillərin yüksək keyfiyyətli naqillərlə əvəzlənməsi və 220 kV-luq səkkiz xətdə farfor izolyatorların şüşə izolyatorlar ilə əvəzlənməsi;
- 110 kV-luq üç xətdə dayaqların və naqillərin əvəzlənməsi; və
- 330 kV-luq bir, 220 kV-luq bir və 110 kV-luq iki yarımstansiyada yeddi ədəd transformatorların daha yüksək gücə malik olanlarla əvəzlənməsi və 330 kV-luq yarımstansiyada transformatorun əlavə edilməsi, və digər üç yarımstansiyada müxtəlif enerji sistemi aparatlarının əvəzlənməsi.

C Komponenti altında keçirilən sistemin inkişafının planının öyrənilməsi və rele mühafizə qoyuluşlarının analizi gərginliyin tənzimlənməsi, reaktiv güc təchizatı və sistemin dayanıqlığını üzrə yüksək prioritetli, ən az xərc üzrə veriləcək qərarları təyin edə bilər. Əgər bu məsələlər layihənin hazırlanması zamanı təyin olunmuş komponentlərdən daha yüksək prioritetə malik olarsa, onlar Kredit, və ya da digər əldə oluna bilən fondlar vasitəsi ilə maliyyələşdirilə bilər. Ötürücü sistemin bərpası üçün lazım olan maliyyə fondları dispetçer sistemin üzrə müqavilənin dəyəri təyin olunduqdan və müqavilə imzalandıqdan sonra məlum olacaqdır.

Komponent C: İdarəetməyə Yardım

Bu komponent aşağıdakı hallar üçün texniki köməyi nəzərdə tutur:

- Azərenerjinin Beynəlxalq Maliyyə Hesabatı Standartlarına (IFRS) keçid
- İntegrə edilmiş Məlumat İdarəetmə Sistemini (IMIS)
- Aktivlərin Yenidən Qiymətləndirilməsi
- Baxılmış Şəbəkə Nizamnaməsinin hazırlanması

- Ötürmənin qiymətləndirilməsi
- Ötürücü Sistemin Tədqiqatı
- Şirkətin və layihənin auditləri
- Dispetçer Sisteminin Satın alınması (layihənin hazırlanması dövründə başlanmışdır)
- Layihənin İdarəedilməsi və Texniki Yardım
 - a. Layihənin idarəedilməsi
 - b. Satınalmalara yardım
 - c. Texniki Mütəxəssis köməyi
 - d. Ətraf mühitin idarəedilməsi
- Dispetçer Təlimi

Bu komponentin məqsədlərindən biri, Azərenerjiyə yeni Mühəsibat haqqında Qanununun və 2008-ci ilin yanvar ayının 1-dən gec olmayaraq şirkətin keçəcəyi Beynəlxal Maliyyə Hesabatı Standartlarının (IFRS) tələblərə cavab verən əsaslı mühəsibat sisteminin yaradılmasına kömək etməkdir. Şirkətin idarəedilməsini əhəmiyyətli dərəcədə artırmaq üçün yeni maliyyə sistemi Baş Kitab, Ödəniş üçün Hesablar, Əsas Fondların İdarəedilməsi, Materialların İdarəedilməsi, Heyyət və Ödəniş Cədvəli və Hesabatların Generatoru funksional modulları olan (lakin bununla məhdudlaşmayan) İntegrə edilmiş Məlumat İdarəetmə Sisteminin əsas komponentlərindən biri olacaqdır. Bu komponent altında Aktivlərin Yenidən Qiymətləndirilməsi auditorlar üçün BMHS (IFRS) əsasında audit müqavilələrinin bağlanması üçün ilkin şərt olacaqdır.

Texniki Yardım (TA) baxılmış Şəbəkə Nizamnaməsinin və ayrılmış enerji ötürücü tarifi əsasında ötürmənin qiymətləndirilməsinin hazırlanması işləri daxil olmaqla, Azərenerjini gələcək restrukturizə olunmuş enerji sektora hazırlanmasını təmin etməlidir.

Ötürücü Sistemin Tədqiqatı rele mühafizə qoyuluşları üzrə işlərin və ötürücü şəbəkənin inkişafı planının hazırlanması ilə bərabər sistemin dayanıqlığına yönələn problemlərin öyrənilməsi özündə əks etdirir. Tədqiqat, sub komponentlərdən çoxunun "çox vacib" kimi xarakterizə edildiyinə baxmayaraq, bu layihə altında maliyyələşdirilən sistemin bərpası üzrə sub komponentlərin prioritetlərinin təyin olunmasına təsir edən yüksək əhəmiyyətli bərpa işlərini və investisiyaları göstərə bilər.

Komponent D: Layihənin İcrası

Bu komponent xüsusi olaraq bu layihənin yerinə yetirilməsi ilə əlaqədar Azərenerji tərəfindən yaradılan Layihənin İcra Qrupunun qurulması və fəaliyyət göstərməsi ilə əlaqədar əlavə xərcləri daxil edir. Kredit tərəfindən maliyyələşdirilən bölmələrə daxildir: ofis mebeli və avadanlıq; ofisin artan əməliyyat xərcləri; mühəsibat və ofis üzrə proqram təminatı; tərceməçilik; layihə ilə əlaqədar gürüşlərin keçirilməsi, təlimlərdə və zavod sınaqlarında iştirak etmək üçün LİQ-in (PIU) üzvlərinin xarici səfərlərinin xərcləri.

Azərenerji bu layihəni, ekoloji problemlərin ümumi imkanlarını artırmaq üçün istifadə etmək istəməmişdir. Ətraf Mühit üzrə TY (TA) layihənin Azərbaycanın və Dünya Bankının ekoloji standartlarına uyğun hazırlandığına əmin olmaq üçün tələb olunduğu kimi göstəriləcəkdir.

2. Texniki İnteraksiyaların Detalları

Sonrakı seksiyalar A və B Komponentlərinə daxil edilən bölmələrli əlavə detallarla təmin edir.

2.1 Dispetçer Sistemi

Enerji istehsal və YG ötürücü sistemdə texniki cəhətdən qənaətbəxş əməliyyatlar elektrik enerjisinin elektrik stansiyalarından istehlakçıları təmin edən paylayıcı şəbəkələrə fasiləsiz, etibarlı və effektiv çatdırılması kimi başa düşülür. Buna nail olmaq üçün istehsal və ötürücü sistemin adekvat ötürücü xətlərə və yarımstansiyalarla malik olması ilə bərabər, mürəkkəb YG ötürücü sistemdə əməliyyatların planlaşdırmasına, onu idarəedilməsinə və ona nəzarətin təşkil edilməsinə nail olmaq lazımdır. Cəlb olunan proseslərin təbiətini nəzərə alaraq, sistem üzrə əməliyyatlar real vaxt rejimində idarə olunmalı və ona nəzarət olunmalıdır. Bu, coğrafi cəhətdən səpələnmiş qurğulardan (elektrik stansiyaları və YG yarımstansiyalar) davamlı olaraq məlumatların toplanmasını və bu informasiyanın Milli Dispetçer Mərkəzinə və dispetçer idarəetmə komandalınının (avtomatik və ya qurğunu istismar edən personal vasitəsilə) baş vermiş hadisə aradan qaldırılması üçün yerlərə ötürülməsini tələb edir. Bu məqsəd üçün müasir enerji dispetçer sistemi sistemin təhlükəsiz və etibarlı istifadə olunmasına əmin olmaq üçün fiziki və funksional olaraq inteqrə edilmiş informasiyaların toplanması və ölçü qurğuları sistemini, məlumat ötürücü və rabitə kanallarını, kompyuter avadanlığı və proqram təminatını özündə birləşdirir.

Azərbaycanda *ötürücü sistem* və onun dispetçer və rabitə avadanlıqları illərlə baxımsızlıqdan, müvafiq texniki xidmətin keçirilməməsindən, təkmilləşdirmə və yeni avadanlığın alınması üçün investisiyalar azlığından əziyyət çəkir. Əsas yarımstansiyaların çoxu 40 ildən artıq istismar olunur. Əvvəlki zamanlarda yarımstansiyaların texniki xidməti yaxşı idi, lakin yaxın 10 il və ondan çox olan müddət ərzində ehtiyat hissələrin çatışmaması və qurğuların yaşlı olması səbəbindən texniki xidmətin səviyyəsi aşağı düşmüşdür. Hal-hazırda yaranan problemlərin çoxu kifayət səviyyədə texniki xidmətin keçirilməməsinin (ehtiyat hissələr üçün maliyyə fondlarının azlığı və/və ya ehtiyat hissələrin yoxluğu) və əməliyyatların ekstremal şəraitdə yerinə yetirilməsinin (məsələn, açarların açılmalarının çoxsaylı səbəbləri sistemin artıq yüklənməsi və dayanıqlığın olmamasıdır) nəticəsidir.

Özünün telemetrik vasitələri və böyük mnemonik sxemi ilə mövcud olan *dispetçer sistemi* iyirmi il əvvəl quraşdırılmışdır. Bu köhnə sovet texnologiyasına əsaslanır və ona ehtiyat hissələrin yoxluğu səbəbindən texniki xidmətin göstərilməsi çox çətindir. Telemetrik sistem Azərbaycanda olan elektrik stansiyalarında və yarımstansiyalarında ölçülməsi tələb olunan təyin edilmiş 5800 ölçünün ancaq 450 –nin əhatə edir. Dispetçerlərin real vaxt rejimində digər məlumatların (məsələn, avadanlıqlarda həyacanların, açarların və transformatorların vəziyyətləri, yük axımı və şinlərdə gərginlik, buraxılan enerjinin miqdarı, və s.) əldə etməsi və onların uzaqdan idarə olunması üçün heç bir imkanları yoxdur. Dispetçerlər özlərinin MDM-də elektrik stansiyalarının və YG sistemdə idarəedilməsi üzrə çox illik iş təcrübəsinə və sistemin vəziyyəti barədə təzələnmiş məlumatın alınması üçün köhnəlmiş dispetçer telefon sisteminə və stansiya üzrə operatorlara şifahi göstərişlərin verilməsinə ümid edirlər. Real vaxt rejimində adekvat məlumatın və sistemin vəziyyəti əks etdirən vasitələrin azlığı MDM-də dispetçerlərin işini çətin və mürəkkəb edir. Elektrik stansiyalarının və YG ötürmənin səmərəli, təhlükəsiz və etibarlı istismar olunması üzrə tələblərə cavab verməsi üçün mövcud olan və istismar vaxtı keçmiş dispetçer və

telemetrik avadanlıqların təmiri və təkmilləşdirilməsi mümkün deyildir. Yeni SCADA/EMS sistemi üzrə MDM və hər bir elektrik stansiyaları və YG yarımstansiyaları dispetçer təlim trenajoru ilə təmin olunacaqdır.

Dispetçer sistemi ümumi dispetçer sisteminə bütünlüklə birləşdirilmiş aşağıdakı əsas komponentlərinin istifadəsini daxil edir:

- (a) SCADA/EMS sistemində Milli Dispetçer Mərkəzinin (MDM) nəzdində baş stansiya və Ehtiyat İdarəetmə Mərkəzi, stansiya və yarımstansiyaların nəzdində olan UTQ-lər (RTU) və Naxçıvan enerji sistemi üçün kiçik həcmli baş stansiya daxildir;
- (b) Tele-rabitə sistemi, və
- (c) Elektrik stansiyaları və yarımstansiyalarında stansiya idarəetmə və ölçü sisteminin adaptasiyası.

SCADA/EMS Sistemi

SCADA/EMS sistemi üçün funksional göstəricilərin texniki spesifikasiyası Azərənəridən olan sifarişçiləri ilə birgə KEMA məsləhətçi şirkəti (Dar Əl Handasah şirkəti ilə birgə, konsorsium bundan sonra KEMA adlanacaq) tərəfindən hazırlanacaqdır. SCADA/EMS sistemi MDM-in nəzdində yerləşdirilməlidir; bununla bərabər, sənayedə istismar etmənin ən yaxşı təcrübəsinə əsasən, ehtiyat idarəetmə mərkəzi də (BCC) (Bakıda) quraşdırılacaqdır. KfW tərəfindən maliyyələşdirilən SCADA üçün ilkin baş stansiya MDM-in və ya EİM-in (BCC) baş stansiyalarının birinə birləşdirilə bilər.

KEMA əmin etməlidir ki, aşağıdakı sub sistemlər SCADA/EMS sistemin üçün adekvat təyin olunmuşlar:

a) SCADA Sistemi, aşağıdakılar daxil olmaqla, lakin onunla məhdudlaşdırılmayan: informasiyanın alınması, yüksək səviyyəli idarəetmə, informasiyanın araşdırılması, MMI sistemi (adam-maşın interfeysi) vasitəsi ilə tam qrafikləşdirilməsi, qəza siqnallaşdırılması, qeydə alınma, hadisələrin inkişaf istiqamətləri, baş verən hadisələrin ardıcıl qeydə alınması, sistemdə qəza halları haqqında məlumatların qeydə alınması, məlumatların toplanması və lazım olan halda onun sənədləşdirilməsi, və məlumatların ötürülməsi kanalları.

b) İstehsalın İdarəetmə Sistemi, aşağıdakılar daxil olmaqla, lakin onunla məhdudlaşdırılmayan: elektrik yüklərin tezliyinin tənzimlənməsi, energetika sistemlərini birləşdirən xətlərinin idarə olunması, ehtiyat gücə nəzarət olunma, qənaətli dispetçerləşdirmə, istehsalın qiymətləndirilməsi, blokların mütləq göstəriciləri, hidroloji qrafikləşdirmə, su və istilik elektrik stansiyalarının işinin əlaqələndirilməsi, elektrik enerjisinin uçotunun aparılması, və cərimə əmsalının hesablanması.

c) Şəbəkə İdarəetmə Sistemi, aşağıdakılar daxil olmaqla, lakin onunla məhdudlaşdırılmayan: sistemin status prosessoru, sistemin modelini hazırlayan, vəziyyətin müəyyən edilməsi, güc axımı, gözlənilməz hadisələrin təhlili, ötürmə itkilərinin cərimə əmsalı, güc axımının dispetçerləşdirilməsi, optimal güc axımı, gərginlik və reaktiv gücünün qrafikləşdirilməsi, qısa-qapanmaların hesablanması, dinamik mühafizənin qiymətləndirilməsi və mümkün olan ötürmə gücü.

d) Əməliyyatın Planlaşdırılması Sistemi, aşağıdakılar daxil olmaqla, lakin onunla məhdudlaşdırılmayan: işdən dayanmaların planlaşdırılması, yükün qısa müddətli planlaşdırılması, və əməliyyatın dəyərləndirilməsi.

e) Dispetçer təlim trenajoru.

f) MDM və ehtiyat idarəetmə mərkəzinin fasiləsiz enerji ilə təmin olunması mənbəyi.

Tele-rabitə Şəbəkəsi

Azərenerjidə mövcud olan tele-rabitə şəbəkəsi köhnə və yeni SCADA/EMS sistemində istifadəsi mümkün olmayan, yüksək tezlikli rabitə xətlərindən (PLC), bəzi kabel rabitə sistemlərindən, dispetçer telefon sistemindən və mobil radiolardan ibarətdir. Yeni tele-rabitə sistemi rəqəmli rabitə texnologiyasına əsaslanır, elektrik stansiyaları və yarımstansiyalarla, və kiçik yarımstansiyalarla yüksək tezlikli rabitə vasitəsi ilə (PLC) yüksək səviyyəli tele rabitənin yaradılması üçün fiber optik kablərdən istifadə edir. Həmçinin, Azərenerjinin əsas sahələrini əhatə edəcək, şəhər ilə əlaqəsi olan yeni ATS ilə bərabər dispetçer telefon sistemi də təmin ediləcəkdir.

Dispetçer telefon rabitəsi, SCADA məlumat, mobil radio, tele-mühafizə siqnallaşması, və digər əməliyyat rabitə xidmətləri üçün tələblər Azərenerji ilə birgə KEMA tərəfindən müzakirə edilmiş və Texniki İqtisadi Əsaslandırmanın hazırlanması dövründə analiz edilmişdir. Bu tələblərə əsaslanaraq, KEMA tele-rabitə şəbəkəsinin topologiyasını hazırlamışdır. Bu, hər bir elektrik stansiyası və yarımstansiyası üçün məlumatın keçiricilik imkanları üçün tələbləri, tele-rabitə şəbəkəsində istifadə etmək üçün avadanlıqların tiplərini, avadanlıqların, onların quraşdırılması və test sınaqları üzrə xidmətin dəyərini nəzərdə tutur. Azərbaycanda olan digər əsas müəssisələrin tele-rabitə avadanlıqlarının imkanları, onlardan, Aztelekom, Azərbaycan Dəmir Yolu, BTC neft boru kəməri daxil olmaqla araşdırılmış, lakin bu təşkilatlar tele-rabitə avadanlıqlarının birgə istifadəsi və inkişaf etdirilməsi ilə əlaqədar, Azərenerji ilə əməkdaşlığa maraq göstərməmişlər. KEMA həmçinin, Azərenerjinin tele-rabitə şəbəkəsində mövcud olan yüksək tezlikli rabitə xətlərinin, mobil radio və digər avadanlıqlarının analizini keçirmişdir. Azərenerji tərəfindən istifadə olunan mobil radio sistemi yenidir və Azərenerji tərəfindən adekvat nəzərdə tutulur.

Tele-rabitə şəbəkəsi bir-biri ilə birləşdirilmiş, fiber optik kablə sisteminə əsaslanan üç halqadan ibarət olacaqdır: belə ki, halqalardan ikisi qısa (Halqa 1 və 2) uzunluğu 43 km olmaqla Abşeron yarımadasını, qərb istiqamətində uzanan, əsas istilik və su elektrik stansiyalarını və Gəncə regionunu birləşdirən uzunluğu 988 km halqa (Halqa 3). Stansiyaları tələb olunan güc ilə təmin etmək üçün fiber optik kabelin şaxələri (və kiçik stansiyalara yüksək tezlikli rabitə xətləri) halqaların düyün nöqtələri ilə uzaqda yerləşən stansiyalar arasında quraşdırılacaqdır. 1-ci və 2-ci Halqalarda yeraltı xətlərdə və ildırım qarşı torpaqlayıcılarla birgə (OPGW) YG ötürücü xətlərdə 24 lifli fiber optik kablədən istifadə olunacaqdır. 3-cü Halqada 24 lifli kabelin əvəzinə 12 lifli kablədən (OPGW) istifadə olunacaqdır, belə ki, əlavə 12 lifli kabelin istifadəsi olunması 2 milyon ABD əlavə xərclərə gətirib çıxaracaq və bu da Azərenerjinin hazırki durumuna və bu əlavə imkanlar üçün tələb olunmayan bazara uyğun deyildir. Köhnəmiş mövcud dispetçer

telefon sistemi, şəhərə çıxışı olan və daxili istifadə üçün istifadə olunan ATS-lər də şəhər telefon sistemi ilə birləşdirilən yeni dispetçer telefon sistemi ilə əvəz ediləcəkdir

Naxçıvan enerji sistemi üçün lazım olan tele-rabitə şəbəkəsi yüksək tezlikli rabitə xətlərini və MDM-ə məlumat ötürmək üçün dar kanal ilə kiçik həcmli dispetçer telefon sistemini istifadə edə bilər.

Tele-rabitə şəbəkəsi avadanlıqları üçün KEMA və Azərenerji tərəfindən hazırlanan funksional göstəricilərin texniki spesifikasiyaları sistemin aşağıdakı subsistemlərinin təmin ediləcəyinə əminlik yaratmalıdır:

- (a) Dispetçer telefon rabitə sistemi;
- (b) SCADA məlumat şəbəkəsi;
- (c) YG yarımstansiyalar arasında tele-mühafizə siqnallaşması;
- (d) Azərenerjinin əməliyyat və inzibati telefon sistemi;
- (e) Azərenerjini əsas ofisləri ilə elektrik stansiyalarını fiber optik kabel əlaqəsi ilə birləşdirən Global Şəbəkə (WAN);
- (f) Elektrik stansiyaları, yarımstansiyaları və əsas ofislərdə tele-rabitə avadanlıqları və UTQ-lər (RTUs) üçün 48 voltluq sabit cərəyan batareyalarının və doydurucu qurğuların quraşdırılması; və
- (g) əməliyyatların yerinə yetirilməsi zamanı səmərəliliyin əldə olunması üçün Azərenerji tərəfindən tələb olunan Digər telerabitə vasitələri.

Stansiya üzrə Uyğunlaşdırma və Ölçü

Elektrik stansiyaları və yarımstansiyalarda enerji sayğaclarının təkmilləşdirilməsi və stansiya üzrə uyğunlaşdırılma işləri tələb olunur. Bura UTQ-lər (RTUs) ilə birləşməni yaratmaq üçün stansiya idarəetmə və ölçü sxemləri və avadanlıqlarının adaptasiya işləri daxildir. Stansiyaların və avadanlıqların yaşlarının çox olması və UTQ-lər üçün çoxlu sayda giriş və çıxış nöqtələri tələb olunduğu üçün bu çox çətin və uzun zaman tələb edən tapşırıq olacaqdır.

KEMA SCADA/EMS sisteminin həcmi Azərenerji ilə müzakirə etmişdir və UTQ-lər üçün giriş və çıxış nöqtələrinin tiplərini təyin etmiş, SCADA və EMS sistemlərinin lazımı səviyyədə fəaliyyət göstərməsinə real vaxt rejimində tələb olunan məlumatların təmin olunması üçün hər bir tip nöqtəyə stansiya adaptasiya işlərinin tələb olunduğu məlum olmuşdur.

2001/2002-ci ildə YG yarımstansiyalarda elektrik stansiyaları və özəlləşdirilmiş paylayıcı müəssisələr ilə birləşmə nöqtələrində enerji sayğacları quraşdırılmışdır. Sayğaclar aktiv və reaktiv güc axımını qeydə alır və sayğacların SCADA UTQ-lər ilə birləşdirilməsi üçün nəzərdə tutulmasına baxmayaraq, Azərenerjinin işçi heyəti tərəfindən əl vasitəsi ilə oxunur. Azərenerji və KEMA təyin edirlər ki, həm kommersiya, həm də əməliyyat ölçülərində istifadə olunan köhnəlmiş, mövcud sayğacların əvəzlənməsi üçün 160 əlavə saygac tələb olunur. Mövcud cərəyan və gərginlik transformatorları enerji sayğacları ilə əlaqələndirilmişdir və SCADA telemetriyası istifadə etmə müddətləri və dəqiqliyi dəyişkəndir. Bəzilərinin əvəz olunması tələb olunur, lakin onların sayı ancaq stansiya adaptasiya işlərinin təfəsilatlı layihəsi hazırlanan zaman təyin oluna bilər. Yanacaq sayğacları əsas üç istilik elektrik stansiyalarının 17 enerji blokunda

quraşdırılacaqdır. Bu da bu blokların səmərəli istismar olunmasına və onların operativ rejimin modelləşdirilməsini həyata keçirməyə imkan verəcəkdir.

Azərenerji işçi heyətinin stansiya adaptasiya işləri üçün tələb etdiyi datçiklərin, sayğacların, kabellərin və digər materialların texniki spesifikasiyaları KEMA tərəfindən hazırlanacaqdır. Stansiya adaptasiya üçün tələb olunan kabellər və digər materialların Qiymətlər Cədvəli hər bir elektrik stansiyası və yarımstansiyada tələb olunan adaptasiyaların layihələndirilməsi və yerinə yetirilməsinə məsuliyyət daşıyan Azərenerjinin layihə qrupu tərəfindən hazırlanmış layihələrə əsaslanaraq, Azərenerjinin LİQ-i (PIU) tərəfindən hazırlanacaqdır.

2.2 Yarımstansiyaların və Ötürücü Xətlərin Bərpası

Ötürücü avadanlıqların bərpası (YG elektrik ötürücü xətlər və yarımstansiyalarda avadanlıqlar) sistemin dayanıqlığının yüksəlməsinə və effektivliyin artmasına, qonşu sistemlərlə daha yaxşı inteqrasiyaya imkan verəcəkdir.

2003-cü ildə "Burns and Roe" məsləhətçi şirkəti AYİB tərəfindən maliyyələşdirilən Enerjinin İstahsalı və Ötürülməsinin Ehtiyacları üçün Prioritet İntestisiyalar mövzusunda hazırlanmış hesabat çərçivəsində güc axımlarının və qısa qapanmaların tədqiqatını yerinə yetirmişdir. "Burns&Roe"-nun tədqiqatı 2006/2007-ci illər və ondan sonrakı dövrlərdə, ilkin olaraq 110 kV-luq və Abşeron yarımadasında gücü 400 MVt gücündə olan Şimal elektrik stansiyasının tikilməsi ilə əlaqədar tələb olunan əlavə ötürücü şəbəkəni nəzərə almaqla, ötürücü sistemdə artıq yüklənməni azaltmaq üçün tələb olunan ötürücü xətlər və yarımstansiya avadanlıqlarını müəyyən etmişdir. Hesabat 2001, 2002-ci illərdən qış aylarında enerji sistemdə açılmaların və 2002-ci ilin İyun ayında baş vermiş tam açılmanın enerji istehsalın kifayət həcmdə olmaması, ötürücü xətlərin artıq yüklənməsi və rele-mühafizə qoyuluşları səbəbindən yarandığını göstərir. Sistem mütəmadi texniki xidmətin olmamasından, ehtiyat hissələrinin yoxluğundan, qurğuların yaşının çox olmasından əziyyət çəkirdi. Avadanlıqların çoxu 40 ildən artıq müddət ərzində istismar olunur, hətta bir sıra yarımstansiyalarda avadanlıqların yaşı 50 ili ötür, hansılar ki, fiziki cəhətdən istismar müddətlərini başa vurmuşlar.

Sistem vəziyyəti üzrə bilgilərə və KfW-nin maliyyələşdirdiyi bərpa obyektlərinə əsaslanaraq, Azərenerji ötürücü sistem üzrə bərpaya təcili ehtiyac duyulan tədbirlərin siyahısını təyin etmişdir. Obyektlər aşağıdakı kimi təcnifatlandırılmışdır:

- a) metal aralıq dayaqaların boltlarını saxlayan və korroziyaya uğramış 1,980 ədəd anker özüllərin əvəzlənməsi, 17 dayağın əvəzlənməsi və 3 dayağın əlavə edilməsi, 13,950 ədəd farfor izolyatorların şüşə izolyatorlarla əvəzlənməsi, bir 500 kV-luq və iki 330 kV-luq xətlərdə müxtəlif xətt armaturlarının quraşdırılması,
- b) xarab olmuş ASO tipli naqillərin daha yüksək göstəricilərə malik olan naqillərlə əvəzlənməsi, 29,300 ədəd köhnə farfor izolyatorların şüşə izolyatorlarla əvəzlənməsi, 220 kV-luq səkkiz xətdə müxtəlif xətt armaturlarının quraşdırılması və dayaqaların möhkəmləndirilməsi işləri,
- c) mis naqillərin daha yüksək göstəricilərə malik ASO tipli naqillərlə əvəzlənməsi, köhnə farfor izolyatorların şüşə izolyatorlarla əvəzlənməsi, 110 kV-luq üç xətdə müxtəlif xətt armaturlarının quraşdırılması, və

- d) 330 kV-luq bir və 220 kV-luq bir yarımstansiyada dörd ədəd avtotransformatorun daha yüksək göstəricilərə malik olanlarla əvəzlənməsi, 330 kV-luq yarımstansiyada transformatorun əlavə olunması, yarımstansiyada üç ədəd 330 kV-luq açarın əvəzlənməsi, 110 kV-luq yarımstansiyalarda üç ədəd transformatorun yüksək göstəriciləri olanlarla əvəzlənməsi, stansiya batareyasının və 110 kV-luq iki yarımstansiyada 10 kV-luq komplekt paylayıcı quruluşun əvəzlənməsi.

Obyektlərlə əlaqədar Azərenerji ilə müzakirələr zamanı müəyyən edildi ki, Azərenerji bərpa obyektlərinin quraşdırılması və sınaqdan keçirilməsi işlərinin öhdəsindən gələ bilmək üçün, bu işlərin xarici və ya yerli kontraktorlar tərəfindən görülməsinin əvəzinə müvafiq tikinti və texniki xidmət üzrə işçi heyətə malik olacaqdır. LİQ (PIU) materialların və avadanlıqların satın alınması işlərinin təşkili və bərpa işləri üzrə tapşırıqların əlaqələndirilməsinə cavabdeh olacaqdır.

Azərenerjiyə həmçinin, sistemin etibarlığını artırmaq, texniki xidmət, və aktivlərin yenilənməsi və əlavə xərclərin azaldılması üçün Aktivlərin İdarəedilməsi proqram təminat paketi təklif olunmuşdur. Azərenerji həmçinin, əgər kredit tərəfindən adekvat maliyyələşdirmə mümkün olarsa, izolyator yuyan avadanlığın alınmasını təklif edir və təkmilləşdirilmiş enerji ölçü sisteminin tələblərinə cavab vermək üçün mövcud olan və dəyişdirilməsi tələb oluna bilən bəzi cərəyan və gərginlik transformatorlarının alınmasına diqqəti yönəldir.

Dəyərlərin qiymətləndirilməsi bu tip işlərin görülməsində beynəlxalq təcrübəyə malik KEMA şirkəti tərəfindən hazırlanmış Texniki-İqtisadi Əsaslandırma əsaslanır. Təkliflər regionda oxşar layihələrə uyğundur. Gözlənilməz fiziki təsirlər 5 faiz həddində qiymətləndirilmişdir. Alınmış yerli materiallar və xidmətlər üçün gözlənilməz qiymət təsirləri Azərbaycan üçün BVF/Dünya Bankının layihələndirmələrinə, idxal olunan avadanlıq üçün beynəlxalq istahsalçıların orta qiymət indekslərinə (MUV) əsaslanmışdır.

Əlavə 5: Layihə Dəyərləri
AZƏRBAYCAN: Elektrik Ötürücü Sistemi Layihəsi

Komponent üzrə və/və ya Fəaliyyət üzrə Layihə Dəyəri	Yerli min. ABD	Xarici min. ABD	Ümumi min. ABD
Enerji Sistemin İdarəedilməsi	*	*	*
Ötürücü Sistemin Bərpası	*	*	*
Aralıq cəm:	6,476	39,338	45,814
İdarəetməyə Yardım	29	2,988	3,283
Layihənin İcrası	36	33	69
Sərbəst vəsait		24	24
Ümumi Bazis Dəyər	7,132	42,904	50,036
Gözlənilməz Fiziki Təsirlər	36	2,199	2,564
Gözlənilməz Qiymət Təsirləri	36	2,199	2,565
Ümumi Layihə Dəyəri¹	7,864	47,301	55,165
Komission haqlar		24	24
Tələb olunan Ümumi Maliyyələşdirmə	7,864	47,541	55,405

* Təfsilatların açıqlanması qadağandır.

¹ Hesaba alınan vergilər 0.0 mln., və ümumi layihə dəyəri, vergilər üzrə netto 55.41 mln.ABŞ dollarıdır. Buna görə də layihə dəyərində vergi nettosunun payı 100 faizdir.

Əlavə 6: Yerinə Yetirilmə üzrə Tədbirlər
AZƏRBAYCAN: Elektrik Ötürücü Sistemi Layihəsi

Layihənin idarə olunmasına və yerinə yetirilməsinə cavabdeh olan icraçı agentlik-Borcalan kimi Azerenerji ATSC (açıq tipli səhmdar cəmiyyəti) ola bilər. Azerenerji yüksək gərginlikli ötürücü sistemdə idarəetməni və nəzarəti və istilik və su elektrik stansiyalarına cavabdeh olan və dövlət məxsus enerji şirkətidir.

Hökumət tərəfdən (hökumət zəmanətini təmin edən) icraçı agentlik Maliyyə Nazirliyi ola bilər. Nazirlik, və bəzi hallarda Borcalan, digər Hökumət agentlikləri ilə, xüsusən də İqtisadi İnkişaf Nazirliyi ilə (IIN), Sənaye və Energetika Nazirliyi ilə (SEN), Nazirlər Kabineti ilə (NK), və Tarif Şurası ilə, və əgər ehtiyac yaranarsa, ikitərəfli və çoxtərəfli maliyyə agentlikləri ilə kordinasiyanı təmin edə bilərdi. Maliyyə Nazirliyi bəzi Hökumət kordinasiyası üzrə işləri və nəzarət üzrə məsuliyyəti belə məsələlərdə səriştəsi olan digər nazirliklərin (IIN və/və ya SEN), üzərinə qoya bilər.

Azerenerji, təklif olunan layihə üçün Baş mühəndisə (Prezidentin Birinci Müavini) hesabat verən, texniki, maliyyə, ətraf mühit, və satınalmalar üzrə mütəxəssisləri özündə cəmləyən və Bankın gündəlik məsələlərlə əlaqədar həmkarı kimi fəaliyyət göstərən Layihənin İcra Qrupunu yaratmışdır. Layihənin hazırlanmasına LİQ (PIU) birbaşa cavabdehdir. Kredit təsdiq olunub və qüvvəyə minən kimi, LİQ (PIU) layihənin yerinə yetirilməsinə cavabdehlik daşımağa başlayacaqdır, bura satınalmalar, müqaviləyə nəzarət və onun yerinə yetirilməsinin tənzimlənməsi işləri, və layihənin maliyyə idarəedilməsi, bura layihə üzrə mühasibat uçotu, maliyyə hesabatının təqdimatı, kreditin ödənilməsi, və daxili auditin keçirilməsi daxildir.

Əlavə 7: Maliyyənin İdarə Olunması və Ödəmə üzrə Tədbirlər

AZƏRBAYCAN: Elektrik Ötürücü Sistemi Layihəsi

1. Xülasə və Nəticələr – Maliyyənin İdarə Olunması

Layihənin ehtiyatları və xərcləri barədə məlumatların Banka vaxtılı-vaxtında və lazımi formada göndərilməsinə əmin olmaq üçün, Azərenerji və LİQ daxilində maliyyənin idarə olunması sisteminin adekvatlığı layihənin hazırlanması dövründə yerinə yetirilmişdir. Layihənin maliyyə idarə olunması sistemi Bankın layihənin yerinə yetirilməsi tələblərinə cavab verir. Bu cür sistemə mühasibat və maliyyə üzrə hesabatvermə, kadrların idarə olunması, daxili nəzarət, audit və kreditin ödənilməsi üzrə tədbirlər daxildir. LİQ həm şirkət, həm də Layihə üçün mühasibat və maliyyə üzrə hesabatvermə işləri üçün LOGO sistemini quraşdırmışdır. Bu sistem, avtomatik olaraq Maliyyənin Monitorinqi üzrə Rüblük Hesabatların hazırlanmasına sazlanmışdır. Layihə üzrə maliyyənin idarə olunması üzrə ümumi risk orta hesab edilmişdir.

LİQ-in məlumat sistemi özündə LOGO Mühasibat uçotu sistemini birləşdirir. Bu sistemin proqram təminatı çoxsaylı valyuta və çoxsaylı dil imkanlarına malikdir və ondan mühasibatlıq işlərində və həmçinin, həm yerli təşkilatlara, həm də Banka hesabatvermə işlərində istifadə olunma bilər. Mühasibat kitabları və mühasibat uçotu əməliyyatların yekunlaşdırılması zamanı gəlirlərin və xərclərin uçotu artırma metodu əsasında aparılır və maliyyə hesabatları həm ABŞ dollarında, həm də yerli valyutada (manat) əks etdirilir. LİQ Maliyyənin Monitorinqi üzrə rüblük hesabatlar hazırlamalı və Banka təqdim etməlidir. Bura, maliyyə üzrə hesabatlar, layihənin gedişatı barədə hesabatlar və satınalmaların idarə olunması üzrə hesabatlar daxildir. LİQ həmçinin, Masliyyə Nazirliyinə, Sənaye və Energetika Nazirliyinə və Milli Banka fondların mənbələri və onlardan istifadə barədə aylıq, rüblük və illik hesabatlar təqdim etməlidir. Əlavə olaraq, LİQ-dən Vergilər Nazirliyinə və Dövlət Statistika Komitəsinə mühasibat uçotu üzrə statistik hesabatların təqdim edilməsi tələb olunur. Daxili nəzarətə aid olan hissə kimi mühasibat işləri üzrə aparılan qaydalar və prosedurlar adekvat hesab edilir və Mühasibat Uçotu və Maliyyənin İdarə olunması üzrə Qaydalarda sənədləşdirilir. LİQ-in əsas işçi heyəti (rəhbər, mühasibat və satınalmalar üzrə mütəxəssislər) müxtəlif şöbələrdən seçilmiş Azərenerji işçiləridir. Layihənin mühasibat işləri üzrə mütəxəssisi Azərenerjinin baş mühasibinin müavini və o, kifayət qədər kvalifikasiyalı və təcrübəsi olan mühasibdir. O, hazırda üzərində işlər gedən BYİB krediti və Elektrik Ötürücü Sistemi Layihəsinin hazırlanması üçün PHRD Qrantı üzrə mühasibat işlərini aparır.

Təklif olunmuş layihənin TY komponentinə, Azərenerjinin (şirkətin) birləşdirilmiş mühasibat uçotu sisteminin sonradan inkişaf etdirilməsi, Beynəlxalq Maliyyə Hesabatları Standartları (IFRS) sistemlərinin və onunla əlaqədar məlumat idarəetmə sistemlərinin tətbiqində şirkətə köməkdarlığın göstərilməsi daxildir.

Layihə üçün Maliyyənin İdarə olunması üzrə Ümumi riski dərəcəsi orta kimi qiymətləndirilir.

2. Ölkə Problemləri

2002-ci ildə Azərbaycanda Ölkənin Maliyyə Hesabatvermə Bacarığının Qiymətləndirilməsi (CFAA) üzrə yerinə yetirilmiş diaqnostik iş hesabat vermə və yaxşı idarəetmək üçün mühasibat uçotu və audit üzrə tənzimləmə və institusional islahatların keçirilməsini müəyyənləşdirmişdir. Hüquqi və tənzimləmə islahatları və institusional imkanların artırılması üzrə CFAA-nın tövsiyyələrinin çoxuna Yoxsulluğun Azaldılması Strategiyası Krediti üzrə üç kreditdə (PRSCs) və yaxınlarda qəbul olunmuş Mühasibat və Audit üzrə İslahatların İnstitusional İnkişafı Qrantında müraciət olunur. Yeni Mühasibat haqqında Qanun və dövlət müəssisələrində Beynəlxalq Maliyyə Hesabat Standartlarının (IFRS) və ictimai sektorda İctimai Sektor üçün Beynəlxalq Standartları (IPSA) istifadə edilməsini həvalə edən ikinci tənzimləmə Parlament tərəfindən qəbul olunmuşdur. Mühasibat haqqında Qanun dövlət fondlarından istifadənin şəffaflığını təmin edəcəkdir. Paralel olaraq, hazırlanma prosesində olan yeni Audit haqqında Qanun qəbul olunması və tənzimləmə və institusional işlər çərçivəsində Mühasibat Palatasının, Audit üzrə Ölkənin Yuxarı İnstitutunun və Auditorlar Palatasının, peşə üzrə nəzarət tənzimçisinin yaradılması maliyyə üzrə Hesabat vermə işlərində daha çox şəffaflığın və müqayisəliliyin əldə olunmasını təmin edəcəkdir.

3. Riskin Analizləri – Maliyyənin İdarəedilməsi

Layihənin maliyyə sistemlərinin idarəedilməsi ilə əlaqədar risklərin xülasəsi aşağıdakı cədvəldə və Layihənin fayllarında qeyd edilmişdir.

Tədbirin adı	Risk	Şərhlər
I. Xas olan risk		
1. Ölkənin Maliyyə İdarəetməsi	Yüksək	Hüquqi və tənzimləmə üzrə islahatlar, effektivliyin və hesabat vermənin artırılmasına ünvanlanan hazırda davam edən YASK 1 və təklif olunmuş YASK 2 və 3 çərçivəsində.
2. Layihənin Maliyyə İdarəedilməsi/Qarşılıqlı fondlar	Orta	Qarşılıqlı maliyyələşdirməni təmin edən borcalanın ümumi səviyyəsinin vaxtında yüksəldilməsi.
3. Bank sektoru	Yüksək	Bank islahatları Siyasəti tam sürətlə yerinə yetirilir.
4. Hesabat vermə və İdarəetmə	Yüksək	YASK 1 hesabat vermə və idarəetmədə insitusional və tənzimləmə islahatlarına ünvanlanır.
Ümumi xas olan risk	Yüksək	
II. İdarəetmə Riski		
1. İcra edən	Alçaq	LİQ-in digər beynəlxalq donorların maliyyələşdirdiyi layihələrdə işləmək təcrübəsinə malikdir.
2. Maliyyə Vəsaitləri Axımı	Orta	Tərəfdaşların maliyyə fondlarının yararlılığı
3. İşçi heyətlə təminat	Alçaq	LİQ-in heyəti Azərenerjinin texniki heyətindən seçilmişdir.
4. Mühasibat uçotu üzrə siyasət və prosedurlar	Orta	Hazırda təkmilləşdirilən Mühasibat və Prosedurlar üzrə Rəhbəredici sənəddə prosedurlar sənədləşdirilmişdir.
5. Daxili audit	Yüksək	Daxili audit funksiyasının gücləndirilməsi tələb olunur. Ümumiyyətlə, ölkə üzrə audit funksiyaları zəifdir və bu sahədə islahatlar YASK üzrə nəzərdə tutulmuşdur.
6. Xarici audit	Orta	Azərenerji hazırkı auditorlar olan PricewaterhouseCoopers qalmasına marağını əks etdirmişdir..
7. Hesabat vermə və Monitoring	Orta	rüblük MIH (FMR) danışıqlarda razılaşdırılacaqdır.
8. Məlumat Sistemləri	Orta	Təkmilləşdirilmiş sistem tətbiq edilmiş və istismar olunur.
Ümumi İdarəetmə Riski	Orta	

H – Yüksək S – Əhəmiyyətli M – Orta N – Əhəmiyyətsiz və ya az

4. Güclü və Zəif Tərəflər

LİQ (PIU) Dünya Bankının maliyyələşdirdiyi layihələrin yerinə yetirilməsi üzrə təcrübəsi yoxdur, lakin o, AYİB və KfW-nin maliyyələşdirdiyi layihələrin yerinə yetirilməsi üzrə təcrübəyə malikdir. Hazırda ölkədə həyata keçirilən mühasibat və audit və planlaşdırılmış YASK (PRSC) altında aparılan siyasət üzrə islahatlar Mühasibat üzrə Milli Standartlardan Beynəlxalq Maliyyə Hesabat Standartlarına (maliyyə dəstəyi ilə təmin olunan bu layihə çərçivəsində) keçidin təsirini azaldacaq və Azərenerjiyə xeyir gətirəcəkdir.

5. İcranı Yerinə Yetirən Qurum

Layihənin idarəedilməsini və yerinə yetirilməsini Azərenerji tərəfdən yaradılan LİQ həyata keçirəcəkdir. LİQ satınalmaların yerinə yetirilməsinə, müqavilənin idarəedilməsi və nəzarətinə, və maliyyə üzrə hesabat vermə, borcun qaytarılması, və müstəqil auditorlar tərəfindən auditin keçirilməsi üzrə tədbirlər də daxil olmaqla, layihənin maliyyə idarəedilməsinə cavabdehdir. Maliyyə Nazirliyi layihənin yerinə yetirilməsi üzrə Hökumət tərəfdən (Zəmanətçi kimi) formal tərəfdaş kimi çıxış edə bilər, lakin bəzi kordinasiya üzrə məsuliyyətləri İqtisadi İnkişaf Nazirliyinə (MED) və/və ya Sənaye və Energetika Nazirliyinə (MIE) həvalə edə bilər.

6. İşçi Heyət ilə Təminat

LİQ-in(PIU) işçi heyətini Layihənin Direktorundan, Maliyyə, Mühasibat işləri üzrə cavabdeh şəxslərdən üzrə və Satınalmalar üzrə mütəxəssisdən ibarətdir. Bütün seçilmiş adamlar Azərenerjinin texniki işçiləridir və digər beynəlxalq donorların maliyyələşdirdiyi layihələrin yerinə yetirilməsində təcrübələri mövcuddur. Layihənin Mühasibat üzrə işlərə cavabdehliyi Azərenerjinin Baş mühasibinin müavini daşıyır. Maliyyənin idarəedilməsi, borcların qaytarılması, beynəlxalq mühasibat və audit standartlarının tətbiqi üzrə mərkəzləşdirilmiş təlim layihə vasitəsi ilə LİQ-in (PIU) maliyyə və mühasibat məsələləri üzrə heyəti tərəfindən təmin ediləcəkdir. LİQ (PIU) üçün seçilmiş mühasib Avropa Birliyinin (AB) həyata keçirdiyi TACİS proqramı çərçivəsində beynəlxalq mühasibat və audit standartlarının tətbiqi üzrə təlimlərdə və yeni Audit Siyasəti üzrə Bankın seminarında iştirak etmişdir.

7. Maliyyə Fondlarının Axımı

Dəyəri 55.4 mln ABD olan layihənin 48.0 mln ABD olan hissəsini Bank, 7.4 mln.ABD olan hissəsini isə Hökumət maliyyələşdirəcəkdir. Maliyyə vəsaitləri bu LQS-in (PAD) ödəmə üzrə tədbirlər bölməsində təsvir olunmuş ənənəvi ödəmələr proseduruna əsasən ayrılacaqdır. Bankın Krediti birbaşa Azərenerjiyə veriləcək və Hökumət bu kreditin qaytarılmasına zəmanət verəcəkdir. BYİB Kreditindən vəsaitlərin ayrılması mallar, işlər, texniki yardım üzrə müvafiq xərclərin maliyyələşdirilməsi üçün bağlanacaq sövdələşmələrə və Kredit Razılaşmasındakı göstərilən faizlər əsasında cari xərclərə əsaslanacaqdır. Layihənin vaxtında yerinə yetirilməsinə köməkdarlıq üçün, borcalan Bankın tələblərinə uyğun olan şərtlər altında, ABŞ dollarında Xüsusi Hesab açmalı, onu saxlamalı və idarə etməlidir. Xüsusi Hesab Bank tərəfindən bəyənələn

kommersiya bankında saxlanmalıdır. Fondlar Bankın ödəmələr üzrə ənənəvi prosedurları əsasında veriləcəkdir. Bura, Xüsusi Hesabdan ayrılmalar, birbaşa ödənişlər, təsdiq edilmiş Xərclər üzrə Hesabatlar (SOEs) əsasında ayrılmalar və çəkilən xərclərə görə kompensasiyalar daxildir. BYİB-in maliyyə fondları Hökumət tərəfindən təmin olunacaq dövlət zəmanəti ilə Azərenerjiyə veriləcəkdir.

8. Mühasibatlığın Mövcud Strukturu, İdarəetmə Sistemi və Nəzarət

Azərenerjinin maliyyə və mühasibat üzrə hazırkı təşkilati strukturu üç istiqamətə ayrılmış şöbələrdən ibarətdir: (i) Maliyyə; (ii) Mühasibatlıq; (iii) Planlaşdırma. Mühasibat şöbəsi Hökumət təşkilatlarına vaxtaşırı məlumatların tərtib olunaraq təqdim edilməsi kimi vəzifələri ilə bərabər, yerinə yetirilmiş sövdələşmələrin qeydə alınmasına və yekun vurulmasına da məsuldur. Hazırda şirkətin Əsas binasında yerləşən Mühasibatlıq öz fəaliyyətində, yəni maliyyə vəsaitlərinin konsolidasiya edilməsi və təşkilatlardan məlumatların qəbul olunması üçün öz istehsalı olan daxili uçot sistemindən istifadə edir. Muhasibat işlərinin aparılması təşkilatlar səviyyəsində mərkəzlişdirilməmişdir. Təşkilatlar dövlət tərəfindən təsdiq olunmuş hesabat formalarını hər rüb üzrə hazırlayır və müxtəlif hökumət təşkilatlarına təqdim olunacaq hesabatların dəqiq və konsolidasiya olması üçün Baş İdarəyə təqdim edir. Şirkətin strukturunda olan təşkilatların hər birində baş mühasiblər mövcuddur. Onlar da öz növbəsində Baş İdarənin Baş mühasibinə hesabat verirlər. Konsolidasiya olunmuş maliyyə hesabatları Milli Mühasibat Standartlarını tətbiq etməklə, əlavə edilmiş məbləğ uçotu metoduna əsaslanır.

9. Mühasibat Uçotu üzrə Siyasətlər və Prosedurlar

Mühasibat sistemi üzrə mövcud olan siyasətlər və prosedurlar daxili nəzarət mühitinin bir hissəsidir. Layihənin idarəedilməsinin bütün səviyyələrində mühasibat üzrə sövdələşmələrə nəzarət etmək imkanı əldə etmək üçün. Mühasibat Uçotu və Prosedurlar üzrə Rəhbər edici sənədlə bu sistem təkmilləşdirilmiş və sənədləşdirilmişdir.

10. Təklif Olunan Layihə üzrə Maliyyə Hesabatı və Mühasibat Uçotu Sistem

Mühasibat uçotu funksiyalarının tam mərkəzlişdirilməsi, mühasibat və maliyyə hesabatları sisteminin tam avtomatlaşdırılması (bura mühasibat üzrə baş kitab da daxildir) tövsiyyə olunmuşdur. Bu, yekcins uçot siyasəti və prosedurunun aparılmaqla, bütün maliyyə əməliyyatları üzrə məlumatların tam şəkildə toplamağa və hesabatları baş kitabda əks olunmuş ilk rəqəmlərlə təqdim etməyə imkan verəcəkdir. Azərenerjiyə təkmilləşdirilmiş avtomatlaşdırılmış və inteqrasiya edilmiş sistem, layihə üzrə maliyyə və mühasibat hesabatlarının hazırlanmasında ayrıca hər hansı yeni hesabat sistemi yaratmağın əvəzində istifadə oluna bilər. Məlumatların gecikdirilməsi və itirilməsi minimuma endiriləcək və mövcud mərkəzsizləşdirilmiş sistemə qarşı adekvat nəzarət tətbiq olunacaqdır. Mühasibat sənədləri və maliyyə hesabatları əməliyyatların sona çatması zamanı yaranmış gəlir və xərclərin əlavə edilmiş məbləğ metoduna əsaslanaraq aparılacaqdır. Azərenerjidən öz fəaliyyətində Mühasibat Uçotu haqqında yeni qanuna əsasən, Beynəlxalq Mühasibat Standartları Şurası (IASB) tərəfindən hazırlanmış Beynəlxalq Maliyyə Hesabatı Standartlarının tətbiq olunması tələb olunur.

11. Hesabatvermə və Monitoring

Rüblük Maliyyə Monitoringi Hesabatları (FMRs) Layihə üçün hazırlanacaqlar və hər rübün qyrtarmasının son tarixin sonrakı 45 gündən gec olmayaraq, Banka təqdim olunacaqdır. MMH (FMRs) tərkibinə daxildir: (i) Maliyyə Hesabatı; (ii) Layihənin Gedişatı barədə Hesabat; və (iii) Satınalmaların İdarəedilməsi barədə Hesabat. Bu hesabatlar maliyyə fəaliyyəti, müvafiq rüb üçün satınalmalarla əlaqədar layihənin gedişatı barədə məlumatların əldə olunması üçündür. MMH-lar (FMRs) üzrə hesabat vermə və onun formatı danışıqlar zamanı təsdiqlənmişdir.

Azərenerjinin maliyyə hesabatının tərkibinə daxil olan mühasibat balansı, gəlirlər barədə hesabat, səhmlərdə başverən dəyişiklər barədə hesabat, nəqd vəsaitlərin axımı barədə hesabat və maliyyə hesabatlarına edilən qeydlər, Beynəlxalq Maliyyə Hesabatı Standartlarına əsasən hazırlanacaqdır.

12. Auditləşdirmə üzrə Tədbirlər

Xarici Audit. Dünya Bankının Yeni Audit Siyasəti bu layihəyə tətbiq olunacaqdır. Baxmayaraq ki, Azərenerjinin maliyyə hesabatı üçün bir audit təyin olunacaqdır, təyin olunmuş auditor Xərclər üzrə hesabatı və Xüsusi Hesabdan istifadəni də yoxlayacaqdır. Audit Bank tərəfindən qəbul olunan standartlara və texniki şərtlərə uyğun gələn müstəqil auditorlar tərəfindən yerinə yetiriləcəkdir. Azərenerjinin maliyyə vəziyyətinin audit hesabatı layihənin maliyyə hesabatı ilə birlikdə Banka hər başa çatan maliyyə ilindən və layihənin başa çatmasından sonrakı altı ay müddətində təqdim olunmalıdır. Azərenerji ilə razılaşmaya və Bankın satınalmalar üzrə razılaşmasının şərtlərinə əsasən, Azərenerji şirkətin hazırki auditorları olan PricewaterhouseCoopers şirkətini layihənin auditorları kimi görmək istəyir. Audit üçün müqavilə layihə üzrə işlərin yerinə yetirilməsinin birinci ilinə təqdim olunacaq və görülən işlər qane edici kimi qəbul olunarsa sonrakı müddət üçün müqavilə uzadılacaqdır. Audit üzrə xərclər Kredit tərəfindən maliyyələşdirilə bilər. Audit üzrə tədbirlər planı danışıqlar zamanı təsdiq olunmuşdur.

Daxili Audit. Mühasibatlıqda və daxili idarəetmədə qiymətləndirmənin, araşdırmanın və nəzarətin effektivliyini və adekvatlığını təyin etmək üçün keçirilən daxili auditin funksiyalarının səviyyəsi Azərenerjidə zəifdir. Ölkədə daxili auditin inkişaf etdirilməsi strategiyasının aparılması YASK (PRCS) çərçivəsində aparılması nəzərdə tutulur.

13. Maliyyə Razılaşmaları.

Azərenerji və LİQ-dən (PIU) Layihə ilə əlaqədar əməliyyatları, resursları və xərcləri adekvat əks etdirmək üçün hesablər və sənədlər daxil olmaqla, maliyyə idarəetmə sisteminin saxlanması və Bankın qəbul etdiyi formatda maliyyə üzrə hesabatların hazırlanması tələb olunacaqdır. Maliyyə və mühasibat üzrə hesabatlar hər il üçün müstəqil auditorlar tərəfindən yoxlanılacaq və hər il üçün yoxlamanın keçirildiyi tarixdən altı ay gec olmayaraq Banka təqdim olunacaqdır. Maliyyənin İdarə olunması üzrə Rüblük Hesabatlar hər rübün sona çatmasından sonrakı 45 gündən gec olmayaraq, Banka təqdim edilməlidir. Digər maliyyə razılaşmaları LQS-nin (PAD) maliyyə analizi bölməsində konkretləşdirilmişdir.

14. Satınalmalar üzrə Tədbirlərin Təsiri

2003-cü ilin İyun ayında yerinə yetirilmiş Ölkədə Satınalmaların Qiymətləndirilməsi Hesabatı (CPAR) üzrə diaqnostik işin nəticələrinə görə hüquqi struktur, yerinə yetirilmə rejimi və satınalmalar imkanı gücləndirilməyə ehtiyacı olan sahələr kimi təsnifatlandırılmışdır. Azərbaycan Birləşmiş Millətlər Komissiyasının Beynəlxalq Ticarət Qanununun (UNCITRAL) modelinə daha çox əsaslanan Dövlət Satınalmaları üzrə yeni Qanunu (PPL) qəbul etmişdir. DSQ (PPL) Dövlət Satınalmalar Agentliyi tərəfindən (SPA) yerinə yetirilən daxili inzibati nəzarət və məhkəmə nəzarətindən ibarət üç halqalı nəzarət sistemi tətbiq edir. Məhkəmələrin satınalmalar üzrə mübahisələrin həlli ilə əlaqədar imkanları zəif olması, DSA-nın (SPA) məxvilik səviyyəsini və prosesin şəffaflığını şübhə altına alınmasına səbəb olur. DSA-yı (SPA) satınalmaların tənzimlənməsi funksiyaları və Dövlət Satınalmaları üzrə Qanunu (PPL) şərtlərinə əsasən razılaşmalara zəmanət verəcəyinə hazırlılığı göstərmişdir.

15. Nəzarət Planı

Layihənin hazırlanması dövründə, (i) maliyyə mühasibat uçotunun və hesabat vermə işlərinin adekvatlığını; (ii) maliyyə fondlarının axımının layihənin məqsədlərinə uyğunluğunu; (iii) rüblük MMH-ın (FMRs) və illik audit hesabatların (İdarəetmə Məktubları ilə müşayət olunan) vaxtında təqdim olunmasını, və hüquqi tələblərə cavab verməsini təyin etmək üçün maliyyənin idarəedilməsi üzrə heyət risklərə əsaslanan maliyyə idarəedilməsinin qiymətləndirilməsini keçirə bilər.

16. Ödəmə Tədbirləri

Aşağıda göstərilən cədvəl Kredit tərəfindən maliyyələşdiriləcək bölmələrin Kategoriyalarını, hər bir Kategoriya üçün Kreditin ayrılmış məbləğini və Kategoriyada maliyyələşdirilən hər bir bölmə üçün xərclərin faizlərini təyin edir:

Kredit üçün ayrılmış məbləğlərin bölüşdürülməsi:

Kategoriya	Kreditin Ayrılmış Məbləği (ABŞ dollarında göstərilmişdir)	Maliyyələşdiriləcək xərclərin faizi (%)
(1) İşlər	160,000	80%
(2) Mallar	44,510,000	100% xarici xərclər, 100% yerli xərclər(qeyri-zavod qiymətlər), və 80% yerli istehsal olunan digər bölmələrin xərcləri
(3) Məsləhətçi xidmətlər və Auditlər	2,470,000	Zəmanətçinin ərazisi daxilində daimi yaşayan yerli fərdi məsləhətçilər üçün 75% yerli xərclər, Zəmanətçinin ərazisi daxilində daimi yerləşən məsləhətçi şirkətlər üçün 95% yerli xərclər, digər məsləhətçilərin xidmətləri üçün 85% xarici xərclər, və 100% müvafiq sosial xərclər
(4) Təlim	100,000	100%
(5) Əlavə Əməliyyat xərcləri	280,000	75%, və 100% müvafiq sosial xərclər
(6) Komissiya haqları	240,000	Bu Razılaşmanın 2.04 Bəndinin əsasən məbləğ
(7) Sərbəst vəsaitlər	240,000	
ÜMUMİ	<u>48,000,000</u>	

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BYİB Kreditindən ödəmələr mallar, işlər, texniki yardım və cari işlər [Azərbaycan üçün Ölkə üzrə Maliyyələşdirmə Parametrləri ilə uyğunlaşan] üzrə müvafiq xərclərin maliyyələşdirilməsi razılaşma əsasında olacaqdır. Layihənin vaxtında icra olunmasını yüngülləşdirmək üçün Bankın şərtlərinə uyğun olaraq, borcalan, ABŞ dollarında Xüsusi Hesab açmalıdır, onu idarəetməli və

saxlamalıdır. Xüsusi Hesab Banka tələblərinə cavab verən kommersiya bankında açılmalıdır. Xüsusi hesabın doldurulmasına sifariş hər rübdən gec olmamağa əsaslanacaqdır. Xüsusi Hesabda ilkin olaraq [1,000,000] ABŞ dolları yerləşdiriləcəkdir. Kredit altında ümumi ödəmələr [5,000,000] ABŞ dollarına çatarsa, Xüsusi Hesabda yerləşdirilən vəsait [2,000,000] ABŞ dollarına çatacaqdır. Ayırmalar [Xüsusi Hesabın 20%-indən] artıq olarsa, ödənişlər birbaşa Kredit Hesabından yerinə yetiriləcəkdir. Kreditin ödəmələr metoduna tam sənədləşmə ilə kompensasiyalar, razılaşdırılmış məhdud həddə kiçik xərclər üçün Xərclər Hesabatına (SOEs)¹¹ əsaslanan kompensasiyalar, və Xüsusi Öhdəliklər müqabilində ödənişlər daxildir. A Komponenti (Enerji Sistemin İdarəedilməsi) altında əsas müqavilə birbaşa Kredit Hesabından ayrılan ödənişlərlə yerinə yetirəcəklər.

¹¹ Kiçik həcmli müqavilələr üzrə istinadlar LQS-nin Satınalmalar bölməsində verilmişdir.

Əlavə 8: Satınalmalar

Azərbaycan: Elektrik Ötürücü Sistemi Layihəsi

1. Ümumi

Təklif olunmuş layihə üçün satınalmalar 2004-cü ilin May ayı ilə tarixlənmiş Dünya Bankının “Rəhbəredici Sənədlər: BYİB və BİA Kreditləri altında Satınalmalar”; və 2004-cü ilin May ayı ilə tarixlənmiş “Rəhbəredici Sənədlər: Dünya Bankının Borcalanları tərəfindən Məsləhətçilərin Seçilməsi və İşə Cəlb olunması” sənədlərinə və təminat işə Hüquqi Razılaşma əsasında yerinə yetiriləcəkdir. Müxtəlif xərc kateqoriyaları altında bölmələrin ümumi təsviri aşağıdakı Cədvəl 1-də verilmiş və yekunlaşdırılmışdır. Borcalan ilə Bankın layihə qrupu arasında Satınalmalar üzrə Planda Kredit tərəfindən maliyyələşdirilən hər bir müqavilə üçün müxtəlif satınalma metodları və ya məsləhətçinin seçilmə metodları, ilkin kvalifikasiya üçün ehtiyaclar, qiymətləndirmə üzrə xərclər, təhlilin ilkin tələbləri və vaxt intervalı razılaşdırılmışdır. Satınalmalar üzrə Plan ən azı hər il və ya layihənin yerinə yetirilməsi ehtiyaclarını və institusional imkanların artımlarını ödəmək üçün təkmilləşdiriləcəkdir.

İşlər üzrə Satınalma: Bu layihə altında görülmək işlərə daxil ola bilər: Milli Rəqabət Hərracı (NCB) prosedurlarına əsasən təmin olunmuş müqavilələr. Satınalmalar Bank ilə razılaşdırılmış Milli Standart Təklifmə Sənədlərinə (SBD) əsasən yerinə yeriləcəkdir.

Mallar üzrə Satınalma: Alınacaq avadanlıqların çoxu quraşdırılmalıdır. Buna görə də, Malların çoxunun alınması Dünya Bankının Standart Təchiz etmə və Quraşdırma şərtləri altında yerinə yetiriləcəkdir. Ötürücü sistem və digər müxtəlif avadanlıqların alınması Beynəlxalq Rəqabət Hərracları üsulu ilə aparılacaqdır. Məlumat İdarəetmə Sistemi üçün Kompüter Avadanlığının və Proqram Təminatının alınması “Şopping” (kiçik həcmdə alış-veriş, tender proseduru olmadan) üsulu ilə aparılacaqdır. Bütün Beynəlxalq Rəqabət Hərraclarda Bankın Standart Təklifmə Sənədləri (SBD) istifadə olunacaqdır. Milli Rəqabət Hərracları yolu ilə əlınan Mallar, Bank ilə razılaşdırılmış, Borcalanın MBH üzrə prosedurları əsasında alınacaqdır. Spesifik miqdarda Malların Satın alınması (Şopping) ən azı üç təchizatçıdan alınmış qiymətləri müqayisə edərək yerinə yetiriləcəkdir.

Bankın tələblərinə cavab verən Birbaşa Müqavilələrin bağlanması yolu ilə mallar və işlər adı çəkilən metodun şərtlərinə uyğun olaraq satın alınma bilər.

Məsləhətçilərin Seçilməsi: Məsləhətçi xidmətlərinə Ötürücü Sistemin Tədqiqatı, Şəbəkə Nizamnaməsinin Hazırlanması, Məlumat İdarəetmə və Mühəsibat Uçotu Sistemi və Layihənin İdarəedilməsi (şirkətlər Keyfiyyət və Dəyər üzrə Seçməyə (QCBS) və Məsləhətçilərin Kvalifikasiyası (CQ) üsulu ilə seçilmişdir) daxildir. Layihənin İdarəedilməsində kiçik məsələlər üzrə fərdi məsləhətçilər ən azı üç tərcümeyi-halın (CVs) müqayisəsi ilə seçiləcəklər.

Əlavə Əməliyyat Xərcləri: Layihəyə nəzarətin həyata keçirilməsi və onun idarəedilməsi zamanı yaranan əlavə əməliyyat xərclərinin maliyyələşdirilməsi layihə çərçivəsində 380,000 ABŞ dolları nəzərdə tutmuşdur. Bura: (a) LİQ-in (PIU) və digər mütəxəssislərin beynəlxalq və yerli səfərlərin xərcləri; (b) avadanlıqların alınması və ya layihə ilə əlaqədar işlərin görülməsi zamanı rabitə, texniki xidmət və əməliyyat xərcləri; və (c) yerli və beynəlxalq təlim-tədris xərcləri.

2. Satınalmaların icrası üçün Layihənin İcra Qrupunun bacarığının qiymətləndirilməsi

Layihə üzrə işlər tam iş vaxtının layihənin yerinə yetirilməsi üçün ayırdığı Azərenerjinin işçi heyətindən ibarət olan LİQ (PIU) tərəfindən yerinə yetiriləcəkdir. Bura Satınalmalar, Maliyyə və texniki işlər üzrə mütəxəssislərlə bərabər, Texniki şöbənin rəisi daxildir. LİQ (PIU) malların, işlərin və xidmətlərin satın alınması üzrə işlərin Dünya Bankının rəhbəredici sənədlərinə əsaslanaraq, müvafiq qaydada yerinə yetirilməsinə zəmanət verməlidir. Onun vəzifələrinə layihənin maliyyə vəsaitlərinin idarəedilməsi, hesablara xidmət, hesablaların yoxlanması, LİQ (PIU) üçün adekvat büdcənin yaradılması, məsləhətçilərin və işçi qrupların işlərinə köməkdarlıq, məsləhətçilərin hazırladıqları işin təhlili, SCADA/EMS sisteminin qəbul üzrə sınaq testlərinin təşkili və s. LİQ-in (PIU) rəhbəri müvafiq səviyyədə qərar qəbul etmək səlahiyyətinə malik şəxslərə giriş imkanlarının yaradılacağına zəmanət verməli və icra və ya kordinasiya üzrə yaranan təcili problemlərin onların diqqətinə müvafiq çatdırmağı bacarmalıdır.

LİQ-in (PIU) layihənin yerinə yetirilməsi bacarığının qiymətləndirilməsi 2004-cü ilin Oktyabr ayınının 18-də Satınalmalar üzrə baş mütəxəssis Qurçaran Sinqx tərəfindən aparılmışdır. Qiymətləndirmə layihənin icra edilməsi üçün təşkilati strukturu və layihənin işçi qrupunda satınalmalar üzrə məsul heyətlə, Enerji Nazirliyinin və Azərenerjinin müvafiq strukturları ilə qarşılıqlı əlaqəni təhlil etdi. Layihənin yerinə yetirilməsi üçün satın alınma komponentləri ilə əlaqədar risklərin çoxusu LİQ (PIU) tərəfindən, xüsusən də AYİB, İslam Bankının ayırdığı kreditlər çərçivəsində malların satın alınması üzrə bəzi təcrübəsi olan qrupun satınalmalar üzrə məsul şəxsi tərəfindən təyin edilmişdir. LİQ-n (PIU) BYİB/BİA-nin ayırdığı borc və ya kreditlər üzrə satınalmaların yerinə yetirilməsi üzrə təcrübəsi yoxdur. Bu işlərin düzəldilməsi tədbiri kimi satınalmalar üzrə məsul şəxsin və LİQ-in rəhbərinin BƏT-də (ILO) Dünya Bankının təşkil etdiyi satınalmalar üzrə təlim kurslarına və ya hər hansı bir digər institutlara göndərilməsi razılaşdırılmışdır. Bundan əlavə, TY-da (TA) satınalmalar üçün dəstək layihə üzrə tələb olunduğu kimi göstəriləcəkdir.

Satınalmalar üzrə layihənin ümumi riski yüksək qiymətləndirilmişdir.

3. Satınalmalar Planı

Satın alınma metodları üçün əsas rolunu oynayacaq layihənin icra olunması üzrə Satınalmalar Planı Borcalanın məsləhətçisi olan KEMA tərəfindən hazırlanmışdır. Bu plan Bank ilə sonrakı müzakirələr zamanı inkişaf etdirilmişdir. Satınalmalar üzrə Plan hər il və ya daha tez, əgər layihənin yerinə yetirilməsi üzrə ehtiyaclar yaranarsa təkmilləşdiriləcəkdir. Əgər borcalan tələb edərsə, Satınalmalar Planı Layihənin məlumat bazasında və Bankın veb saytında smeta qiymətləri göstərilmədən əldə etmək mümkün olacaqdır.

Cədvəl 1: Satınalma Tədbirləri üzrə Layihə Xərcləri

(mln.ABŞ dollarına ekvivalent)

Xərcin Kateqoriyası	Satınalma Metodu ¹				Cəmi Xərc
	BRH	MRH	Digər ²	N.B.F.	
1. İşlər	0.20	–	5.783 ³ 0.00	0.00	5.98
	(0.16)	(0.00)	(0.00)	(0.00)	(0.16)
2. Mallar	43.6 (42.9)	0.70	0.9 (0.8)	0.00	45.3
		(0.00)		(0.00)	(44.5)
3. Məsləhətçi Xidmətlər	0.00 (0.00)	0.00 (0.00)	2.87 (2.46)	0.00 (0.00)	2.87 (2.46)
4. Əməliyyat Xərcləri	0.00 (0.00)	0.00 (0.00)	0.77 (0.38)	0.00 (0.00)	0.77 (0.38)
5. Komissiyon haqlar			0.24 (0.24)		0.24 (0.24)
6. Sərbəst hissə			0.24 (0.24)		0.24 (0.24)
Cəmi	44.4 (44.3)	6.48 (0.00)	4.05 (3.70)	0.00 (0.00)	55.4 (48.0)

¹ Mötərizədə olan rəqəmlər Bankın Krediti tərəfindən maliyyələşdiriləcək. Bütün xərclər gözlənilməz təsirləri daxil edir.

² Bura tikinti işləri və şopping ilə alınan mallar, məsləhətçi xidmətlər, təlim, texniki yardım xidmətləri, və layihənin icrası ilə əlaqədar əlavə əməliyyat xərcləri daxildir.

³ 5.78 milyon ABD həcmində məbləğin 40.000 ABD Azərenerji tərəfindən edilən sərmayədir

4. Satınalma üzrə Qərarlarla əlaqədar Bankın İcmalı

- BRH üzrə Müqavilələrin hər biri 600,000 ABŞ dolların yuxarı ekvivalentdə dəyərləndirilir və bütün Birbaşa Razılaşmalar Bankın ilkin razılığını tələb edir.
- BRH, dəyəri 1 milyon ABD olan Mallar üzrə müqavilələr və ya ona ekvivalent müqavilələr üçün və ilkin nəzərdən keçirilmiş bütün birbaşa müqavilələrə aid olacaqdır.
- Birinci müqavilə MRH və Şopping vasitəsilə

**Cədvəl 2: Məsləhətçilərin Seçilməsi Tədbirləri
(mln.ABŞ dollarına ekvivalent)**

Məsləhətçi Xidmətlər üzrə Xərc Kategoriyaları	QSBC	SFB	LCS	CQ	Digər	N.B.F.	Cəmi Xərc
A. Şirkətlər	0.41	0.00	0.00	2.23	0.00	0.00	2.64
	(0.35)	(0.00)	(0.00)	(1.93)	(0.00)	(0.00)	(2.28)
B. Fərdi	0.00	0.00	0.00		0.23	0.00	0.23
	(0.00)	(0.00)	(0.00)		(0.19)	(0.00)	(0.20)
Cəmi	0.41	0.00	0.00	2.23	0.23	0.00	2.87
	(0.35)	(0.00)	(0.00)	(1.93)	(0.19)	(0.00)	(2.47)

(b) Bankın ilkin razılığını tələb etməklə, Məsləhətçi xidmətlər üzrə xərc hər bir müqavilə üzrə 100,000 ABŞ dollarına yuxarı ekvivalentdə (şirkətlər) və ya 50,000 ABŞ dolları (fərdi) qiymətləndirilmişdir.

(c) xidmətlər üçün məsləhətçilərin qısa siyahısı hər bir müqavilə üçün 200,000 ABŞ dollarından aşağı qiymətləndirilmişdir, Məsləhətçi Sənədinin 2.7 paragrafına uyğun olaraq, təmənilə il yerli məsləhətçilərdən təşkil oluna bilər.

5. A Komponenti üçün Satınalma Strategiyası: Enerji İdarəetmə Sistemi

Satınalmalar strategiyası "Azərenerji" ASC tərəfindən tələb olunan SCADA/EMS sisteminin, telerabitə şəbəkəsi və ölçü avadanlıqlarının vahid "açar təhvil" müqaviləsi əsasında alınması və işlərin yerinə yetirilməsi prosesidir. Müqavilə Dünya Bankı tərəfindən təyin olunmuş standart ticarət proseduruna əsasən iki mərhələli təklif etmə prosesindən keçərək, dəyərləndirilməlidir. İddiaçıların ilkin kvalifikasiyası layihənin yerinə yetirilməsi dövründə yerinə yetirilmişdir. 1-ci mərhələdəki sənədlərdə *funksional* spesifikasiyalar əks olunmalıdır. Bunun əsasında namizədlər hər iki: texniki və kommersiya cəhətdən uyğunluq barədə məlumatlar da daxil olmaqla, dolğun texniki təkliflər təqdim etməlidirlər. Lakin burada heç bir qiymət və ya qiymətləndirmə məlumatları əks olunmamalıdır. Hər bir namizədin texniki təklifləri araşdırıldıqdan və qiymətləndiriləndən sonra, 2-ci mərhələ üçün ümumi əsaslar müzakirə olunacaqdır. Yeniləşdirilmiş texniki və kommersiya şərtləri olan təkliflərlə birlikdə kvalifikasiyadan keçmiş namizədlər 2-ci mərhələyə sənədlər toplusunu təqdim etmək üçün dəvət olunacaqlar. Bütün, texniki/kommersiya şərtləri də daxil olmaqla, təqdim olunmuş təkliflərin texniki/qiymət cəhətdən münasib olması kriteriyası əsas götürülərək, yenidən baxılacaq və qiymətləndiriləcəkdir, namizədlərdən hansının qalib olması müəyyən olunacaqdır. Qalib elan olunmuş namizəd müvafiq müqavilə bağlamaq üçün dəvət olunacaqdır.

Əlavə 9: İqtisadi və Maliyyə Analizləri
AZƏRBAYCAN: ELEKTRİK ÖTÜRÜCÜ SİSTEMİ LAYİHƏSİ

1. İqtisadi və Maliyyə Özünü Ödəmə Normaları

1.1 A Komponenti: Enerji İdarəetmə Sistemi (SCADA/EMS Sistemi)

Kapital xərc: SCADA/EMS sisteminin ümumi kapital xərci 10% gözlənilməz xərcləri də nəzərə almaqla, (rəqəmin göstərilməsi qadağandır) milyon ABŞ dolları həcmində qiymətləndirilmişdir. Ödəmələrin 2006-cı ilin birinci rübündə başlayacağını nəzərə almaqla, sistemin quraşdırılmasının dörd il çəkəcəyi gözlənilir.

Galirlər: Müasir SCADA/EMS sisteminin quraşdırılması bütün aspektlərdə Azərenerjidə əməliyyat işlərinin səviyyəsini əsaslı surətdə yüksəldəcəkdir. Bəzi hallarda yüksəlmənin dərəcəsini təyin etmək çox çətindir (məsələn, yaxşı planlaşdırılmış texniki xidmətin gətirəcəyi effektlərini, aktivlərin ömürlərinin uzaldılması və kiçik kommersiya itkiləri hesabına yığının artırılması). Digər xeyirlər təyin edilə və ölçülə bilər. Xüsusən özünü ödəmə normalarının analizində (IRR) baxılan xeyirlərin tipi aşağıdakı kimidir:

- 1) elektrik stansiyalarda işin planlaşdırılmasının artırılması nəticəsində yanacaq xərclərinin azalması;
- 2) daha kiçik ötürmə itkiləri;
- 3) idarəetmə, məlumatların qeydə alınması və hesabat vermə üzrə daha kiçik istismar xərcləri;
- 4) planlaşdırılmayan açılmalardan sonra sistemin bərpası vaxtının artırılması; və
- 5) yeni istehsal üzrə azaldılmış xərclər.

Təkmilləşdirilmiş Planlaşdırma: Azərenerjinin enerji istehsal sistemi 27 enerji blokdan ibarət olan yeddi istilik elektrik stansiyadan ibarətdir. Bəziləri istilik və elektrik enerjisini qarışıq, bəziləri isə ancaq elektrik enerjisini istehsal edir. Həmçinin, 15 hidro aqreqatdan ibarət dörd su elektrik enerjisi stansiyası vardır. İstilik elektrik stansiyaları əsas tələbət mərkəzlərindən qeyri-optimal məsafədə yerləşirlər. Bu stansiyalar hər iki həm qaz, həm də mazut istifadə etmək üçün layihələndirilmişlər, lakin mazut istifadə edilərkən onların işi daha az effektivdir. Əlavə olaraq, elektrik enerjisi idxal etmək üçün Rusiya ilə aktiv, və Azərbaycanın Naxçıvan anklavına enerji ötürmək üçün İranla kompensasiya tipli əlaqə mövcuddur. Həmçinin, Gürcüstanla 330 kV-luq əlaqə xəttinin bərpası ilə əlaqədar planlar da vardır.

Azərenerji sistemi yüklənmə ilə əlaqədar öz tələbatını ödəmək üçün mürəkkəb sistemə malikdir. Enerji sistemdə əməliyyatlar Bakıda yerləşən, köhnəlmiş və ehtiyat hissələrin əldə olunmasından əziyyət çəkən dispetçer mərkəzi ilə idarə olunur. Nəticədə, dispetçer sistemi optimal səviyyəsindən aşağı səviyyədə fəaliyyət göstərir ki, bu da sistemin effektiv istismar olunmasını aşağı salır. SCADA və tele-rabitə sistemi ilə istilik elektrik stansiyalarının planlaşdırılması yüksələcək və nəticədə onların istismar səviyyəsi əhəmiyyətli dərəcədə artacaqdır. Təkmilləşdirmə planına həmçinin, su resurslarından optimal istifadənin təşkilini nəzərdə tutmalıdır. Çünki, bəzi bəndlərin irriqasiya və işməli su təchizatında istifadə olunması onların istismar olunması işini xeyli mürəkkəbləşdirir.

Elektrik stansiyalarının işinin planlaşdırılmasının yüksəldilməsi nəticəsində qənaət olunmuş dəyişən xərclər əsasən yanacaq tiplidir, bu fərq ya qənaət olunmuş yanacaq formasında və ya artıq yüklənmələrdə elektrik stansiyalarının işinin aşağı dəyər formasında planlaşdırılması zamanı yaranır. Azərenerjidə yanacağın orta xərcləri yaxın illərdə davamlı olaraq armaqdadır, belə ki, elektrik stansiyalarında istifadə olunan təbii qazın Rusiyadan idxal səviyyəsi aqrtmaqdadır. Buna görə də, 2002-ci ildə qazın orta dəyəri hər kub metr üçün 34.10 ABŞ dolları olmuşdur, gözlənilir ki, gələcəkdə bu qiymət idxal qiymətinə bərabərləşəcəkdir (hər bir kub metr üçün 2004-cü ildə təxmini 53 ABŞ dollar, 2005-ci ildə artaraq 60 ABŞ dolları təşkil etmişdir). Əgər qaz və mazutun istifadə səviyyəsinin 75/25 olduğunu nəzərə alsaq, hər kVts elektrik enerjisi üçün yanacağın orta dəyərinin 2002-ci ildə \$0.0138/kVts-dan 2004-cü ildə \$0.0217/kVts artacağı gözlənilir. Bu nisbətdə qazın idxal dəyərinə əsaslanaraq, hər kVts elektrik enerjisinin dəyəri \$0.0268 olması gözlənilir. Bu qiymətləndirmələri istifadə edərək, layihələşdirilən Azərenerji üçün yanacaq maliyyə xərcləri 2005-cü ildə 563 milyon ABŞ dolları təşkil edəcəkdir (hər kVts üçün yanacağın orta xərclərinə əsasən). İdxal olunan qazın natural dəyərinə əsasən, iqtisadi dəyər təxmini 24 faiz artıq olacaqdır (696 milyon ABŞ dolları).

Məlumatların hazırkı qıtlığını nəzərə alaraq, hazırki Azərenerji şəbəkəsində SCADA/EMS sisteminin quraşdırılmasından əldə olunacaq yüksəlişi dəqiqliklə proqnozlaşdırmaq mümkün deyildir. Yanacağın istifadəsinin 1.5% azalması ilə əlaqədar ehtiyatlı qiymətləndirmə beynəlxalq təcrübəyə əsaslanır. Yanacağın layihələndirilmiş ümumi dəyəri 2005-cü ilin yuxarıda təsvir edilmiş orta və natural dəyərləri əsasında hesablanmışdır və Burn&Roe –nun hazırladığı Tələbat Proqnozunda¹² göstərilən tələbat proqnozlarına proporsional qaydada artımı təxmin edilir. SCADA sisteminin quraşdırılması ilə əlaqədar əldə olunacaq qənaət 2010-cu ildə (sistemin birinci istismar edilmə ili) maliyyə analizi üçün 9.1 mln. ABD və iqtisadi analiz üçün 11.2 mln.ABD miqdarında qiymətləndirilmişdir. Bu qənaətlər tələbatın artımına proporsional qaydada illik əsasda artacaqdır.

Ötürmədə daha kiçik itkilər: Azərbaycanın elektrik enerji sistemi 2002-ci ildə texniki itkilərinin 11,8% həddində olduğunu göstərmişdir. Bu 2000-ci ilə qədər illik 16% həddində olan itkilərin azalma prosesini əks etdirir. Kommersiya itkilərinin 2000-ci ildə tələb olunan 0%-dən 2002-ci ildə 5.2%-ə artdığı bir vaxtda, bu azalmanın texniki səviyyənin yüksəlməsi nəticəsində əldə edildiyi barədə bir şey söyləmək çətindir. Ötürmə sisteminin texniki itkilərinin 5% həddində olduğu göstərilir.

SCADA-nın tətbiqi milli ötürücü sistemin səmərəli istifadəsinə, nəticədə, ötürmə üzrə ümumi itkilərin azalmasına imkan verəcəkdir. Belə inkişafı, planlaşdırmada olduğu kimi, ölçmək çox çətindir, bununla belə, digər sistemlərlə təcrübə bunun baş verəcəyini təxmin edir. Bu analiz üçün inkişaf 0.5% qəbul edilmişdir; bu ötürmə zamanı yaranan itkilərin hazırki 5%-dən 4.5%-ə düşməsinə təxmin edir. Əldə olunmuş xeyirlər istifadə olunmayacaq yanacağın həm iqtisadi, həm də maliyyə terminlərində olan dəyərinə ölçülmüşdür. 2010-cu ildə Aərenerjinin maliyyə xeyiri 3.0 mln.ABD, iqtisadi xeyiri isə 3.7 mln.ABD olması layihələndirilmişdir.

Daha kiçik İstismar Xərcləri: Məlumatların qeydə alınması və ötürülməsi Azərenerji daxilində əhəmiyyətli miqdarda resursların istifadəsini cəlb edir. Şirkət SCADA-nın tətbiq olunması ilə

¹² "Burns & Roe" şirkəti: Elektrik Stansiyalarına və Ötürücü Sistemə İnvestisiya Tələbləri üçün Prioritetlərin Təyini, Noyabr, 2003

əlaqədar, illik 315,400 ABŞ dolları miqdarında əməliyyat xərcləri üzrə yaranacaq qənaətin smetasını hazırlamışdır. Qənaətin əhatə etdiyi sahələrə mühasibat uçotu və maliyyə üzrə hüسابat vermə, texniki-iqtisadi məlumatların hazırlanması, maliyyə məlumatlarının kompyuterləşdirilmiş hazırlanması, kadr ehtiyatlarının istifadəsi, əməliyyat və idarəetmə işlərinin (Əİ) kompyuterləşdirilməsi, rabitə xərclərinin azalması, və investisiyanın planlaşdırılması daxildir.

Eyni zamanda yeni SCADA/EMS sistemi üçün əlavə Əİ xərcləri olacaqdır. Bu cür tip sistemlər üzrə beynəlxalq təcrübəyə əsasən, Əİ üzrə əlavə xərclər hər il kapital qoyuluşu üzrə xərclərin 1.5% həddində, təxmini (qiymətin göstərilməsi qadağan edilmişdir) ABŞ dolları həcmində qiymətləndirilmişdir.

Açılma Vaxtlarının Azaldılması: Müasir SCADA sisteminin tətbiqi elektrik ötürücü sistemdə baş vermiş açılmaları tez vaxt ərzində bərpa etməyə imkan verəcəkdir. Çünki, bu sistemin dispetçerlər tərəfindən ümumi idarəedilməsi daha tez və daha dəqiq olacaqdır. Əgər qəza geniş ərazini əhatə edərsə, ola bilsin ki, səhv nəticəsində baş verən qəza qısa müddətli olsun, bərpa olunma prosesi bəzi vaxt tələb edərdi. Bir qayda olaraq, bərpaetmə vaxtını orta müddət kimi üç saatdan bir saata endirmək olar, bu da açılma zamanı yaranan iqtisadi itkiləri azaltmaqla nəticələnərdi.

Regional və ya ölkə həcmində böyük miqyaslı açılmalarla əlaqədar məlumatlar göstərir ki, bu cür açılmalar nadir hallarda baş verir. 2003-cü ildə 16 açılma olmuşdur və bu zaman açılan güc 97 MVt ilə 845 MVt arasında olmuşdur. Bunların ciddi səbəblər üzündən baş verməsinə baxmayaraq, açılma vaxtı 20 dəqiqədən çox olmamışdır və bu müddət SCADA sistemi ilə əhəmiyyətli dərəcədə azaldıla bilməyəcəkdir. 2002-ci ildə sistemin kaskadvari açılmalar nəticəsində ölkə miqyasında böyük açılma baş vermişdir. Bu vəziyyətin düzəldilməsi üçün qəzanın baş verməsi vaxtından sonrakı bütün gün daxil olmaqla, 22 saat vaxt tələb olunmuşdur. Bu hadisə ilə əlaqədar sistem üzrə itki 6181 MVts, maliyyə ekvivalentdə hər kVts. üçün orta tarif 20 ABŞ dolları götürülməklə, 125,000 ABŞ dolları təşkil etmişdir. Bu dayanmanın elektrik enerjisinin satış qiyməti ilə onun dəyişən istehsal qiyməti arasında ancaq fərqi itirəcək Azərenerji üçün bunun xeyiri az olacaqdır. Tariflərin aşağı səviyyədə olmasını nəzərə alaraq, maliyyə üzrə xeyir əhəmiyyətli dərəcədə deyildir.

İqtisadiyyat üçün faktiki iqtisadi itki alıcıların açılma zamanı itirilmiş enerji haqqını ödəməyə hazır olmaları kimi göstəricilərdə qiymətləndirilmişdir. Bu analiz üçün ödəməyə hazır olma təxminlərə əsaslanaraq qiymətləndirilmişdir. Belə ki, enerji kəsilən zaman istehlakçılar elektrik enerjisi ilə təmin olunan xidmətləri ödəmək üçün elektrik enerjisinə alternativ olan mənbələrə müraciət edəcəklər və bu alternativ variantların dəyəri çox yüksək olacaqdır. Bu cür alternativ variantların geniş diapazonu mövcuddur, bura: isitmə məqsədi üçün qaz, neft və ağac, işıqlandırma üçün ağ neft və sənaye, əhali və kommərsiya istehlakçıları üçün dizel generatorlar olmaqla, elektrik enerjisinə alternativ mənbələr daxildir.

Azərbaycanda ödəməyə hazır olmanı üzrə qiymətləndirməni əsaslandırmaq üçün əldə oluna biləcək məhdud sayda məlumatlar vardır, lakin son məlumatlar təxmin edir ki, bu çox yuxarı ola bilər. Ölkədə təyin olunan tələbatın qiymət elastikliyi¹³ təxmini – 0.2-dir, yəni istehsal

¹³ Azərbaycanda əhaliyə verilən elektrik enerjisi tariflərinin yenidən balansasdırılmasının social mühitə, kənd icmasına və ətraf mühitə göstərdiyi qısa müddətli təsirlər, 14 İyul, 2004

qiymətlərinin 10% artımı, əgər gəlirin səviyyəsi sabit qalarsa, istehlakın 2% enməsidir. Bir çox digər ölkələrdə olan göstəricilərə görə bu çox aşağıdır. Məsələn, Hindistanda oxşar elastiklik -0.29 ilə -0.51 arasındadır, ABŞ və İngiltərə kimi inkişaf etmiş ölkələrdə bu rəqəm adətən -0.5-dir. Belə statistik qiymətləndirmə səhv təsəvvür yarada bilər, lakin aşağı mənfi qiymət elastiklikliyi əhali istehlakı çox dəyişmədən yüksək qiymətlərlə ödəməyə hazır olmasını təklif edir. Lakin, belə statistik göstəricilər əsas qiymət rəqəmlərini əks etdirmir.

Ödəməyə hazır olma müxtəlif istehlakçılar arasında, prinsipcə, istifadə olunacaq istehlakçıların orta ölçülmüş kəmiyyət diapazonuna görə dəyişəcəkdir. Qafqaz və Mərkəzi Asiya ölkələri üçün yuxarıdakı qiymətləndirmələrə əsaslanaraq, dizel ilə enerji istehsalına \$0.16/kVts, sənaye və kommərsiya üçün bu normal alternativ rəqəmdir və ağ neft ilə işıqlandırma üçün \$0.25/kVts məntiqə uyğun rəqəmdir. Enerji satışının təxminən 60% əhali və kommərsiya istehlakçılarına payına düşür, buna görə də orta ölçülmüş \$0.215/kVts kəmiyyət elektrik enerjisinin iqtisadi dəyəri kimi istifadə olunmuşdur. Buna əsaslanaraq, 2002-ci ildə açılmanın təxminən dəyəri 1.32 mln.ABŞ dolları olmuşdur.

Müasir SCADA sistemi belə açılmanı daha tez bir zamanda aradan qaldırmağa imkan vermiş olardı, bu vaxtın ən azı yarısı qədər. SCADA sisteminin lazımlılığının qiymətləndirilməsi problemi bu tip nadir hadisələrin tezliyinin qiymətləndirilməsindən ibarətdir. Bu cür hadisələrin hər dörd ildən baş verəcəyi təxmin edilərsə, SCADA/EMS sistemi 2002-ci il açılmasının dəyərini yarısını azaltmış olardı, bu da iqtisadi göstəricilərdə 0.66 mln.ABŞ dollarıdır.

Vaxtı Uzunlaşdırılmış Generasiya Xərcləri: Ötürücü sistemdə itkilərin azaldılması və elektrik enerjisinin idxalı daxil olmaqla, elektrik stansiyalarının işinin planlaşdırılmasının yüksəldilməsi mövcud enerji istehsal sistemini əlavə güclərsiz uzun müddət ərzində istismar etmək imkanı verəcəkdir. Bu cür ləngimə ilə əlaqədar yaranan xeyir bərc üzrə faizlərə ekvivalent ölçülmüş (məliyyə və iqtisadi) kapital qoyuluşları üzrə qənaətlərə ekvivalent ola bilər. Burn&Roe öz tədqiqatında təklif etmişdir ki, yeni 400 MVt-lıq buxar-qaz qurğusu 2007-ci ildə tikilsin. Bu tip blokun təxminən dəyəri 200 mln.ABŞdolları olması təxmin edilir. Bu cür xərcin bir il ərzində ləngidilməsi 10 mln.ABD-dən 30 mln.ABD-dək məliyyələşdirmə xərclərinin (məliyyələşdirmənin güzəştli və kommərsiya tipli olmasından asılıdır) ləngidə bilər. iqtisadi xeyirin az olması faizdən asılıdır həqiqətən isə faiz hansı ki alınır bilər bu məbləğin bir il ərzində investisiya hansı ki 10% olmaqla birdəfəlik 1mln.ABD ilə 3 mln.ABD arasında Burada şərti iqtisadi səmərə bu cür məbləğin bir il ərzində investisiya olunması zamanı, ləngidilən məliyyə xərclərinin 10% həcmində 1mln.ABD ilə 3 mln.ABD arasında birdəfəlik xeyirin alınmasıdır. Vaxt seçilmə ilə əlaqədar inamsızlıqla bərabər (bir çox digər amillər, bura tarif artımları, son istehlakçıların effektivliyinin yüksəldilməsi, və isitmə üçün daha aşağı dəyərli yanacaqlara girişin əldə olunmasının mümkünlüyü yeni generasiya güclərinə ehtiyacı əhəmiyyətli ləngidə bilər), əldə olunacaq xeyirin az olduğunu nəzərə alaraq, onu özünü ödəmə normaları üzrə (IRR) hesablamalardan çıxartmaq barədə qərara gəlinmişdir.

SCADA/EMS üzrə Ümumi Özünü Ödəmə Norması: 20 il ərzində SCADA/EMS sistemi üzrə ölçüləbilən gəlirlər və xərclər məliyyə və iqtisadi göstəricilərdə aşağıdakı Cədvəl 1 və 2-də əks olunmuşdur. Quraşdırılmanın 2008-ci ilin axırında sona çatacağı gözlənilməli üçün gözlənilən bütün gəlirlərin 75%-nin 2009-cu ildən yığılması təxmin edilir.

Maliyyə üzrə daxili özünü ödəmə norması (FIRR): Ötürücü sistemdə itkilərin azalmasından və planlaşdırmanın yüksəldilməsindən əldə olunacaq səmərə yanacağın orta dəyərinin proqnoz faizinə (qaz və mazut arasında nisbət 75:25) əsasən hesablanmışdır. Açılma vaxtının azalmasından əldə olunacaq səmərə tariflərə əsaslanır. 20 il ərzində SCADA/EMS sistemi üzrə bazis halında 30.2%. Bazis halda XCD (NPV) 10% diskont dərəcə ilə 53.7 mln.ABD.

İqtisadi özünü ödəmə norması (EIRR): Layihənin iqtisadi daxili rentabellik normasını qiymətləndirilməsində yanacağın maya dəyərinin aşağı salınması üçün yanacağın sərhəd qiymətlərindən istifadə olunur. Son olaraq, hər kub metr üçün 60 ABŞ dollarına nəzərdə tutulur, bu da Azərenerji tərəfindən ödənilən planlaşdırılan orta yanacaq qiymətlərindən təxmini 20% yüksəkdir. Açılmaların azalmasından əldə olunacaq səmərə alıcıların ödəmə hazırlığına əsaslanır. SCADA/EMS komponentinin İDRN (EIRR) 35.8 faiz təyin olunmuşdur. 10 faiz diskont dərəcə ilə Xalis Cari Dəyər (NPV) 73.2 milyon ABŞ dolları olacaqdır.

Cədvəl 1: Maliyyə Likvidliyi – SCADA/EMS Sistemi

		2005	2006	2007	2008	2009	2010	2011	2016	2021	2026
Cemi otirilmisdir (GVts)		25,926	26,294	26,668	27,047	27,431	27,821	28,272	30,506	32,942	38,189
Yanacaqın Deyeri/kVts (orta)		0,0217	0,0217	0,0217	0,0217	0,0217	0,0217	0,0217	0,0217	0,0217	0,0217
Yanacaqın proqnoz deyeri	\$milyon	563	571	579	587	595	604	614	662	715	829
Xercier (Borcalanın telebi ile qiymetin gesterilmesi qadaqandır)											
Gelirler											
Azaldılmış emeliyyat xercleri											
Emeliyyat xercleri uzre qenaetler						237	315	315	315	315	315
Oturme zamani azaldılmış itkiler											
Artirilmiş oturma effektivliyi	0,5%										
Azaldılmış itkiler	GVts					103	139	141	153	165	191
Yanacaq deyeri uzre qenaetler	\$'000					2,233	3,019	3,068	3,311	3,575	4,145
Paylamanın yüksek effektivliyi											
Sistem uzre toplam effektivlik	1,5%										
Yanacaq deyeri uzre qenaetler	\$'000					6,699	9,059	9,205	9,933	10,726	12,435
Neqd vesait aximi Netto (Borcalanın telebi ile qiymetin gosterilmesi qadaqandır)											
IOON	30,2%										
QTD @ 10% - \$ milyon	\$ 53,69										
Qeyd - illik gelirlerin 75% 2009-cu ile tesaduf edir											

Cədvəl 2: İqtisadi Likvidlilik – SCADA/EMS Sistemi

		2005	2006	2007	2008	2009	2010	2011	2016	2021	2026
Cemi Otirilmisdir (GVts)		25,926	26,294	26,668	27,047	27,431	27,821	28,272	30,506	32,942	38,189
Yanacaqın Deyeri/kVts (marginal)	\$/kVts	0,0268	0,0268	0,0268	0,0268	0,0268	0,0268	0,0268	0,0268	0,0268	0,0268
Yanacaqın proqnoz deyeri	\$'000	696	706	716	726	736	747	759	819	884	1 025
Xerclər (Borcalan telebi ilə qiymətlərin göstərilməsi qadaqandır)											
Gəlirlər											
Azadılmış emeliyyat xərcləri											
Azenerjinin qiymətləndirilməsi						237	315	315	315	315	315
Otirme zamani azaldılmış itkilər											
Oturmenin yüksəldilmiş effektivliyi	0,5%										
Azaldılmış itkilər	GVts					103	139	141	153	165	191
Yanacaqın dəyərində qənaətlər						2,761	3,733	3,794	4,094	4,421	5,125
Paylamanın yüksəldilmiş effektivliyi											
Sistemin əldə etdiyi toplam effektivlik	1,5%										
Yanacaqın dəyərində qənaətlər						8,283	11,201	11,382	12,282	13,263	15,375
Genis-miqyaslı acılmanın sürəkliyinin azaldılması											
Azadılmış acılmalardan qənaətlər											
									660		
Neqd Vesait Aximi Netto (Borcalanın telebi ilə qiymətlərin göstərilməsi qadaqandır)											
IOON	35,8%										
QTD @ 10% - \$ milyon	\$ 73,22										
Qeyd - illik gəlirlərin 75%-i 2009-cu ilə təsadüf edir											

Əldə olunmuş bazis halı nəticələrinin həssaslığını aşağıda göstərilmiş əsas təxminlərə qarşı yoxlanılmışdır:

- kapital xərcin 50% artması;
- elektrik enerjisi üzrə “alçaq” tələbatın istifadəsi (bax Qoşma 2, Əlavə 1);
- effektivliyin az yüksəldilməsi (planlaşdırmanın yaxşılaşdırılması yolu ilə, ötürücü itkilərin azalması)

Həssaslığın analizi Cədvəl 3-də verilmişdir. Bütün hallarda ödəmə normaları In all instances, the rates of return remain satisfactory despite significant adverse changes in the base case assumptions.

Cədvəl 3: SCADA/EMS üzrə Həssaslıq Analizi

Bazis üzrə dəyişiklik	FIRR	EIRR
Heç bir	30.2%	35.8%
kapital xərcin 50% artması	21.4%	26.1%
Elektrik enerjisinə alçaq tələbat proqnozu	27.7%	33.0%
Effektivliyin ümumi artımı - 1.5% ¹	23.9%	28.7%

Qeyd: Bazis halda effektivliyin ümumi artımı 2% olması təxmin edilir

1.2 B Komponenti: Ötürücü Sistemin Bərpası

Bu sub layihələrin qiymətləndirilmiş ümumi dəyəri (qiymətin göstərilməsi qadağandır) milyon ABŞ dollarıdır, bura: ötürücü xətlər üçün (qiymətin göstərilməsi qadağandır) milyon ABD, transformatorların dəyişdirilməsi (qiymətin göstərilməsi qadağandır) milyon ABD, və gərginliyin tənzimlənməsi və qurğuların quraşdırılması üçün (qiymətin göstərilməsi qadağandır) milyon ABD daxildir.

Ötürücü Xətlərin Bərpası: Mövcud yüksək gərginlikli ötürücü xətlərin bərpası iki yol ilə sübut olunur:

- xətlər imkanları daxilində işləyirlər və tələbatın artması ilə enerji təchizatı artacaq və nəticə kimi xətlərin gücü artırılmalıdır;
- xətlərdə qəzaların azaldılması açılımların azalmasına gətirib çıxarır.

Birinci yol hazırda təklif olunan layihələrin heç birinə tətbiq olunmur. Sistem üzrə analizin aparılmamasına baxmayaraq, Burns&Roe şirkətinin sistemin qiymətləndirilməsi üzrə apardığı analiz hazırda tam gücü ilə işləyən xətləri müəyyən etmişdir. Bütün xətlər 110 kV-luq olmuş və burada layihədə adı çəkilən xətlərdən heç biri olmamışdır. Bu xətlər üzrə təmin olunmuş məlumatlar təsdiq etmişdir ki, hazırki pik cərəyanlarda bu xətlərin heç biri layihə üzrə maksimuma çatmamışlar. Əlavə olaraq, qeyd edilməlidir ki, yaxşılaşdırma tipi kimi təsvir olunan, bir qayda olaraq, dayaqların əvəzlənməsi, imkanların artırılması tipi demək deyildir.

Təklif olunmuş layihələrin səmərələri, ilkin olaraq, avadanlıqlarda mütəmadi yaranan pozğunluqların nəticəsi kimi açılma vaxtlarının azalmasından əmələ gəlir. Məlumdur ki, bərpa olunacaq xətlərdə axırncı üç il ərzində enerji açılmaları ilə nəticələnən qəzalar baş vermişdir. Cədvəl 4 2003-cü ildə açılmalar barədə məlumatı əks etdirir və göstərir ki, layihəyə daxil olan xətlərdə açılmalar tez-tez və sürəkli davam etmişdir.

Cədvəl 4: Ötürücü Xətlərin Fəaliyyəti: Açılmalar və Sürəklilik

Xəttin adı	2003-cü ildə açılmaların sayı	Ümumi Boş dayanmalar (saat)
500 kV-luq 2 Abşeron	12	47
330 kV-luq 1 Abşeron	16	138
220 kV-luq 1 Əli-Bayramlı	15	83
220 kV-luq Səngəçal	13	71
220 kV-luq 3 Abşeron	9	45.5
20 kV-luq 4 Abşeron	8	45.5
220 kV-luq 1 Mingəçevir	17	131.5
220 kV-luq 2 Mingəçevir	10	93
220 kV-luq 2 Əli-Bayramlı	6	60
220 kV-luq Ağsu	8	54
330 kV-luq 4 Əli-Bayramlı	6	32
110 kV-luq 1 Ələt ¹	5	17
110 kV-luq 1 Bərdə ¹	5	624
110 kV-luq 1 Kürdəmir	20	148

Ələdə olunan bu məlumatları açıqlamır: (i) açılmanın nəticəsində xətt vasitəsi ilə ötürüləcək gücə ekvivalent gücün itirilməsi ilə baş verdimi; (ii) bu gücün səviyyəsi nə qədər idi; (iii) nə qədər qüsurlar əvəzlənəcək/bərpa olunacaq avadanlıqların səbəbindən yaranmışdır. Lakin, açılmalar üzrə məlumatların analizi təxmin edir ki, bu açılmalar bir il ərzində və günün müxtəlif vaxtlarında baş vermişdir. Buna görə təxmin edilmişdir ki, açılmalar baş vermişdir orta olaraq xətlərin bazis yükləməsi vaxtı açılmışlar, bu göstərir ki ötürülən pik cərəyanının 62% və bu gücün 50% faktiki olaraq istehlakçılar üçün itirilmişdir, bu o deməkdir ki, yəni 50% istehlakçılara alternativ yolla ötürülmüşdür. Əgər açılmalar daha çox yüklənmə dövründə baş verərsə, itkilərdə bir o qədər çox olacaqdır. Ümumi itirilmiş MVts-lar cədvəl 5-da göstərilmişdir.

Cədvəl 5: Açımların və Enerji İtkilərinin Qiymətləri

Xətlər	Pik cərəyan (A)	Bazis cərəyan ¹ (A)	Ümumi Açılma (saat)	İtirilən Enerji ² (Mvt)
500 kV-luq 2 Abşeron	925	573	47	10,483
330 kV-luq 1 Abşeron	700	434	138	15,387
220 kV-luq 1 Əli-Bayramlı	950	589	83	8,373
220 kV-luq Səngəçal	800	496	71	6,031
220 kV-luq 3 Abşeron	600	372	45.5	2,899
220 kV-luq 4 Abşeron	600	372	45.5	2,899
220 kV-luq 1 Mingəçevir	550	341	131.5	7,680
220 kV-luq 2 Mingəçevir	600	372	93	5,925
220 kV-luq 2 Əli-Bayramlı	800	496	60	5,097
220 kV-luq Ağsu	550	341	54	3,154
330 kV-luq 4 Əli-Bayramlı	950	589	32	4,842
110 kV-luq 1 Bərdə ¹	250	155	624	8,283

1) 62% pik cərəyan

2) bazis cərəyanının 50% gərginlik vaxtına 1,73 güc əmsalına vurmaqla açılma vaxtının davam etməsinin 0.9 dəfə olduğu təxmin edilir

Qeyd: 2003-cü ildə itirilmiş MVts üzrə Azərenerjinin məlumatları hesablanmış kəmiyyətdən xeyli yüksəkdir. Hesablanmış kəmiyyətlər gəlirlərin analizində istifadə edilmişdir.

Yuxarıda qeid edildiyi kimi, orta topdansatış tairfləri ilə istehlakçılar üçün itirilmiş elektrik enerjisinin kəmiyyətinin qiymətləndirilməsi göstərəcəkdir ki, Azərenerjinin hazırki tariflərin dəyişən təchizat qiymətlərindən az olduğu bir vaxtda təklif edilmiş təkmilləşdirmələrin həyata keçirilməsindən Azərenerji üçün maliyyə xeyri kiçik və ya heç olmayacaqdır. Paylayıcı şirkətlərin də maliyyə itkiləri olacaqdır və istehlakın həqiqətən labüd olduğunu və sadəcə olaraq başqa vaxta ləngidilə bilməzəmzliyini nəzərə alaraq, bu itkiləri paylanan elektrik enerjisinin maya dəyəri ilə onun satış dəyəri arasında olan orta fərq üzrə hesablanıla bilər. İqtisadi göstəricilərdə açımlar ilə əlaqədar yaranan itkilərin daha çox dəyəri vardır.

Son təxminlər təklif edilmiş təkmilləşdirmələrin açımların azaldılmasına imkan verəcək dərəcəyə aiddir. Guman edilir ki, Azərenerji qəzalarının ancaq ümumi adi səbəblərinin diaqnozunu aparmışdır, lakin hamının yox. Buna görə də təxmin edilirdi ki, 2003-cü ildə baş vermiş açımların 60%-i təklif olunmuş təkmilləşdirmələr vasitəsi ilə aradan qaldırılacaqdır.

Cədvəl 6-da bu ehtimallar əsasında müxtəlif ötürücü komponentlərinin İDRN (EIRR) verilir.

Cədvəl 6: Ötürücü Xətlər üçün Qiymətləndirilmiş İqtisadi Özünü Ödəmə Norması

Xətlər	Xərc \$'000*	Xeyir \$'000	İDRN (20 il)	@10% \$'000
500 kV-luq 2 Abşeron		1,352	62%	6,067
330 kV-luq 1 Abşeron		1,985	68%	9,058
330 kV-luq 4 Əli-Bayramlı		625	441%	3,082
220 kV-luq 1 Əli-Bayramlı		1,080	53%	4,662
220 kV-luq Səngəçal		778	61%	3,876
220 kV-luq 3 Abşeron		374	91%	2,126
220 kV-luq 4 Abşeron		374	64%	1,873
220 kV-luq 1 Mingəçevir		991	162%	4,838
220 kV-luq 2 Mingəçevir		764	176%	3,744
220 kV-luq 2 Əli-Bayramlı		658	69%	3,339
220 kV-luq Ağsu		407	65%	1,885
110 kV-luq 1 Bərdə ¹		1,068	116%	5,566
Ümumi Ötürücü Komponent üzrə		10,456	76%	26,273

*) Borcalanın tələbi ilə xərclərin qiymətlərinin göstərilməsi qadağandır.

Cədvəl 6-dan görüldüyü kimi 110 kV-luq 1 Ələt xəttini çıxmaq ilə təklif edilmiş təkmilləşdirmələr yüksək İDRN təklif edir, xüsusən də kiçik investisiyalar üçün (1 və 2 Mingəçevir, 4 Əli-Bayramlı). Mümkündür ki bu kiçik investisiyalar üçün açılma vaxtlarının azalma dərəcəsi hesablamalar üçün təxmin edilən 60%-dən aşağı olacaqdır, belə ki, bu qiymət ehtibarlı əsasən malik deyildir. Lakin, İDRN böyük investisiyalar üçün də yüksəkdir və bu halda qəza hallarının çoxuna səbəb olan dayaqların əvəzlənməsi təxmin edilən təkmilləşdirmələrin əldə olunmasına səbəb olacaqdır. Ümumiyyətlə, bu xətlərin malik olduğu aydın çatışmamazlıqları ilə birlikdə, elektrik enerjisinin iqtisadi dəyərinə əsaslanan qəza hallarının yüksək dəyəri investisiyaların bütün hallarda İDRN yüksək olacağını təxmin edir.

Elektrik enerjisinin “ödəməyə hazır olma” dəyərinin qiymətləndirilməsi ilə əlaqədar, danışıqlar üçün hər zaman otağın olduğunu nəzərə alaraq, imkan verilməyən açılmaların iqtisadi dəyərinin müşahidə edilmiş minimum dəyərə, yəni orta pərakəndə satış tarifinə ekvivalent olmasını təxmin edilərək, həssaslıq analizi yerinə yetirilmişdir. Bu, ötürücü xətlərin bərpası komponentlərinin İDRN-nü kəskin şəkildə azaltmışdır. Lakin, ancaq, 12 sublayihədən 3-ü 10%-dən aşağı (220 kV-luq 1 Əli-Bayramlı, 220 kV-luq Səngəçal və 220 kV-luq 4 Abşeron xətləri) təşkil etmiş və paket halda cəmi orta ölçülmüş norma 13.8% olmuşdur.

Transformatorların əvəzlənməsi: Transformatorların əvəzlənməsi ilə əlaqədar dörd layihə bu komponentə daxil edilmişdir. Bunlardan 3-ü transformatorları istehsal güclərinə yaxın olan yarımstansiyalara aiddir. Dördüncü, Müşviq təcillik baxımından bir o qədər vacib deyil, belə ki, onun sonrakı 10 il ərzində artacaq yükləri ödəmək imkanına malik kifayət gücdə transformatorlara malikdir. Bununla belə, yarımstansiyanın yerləşdiyi

münasib ərazini və burdan bir sıra vacib dövlət obyektlərinin qidalandığını nəzərə alaraq, ancaq təhlükəsizlik və etibarlılığın təmin olunması baxımından yarımstansiyanın bərpaya ehtiyacı sübut oluna bilər.

Yarımstansiyalarda transformatorlar istehlakçıları elektrik enerjisi ilə təchiz edən dar aralıq formasında fəaliyyət göstərilir. Transformatorlar yüklənərsə, yükün axımını nizamlamaq üçün birinci olaraq istehlakçıların məhdud sayı pik yüklənmə zamanında, əgər yüklənmə davam edərsə, daha çox sayda istehlakçılar daha uzun müddət üçün enerji məhdudiyyətinə məruz qala bilər. Əgər transformatorun gücü pik tələbatın təxmini 62% həddindədirsə, bu milli yüklənmə səviyyəsinin bazis göstəricisidir, faktiki bu, tədricən potensial tələbatın artması ilə artacaq, yarımstansiyanın yük axımının sabit itirilməsi vəziyyətinin yaranmasıdır.

Nəticədə güc əldə olunmamışdırsa, transformatorun artmış gücündən xeyir azdır. Bu da transformatorun özünün artırılmış məhsuldarlığında çox olmayan səviyyəni təşkil edir. Lakin, əgər güc əldə olunmuşdursa və əlavə yük atılmışdırsa, bu zaman xeyir artacaqdır və o il ərzində güc artması ilə bərabər çoxalacaqdır. Təklif olunmuş layihələrin hər biri üçün özünü ödəmə normalarının dəqiq hesablanması spesifik yarımstansiya tərəfindən xidmət göstərilən ərazi üçün yük-tələbat əyrisi üzrə məlumatları və həmçinin bu ərazi üçün tələbat proqnozunu barədə məlumatları tələb edir. Bu məlumatların olmaması şərtində milli yük-tələbat əyrisi milli tələbatın bazis proqnozu kimi qəbul olunacaqdır. Bu milli yük-tələbat əyrisinin təhlili göstərir ki, burada yükün bazis səviyyəsi ilə (pik tələbatın 62%) və pik yüklənmə arasında yükün xətti dəyişməsinə məntiqə uyğun yanaşma mövcuddur. Tələbatın bazis proqnozunun 1.4% illik artım tempi 2010-cu ildən sonra illik 1.6% artacağı, məcburi açılımların artan tələbatı (transformatorların bazis üzrə yüklənməsinin indiki pik yüklənmələrə ekvivalent olan nöqtəsi) yeni transformator güclərinin olmaması şəraitində 20 il ərzində əldə olunmayacağı mənasını verir.

Hər bir təklif olunmuş layihənin iqtisadi daxili rentabellik normasını qiymətləndirmək üçün aşağıdakı təxminlər nəzərə alınmalıdır:

- 1) əvəzlənən transformatorlar 2006-cı ildə quraşdırılacaq;
- 2) mövcud transformatorların tam yükü ilə 2006-cı ildə qənaətbəxş gücün olmaması səbəbindən məcburi açılımlar 0-dır;
- 3) illik 1.4% olmaqla tələbat beş il üçün artır, və sonrakı illik 1.6% ilə;
- 4) ilkin olaraq, bu artım yükün 5%-i atılacaqdır, sonradan hər il 1% artmasını nəzərə alaraq (öz əməliyyat gücündə işləməyən Müşviqi çıxılmaqla); və
- 5) on illik qiymətləndirmə dövrü istifadə olunur

Cədvəl 7-də layihənin hər bir yarımstansiya üzrə bu qiymətləndirmənin nəticələri əks olunmuşdur

**Cədvəl 7: Transformatorların Əvəzlənməsi üçün İqtisadi Özünü
Ödəmə Normaları**

Yarımstansiyalar	Kapital Xərc ABD'000*	Orta İllik Gəlir ABD'000	İDRN (10 il)	XCD @10% ABD'000
330 kV-luq İmişli		5,043	46%	16,067
330 kV-luq Gəncə		2,521	64%	8,536
110 kV-luq Qala		1,765	51%	4,990
220 kV-luq Muşviq		-	NA	(3,487)
Cəmi Transformatorlar Komponenti üzrə		9,329	35%	15,021

*) Borcalanın tələbi ilə qiymətlərin göstərilməsi qadağandır.

Transformatorların əvəzlənməsi layihələrinin iqtisadi özünü ödəmə normaları (EIRR) təxmin edilən açılımların iqtisadi dəyərlərinə həssasdırlar. Məsələn, istehlakçıların “ödəməyə hazır olma” dəyəri \$0.215-dən hazırda mövcud orta tarifə (\$0.021/kVts) qədər azalarsa, dörd sublayihənin İDRN norması mənfi 3-ə düşəcəkdir. Əgər “ödəməyə hazır olma” dəyəri \$0.1-ə olarsa, İDRN norması üzrə paket 20% olacaqdır.

Yarımstansiyaların bərpası üzrə digər layihələr: Guman edilir ki, Yaşma və Yevlaxda paylayıcı quruluşların və Ələtdə batareyaların əvəzlənməsi “təcili-vacib” layihələr yarımstansiyaların tamlığının qorunması üçün nəzərdə tutulmuşlar. Avadanlıqların çatışmamazlıqları ilə əlaqədar yaranacaq qəzalara əvvəlcədən görməyin çətin olması ilə bərabər, bütün hallarda avadanlıqlar özlərinin iqtisadi ömürlərindən uzaqdırlar. Bu stansiyalarda təchizatın tam kəsilməsi açılımların və əlavə yaranan itkilərin yüksək dəyərlərin yaranmasına səbəb ola bilər.

Maliyyə Daxili Rentabellik Norması: İlkin bölmələrdə əsas diqqət təklif olunmuş ötürücü xətlərin bərpası və transformatorların dəyişdirilməsi sub layihələri üzrə iqtisadi özünü ödəmə normalarında yönəlmişdir. Buradan da hazırkı vəziyyətdə layihələrin yerinə yetirilməsindən Azərenerjiyə məhdud həcmdə gəlirlərin daxil olacağı göstərilmişdir. Hazırkı tarif səviyyələrində, təchizat üzrə dəyişən xərclərin tarif səviyyəsinə çox yaxın olması səbəbindən, əlavə yüklərin idarə olunması bacarığının (məcburi açılımların azaldılması və güc məhdudiyətlərinin aradan qaldırılması yolu ilə) şirkətin rentabelliyyətinə kiçik təsiri olacaqdır. Hazırkı zamanda bərpa işlərinin yerinə yetirilməsindən gələn maliyyə üzrə əsas xeyir, avadanlıqların daha fəaliyyət göstərə bilməməsi zamanı eynilə və ya potensial olan daha böyük investisiyalardan qaçılma bacarığının olmasıdır.

Lakin, tariflər çəkilən istehsal xərclərini tam ödəmə səviyyəsinə qədər artarsa, elektrik enerjisinin açılımları azalarsa və müvafiq olaraq, elektrik enerjisinin satışı artarsa, bu elektrik enerjisi ilə təchiz olunmuş əlavə vahidlər üçün təchizat üzrə tam və dəyişən xərcləri arasında fərqlərə bərabər maliyyə gəlirlərinin əldə olunmasına səbəb olacaqdır. Gəlirlərin məbləği dəyişən xərclərə təyin olunmuş dərəcədə enib-qalxmalar və yük artımları ilə əlaqədar illik əsasda dəyişəcəkdir. 2010-cu il üçün göstərilən rəqəmlərdə

ötürücü sistemin bərpasından əldə olunacaq maliyyə gəliri 4.2 milyard manat (təxmini 810,000 ABD) səviyyəsində qiymətləndirilir. Təxmin edilsə ki, 2008-ci ildə tariflərin səviyyəsi çəkilən istehsal xərclərini tam ödəmə səviyyəsinə çatacaq və həmçinin, təxmin edilsə ki, hazırkı layihəni nəzərə almayaraq, eyni dəyərdə avadanlıqlar 5 il ərzindən gec olmayaraq əvəz edilir/bərpa olunur, onda, ötürücü sistemin bərpası komponenti üçün MDRN norması 9.1 faiz olacaqdır. Əgər tariflər 2010-cu ilə qədər çəkilən istehsal xərclərini tam ödənilməsi səviyyəsinə çatdırsa, onda MDRN 8.7 faiz olacaqdır. Azərenerji üçün aşağı MDRN norması problem kimi (tariflərin aşağı olması problemindən başqa) nəzərdə tutulmamalıdır, belə ki, yüksək İDRN norması açılımlar ilə qarşılaşmamaq üçün istehlakçıların ödənişləri yerinə yetirmək arzusunun əks etdirir.

Cədvəl 8: Özünü Ödəmə Normalarının Xülasəsi

	İDRN	XCD, milyon ABD	MDRN	XCD, milyon ABD
SCADA/EMS	36%	73.2	30%	53.7
Ötürücü Sistemin Bərpası	48%	83.8	~9%	(0.7)
Ötürücü xətlərin bərpası	76%			
Transformatorların dəyişdirilməsi	35%			
Cəmi Layihə üzrə (A-D Komponentlə)	39%	145.1	21%	41.7

2. Karbon Maliyyələşdirmə Planı

Layihə, istilik elektrik stansiyalarında SCADA/EMS sisteminin quraşdırılması ilə əlaqədar, parnik qazları üzrə (GHG) atılmaların azaldılması formasında global iqtisadi gəlirlər təklif edir. Mümkündür ki, bu iqtisadi gəlirlərinin bir qisminin hazırda üzərində iş aparılan Karbon Maliyyələşdirmə Layihəsi vasitəsi ilə maliyyə gəlirlərinə çevrilsin. Belə ki, atımlarda yaranan azalmalar karbon kreditlər kimi digər ölkələrə satıla bilər. Bu cür Karbon Maliyyələşdirmə Planının tətbiq edilməsi investisiya layihələ üçün MDRN normasını 0.8 faiz artıraraq 21.6 faizə qədər çatacaq və investisiya layihələrinin Xalis Cari Dəyəri 10% diskont dərəcəsində 2.8 milyon ABŞ dolları artaraq 44.5 milyon ABŞ dollarına çatacaq. Karbon ticarəti ancaq 2010-2012-ci illəri, yəni, Kioto protokolu son dövrünü daxil edir. Lakin, ola bilər ki, razılaşma bir neçə il sonraya qədər uzadılsın. Karbon Maliyyələşdirmə Layihəsi üzrə şərtlərə Əlavə 12-də baxmaq olar.

3. Azərenerjinin Maliyyə Dayanıqlığı

3.1 Hazırkı Maliyyə Vəziyyəti

Azərenerjinin yaxın illərdə nəqd vəsait üzrə əhəmiyyətli dərəcədə defisiti yığılmışdır. Bunun üç əsas səbəbi vardır: (i) topdansaş tariflər əməliyyat xərclərini tam ödəmək üçün adekvat səviyyədə deyildir; (ii) paylayıcı şirkətlərin özəl idarəçiliyinə verilməsi ilə əlaqədar bağlanmış müqavilə şərtlərinə əsasən enerji yığımlarının səviyyəsi 100 faizdən aşağı olmasına icazə verir; və (iii) əsas fondlar, uçot kitablarında öz ilkin dəyərləri ilə qeyd edilən, investisiya üzrə tələbləri ödəmək üçün, hətta əhəmiyyətli dərəcədə xarici maliyyə institutlarından güzəştli borcalmaq yolu ilə, amortizasiya ayırmaları üzrə qeyri-qənaətbəxş nəqd vəsait axımının təmin edilməsindən. Nəticədə, şirkətin təchizatçılar üzrə 15 trilyon manatdan (3 mlrd.ABD artıq) artıq kreditör borcu yığılmışdır və o, yanacağı alınmasına görə Hökumətin maliyyə transferlərindən və borc xidməti kimi öhdəlikləri yerinə yetirmək üçün digər nəqd vəsaitlərdən asılıdır.

Aşağıdakı Cədvəl 9-da şirkətin mühasibat balansı (mühasibat üzrə yerli standartlara müvafiq olaraq) üzrə 2002 və 2003-cü illər üzrə yekunları verilmişdir. Qeyd edilməlidir ki, debitor borcların əhəmiyyətli hissəsi (və müvafiq məbləğdə kreditör borclar) Hökumətlə, paylayıcı şirkətlərin yeni menecmenti və Azərenerjinin kreditörləri ilə əldə olunan razılaşmaya əsasən 2001-ci ildə “dondurulmasına” baxmayaraq, 2003-cü ildə debitor və kreditör borclar hazırkı əməliyyat üzrə artaraq, fəaliyyətlə əlaqədar yaranan ümumi borcun¹⁴ yarısından çoxunu təşkil etmişdir. Əlavə olaraq, əsas fondların ümumi dəyəri (hazırkı tamamlanmamış işlər də daxil olmaqla) 3.9 trilyon manat, və ya təxmini 920 mln.ABD həcmində qitmətləndirilmişdir. 5,500 MVt həddində generasiya gücünün minimum bərpa dəyəri 2.75 mlrd.ABD (hər bir kVtın dəyərinin 500 ABD olmasını təxmin edərək) təşkil edə bilər. Ümumi amortizasiya ayırmaları 2003-cü ildə təxmini 100 mlrd.manat (25 mln.ABD) olmuşdur. Beləliklə də, yeni investisiyalar ilkin olaraq xarici kreditlər hesabına yerinə yetiriləcəkdir. Bu kreditlər üzrə ödənilməmiş saldo, 2003-cü ilin axırına görə 1,535 mlrd.manat və ya təxmini 310 mln.ABD təşkil etmişdir.

¹⁴ Avadanlıq və materialların alınması və həmçinin, istilik və elektrik enerjisinin satışı üzrə kreditör borclar.

Cədvəl 9: Azərenerjinin Mühasibat Balansı (mlrd.manat)

Aktivlar	2002	2003	Ohdaliklar və Kapital.	2002	2003
Asas Fondlar			Xususi Kapital		
Binalar, qurqular və avadanl.	2 652,3	3 898,5	İlkin Kapital	635,0	483,3
Yigilmis Amortizasiya	(1 372,8)	(1 475,1)	Kapital Qoyuluşları	2 524,9	3 498,2
Tamamlanmamış Kapital	1 703,8	640,4	Bolusdurulmamış Gəlirlər	(1,1)	(425,5)
Saldo Stansiya & Avadanlıq	2 983,3	3 063,7	Cari dövrün gəlirləri	(424,3)	(1 005,3)
			Digər Ehtiyatlar	0,2	0,2
Digər Uzun Müddətli Aktivlar			Cami Kapital	2 939,3	2 702,5
Uzadılmış Dövriyyə uzra					
Borclar (dondurulmuş debitor)	7 422,4	7 422,4	Uzun müddətli Ohdaliklar		
Digər	0,0	0,0	Yerli Borc	286,3	598,2
Cami digər	7 422,6	7 422,6	Xarici Borc	1 374,8	1 535,4
			Uzadılmış Borclar		
Dövriyyə Fondlar			(dondurulmuş kreditor)	7 422,4	7 422,4
Kassa və Bank Hesabları	70,4	112,3	Cami Uzun müddətli Ohdalik	9 083,4	9 556,0
Debitor borc - Parakandasatis	7 762,1	9 288,4			
Digər Dövriyyə fondları	1,3	1,4	Cari Ohdaliklar		
Cami Dövriyyə Vasaitləri	9 094,6	10 753,0	Kreditor Borclar - Komer.	6 709,3	7 896,2
			Digər Cari Ohdaliklar	0,8	1,1
Umumi Aktiv	19 500,5	21 239,3	Cami Cari Ohdaliklar	7 477,7	8 980,8
			Umumi Ohdaliklar və Kapital	19 500,5	21 239,3

3.2 Maliyyə Layihələndirmələri

Mülahizələr: Azərenerji üçün maliyyə layihələşdirmələri 2000-2004-cü illərdə şirkətin fəaliyyətinə və maliyyə statistik göstəricilərinə və Burns&Roe şirkətinin sistemin planlaşdırılması tədqiqatında verilən yük proqnozlarına əsasən hazırlanmışdır. Digər təxminlərə aşağıdakılar aiddir:

- Maliyyə layihələşdirmələri maliyyəçilərlə hazırda razılaşdırılan təklif olunmuş kapital nqoyuluşlarını daxil edir. Xüsusən də bura: (i) Borcalan tərəfindən təyin olunmuş bütün ötürücü sistem üzrə sub layihələr daxil olmaqla, təklif olunmuş BYİB layihələrini (ümumi dəyəri 55.6mln.ABD, ondan 48 mln.ABD BYİB maliyyəsi); (ii) KfW ilə razılaşdırılmış yarımstansiyaların bərpası proqramını (ümumi dəyəri 15 mln.ABD); və AYİB ilə danışıqların davam edildiyi AzDRES-də generasiya vahidlərinin bərpası (ümumi qiymətləndirilmiş dəyəri 118 mln.ABD, ondan 100 mln.ABD AYİB maliyyəsi) layihələri daxildir.
- Əlavə olaraq, Hökumət və Azərenerji üç əsas layihələrə maliyyənin ayrılması üzrə danışıqlar aparır: (i) Sumqayıtda gücü 500 MVt olan elektrik stansiyasının tikintisi (dəyəri 300 milyon Avro, Bayeriç bankı tərəfindən maliyyələşdiriləcək), Şimal DRES-də gücü 400 MVt olan 2-ci qurğunun tikintisi (dəyəri 300 milyon ABD, YBƏB tərəfindən maliyyələşdiriləcək); və İrana çəkiləcək yeni YG ötürücü

xətt (dəyəri 75 milyon ABD, İran İnkişaf Bankı tərəfindən maliyyələşdiriləcək). Hökumət tərəfindən maliyyənin istifadəsini təxmin edərək, bu investisiyalar həmçinin, analizə daxil edilmişlər.

- Təxmin edilirdi ki, Azrenerji də öz tərəfindən kapital qoyuluşu layihələrində hər il dəyərdən düşmənin həddində investisiyalar yatıracaqdır, belə ki, 2004 və 2005-ci illərdə hər il üçün 25 faiz, 2006-cı ildə 50 faiz və 2007-ci ildə 100 faiz və s. 2005-ci ildən başlayaraq, əsas fondların amortizasiyası, generasiya və ötürücü avadanlıqların mühasibat kitablarında göstərilmiş dəyərlərinin 4 faiz həcmində və digər aktivlər üzrə isə 6 faiz həcmində təxmin edilmişdir.
- Təbii qazın qiyməti 2005-ci ildə artaraq hər m³ üçün 60 ABŞ dolları təşkil etmiş və 2006-cı ildən isə onun qiymətinin hər m³ üçün 61 ABŞ dolları olacağı təxmin edilmişdir. Bundan əlavə, beynəlxalq inflyasiya ilə əlaqədar onun rtacağı da təxmin edilir.
- Əməliyyat xərclərinin elektrik enerjisi üzrə satışın artma proporsiyalarına müvafiq artacağı təxmin edilir və daxili inflyasiyanın (hər il 2.5%) illik proqnozuna əsaslanaraq, tənzimlənmişdir. Təklif edilmiş BYİB layihəsinin yerinə yetirilməsindən xərclər üzrə yaranan qənaətlər də həmçinin, proqnoza daxil edilmişdir. Bununla bərabər, digər kapital qoyuluşlarından yaranacaq potensial qənaətlər proqnoza daxil edilməmişlər.
- Hökumət tərəfindən yaxın illərdə Azərenerjinin subsidiyalar ilə təmin edildiyi bir vaxtda, maliyyə vəziyyətinin layihələndirilməsi məqsədləri və tarif tələbləri ilə bərabər tələb olunan dövlət dəstəyinin gücləndirilməsi, bunlar analizdə nəzərə alınmamışlar.
- Paylayıcı şirkətlər tərəfindən ödəmələrin qrafikləri bağlanmış müqavilələrdən götürülmüşdür. Təxmin edilən orta ölçülmüş yığılım dərəcəsi aşağıda verilmişdir:

2004	2005	2006	2007	2008	2009	2010	2011	2012
50%	58%	69%	71%	82%	90%	101%	115%	115%

3.3 Maliyyə Dayanıqlığının Əldə Olunması Variantları

Maliyyə layihələşdirmələri, topdansatış tariflərdə artımların olmaması şəraitində Azərenerjinin yaxın 10 il ərzində illik 2 trilyon manat (təxmini 400 milyon ABD) olmaqla, nəqd vəsait üzrə defisitləri toplamaqda davam edəcəyini göstərdi. Bu defisitlərin əməliyyat üzrə xərclərdən yarandığı, lakin bu defisitlər yaranması, paylayıcı şirkətlərin aldıkları elektrik enerjisi haqlarının ödəməməsindən, borc xidməti üzrə öhdəliklərin mövcud olmasından və kapital xərclərinin özünü maliyyələşdirilməsindən daha da güclənmişdir. Əgər tariflər hazırkı səviyyədə saxlanılarsa, Hökumət, şirkətin maliyyə dayanıqlığının saxlanması üçün maliyyə yardımlarının verilməsini davam etdirəcəkdir. 2005-2010-cu illər ərzində, ümumi 13.8 trilyon manat tələb olunacaqdır.

Alternativ variant kimi, hökumət, Azərenerjiyə çəkdiyi bütün əməliyyat xərclərini ödəməyə imkan elektrik enerjisinin topdansatış tariflərinin artırmaq yolu ilə maliyyə yardımlarını azaltmaqdır. “Çəkilən istehsal xərclərini tam ödəyən” tariflər amortizasiya xərcləri və əsas fondların qalıq dəyərlərinin 5 faiz illik gəlirləri ilə bərabər, əməliyyat xərclərini (yanacaq, materiallar, təmir və texniki xidmət, inzibati xərclər, vergilər, borc üzrə faizlər) örtəcəkdir. Yuxarıda təsvir edilmiş maliyyə üzrə mülahizələrə əsaslanaraq, 2005-ci il üçün çəkilən istehsal xərclərini tam ödəməyə imkan verən tarifi bir kVts-nın qiyməti 132 manat səviyyəsində təyin edilmişdir¹⁵. 2010-cu ilə qədər bu tarifi bir kVts üçün 174 manat olmalıdır. Buna baxmayaraq, əgər hətta Hökumət çəkilən istehsal xərclərinin tam ödəməyə imkan verən tarifləri təcili tətbiq edərsə belə, (a) paylayıcı şirkətlərin müqavilədə əks olunmuş aldıkları elektrik enerjisinin tam dəyərinin ödəməməsindən və (b) kapital qoyuluşu öhdəlikləri ilə müqayisədə amortizasiya normasının aşağı olması səbəblərindən, Azərenerji, nəqd vəsait axımları üzrə defisitlərdən əziyyət çəkməyə, beləliklə də, 2005-2010-cü illər ərzində toplam 3.7 trilyon manat həcmində maliyyə yardımlarına ehtiyacı olacaqdır.

Yuxarıdakı analizlər ancaq tarif artımlarını nəzərdə tutmaqla bərabər, Azərenerjinin zəif maliyyə vəziyyətinin yaxşılaşdırılmasını həll etmir. Maliyyə dayanıqlığına nail olmaq üçün əlavə işlər görülməsi tələb olunur. Nəzərdən keçirilmiş tədbirlər aşağıdakı kimidir:

(i) Əməliyyat effektivliyinin artırılması: Region üzrə standartlara görə Azərenerjinin istismar xərcləri həddindən artıq deyildir. Hətta “istehsal xərclərini tam ödəməyə” imkan verəcək topdansatış tarif hər bir kVts üçün 3 ABŞ sentindən azdır – lakin yuxarıda qeyd edildiyi kimi, bu tarifi köhnəlmə komponenti fondların tam bərpa dəyərinə tipik deyildir. Yüksəlişin əldə olunacaq sahələrin hələ də olduğunu, onlardan: elektrik stansiyalarının rentabelli dispetçerləşdirilməsi, xətlərdə itkilərin azaldılması, açılmaların azaldılması, daha ciddi avadanlıqlarda qəza hallarının qarşısını almaq üçün planlaşdırılan texniki xidmətin təkmilləşdirilməsi, daha yaxşı maliyyə idarəedilməsi və planlaşdırma, daha yaxşı idarəetmə yolu ilə işçi heyətin azaldılması, rabitə sistemləri və avtomatlaşdırma. Təklif olunmuş layihə bu problemlərin bir çoxunun həllinə yönəlmişdir. USAİD-in enerji sektoruna texniki yardım proqramı altında davam edən texniki köməkdarlıq effektivliklə əlaqədar digər harahatlıqlara müraciət etməyə kömək edəcəkdir.

(ii) Yığımların artırılması: Yığımlarda yüksəlişin əldə olunması şirkətə nəqd vəsait axımı üzrə problemlərin və bununla əlaqədar yığılmış borcların məsələsini həll etməyə kömək edərdi. Lakin, paylaşdırıcı şəbəkələrin özəl idarəçiliyə verilməsi ilə əlaqədar bağlanmış müqavilələrin şərtlərinə görə Azərenerjinin yığım faizi 2010-cu ilə qədər 100 faizdən aşağı olması ilə məhdudlaşdırılmışdır. Şirkət yığımların qəbul olunacağına əmin ola bilər. Bu əminlik tərəfindən paylayıcı şirkətləri müqavilə öhdəliklərinə əməl etməyə məcbur etməklə əlaqədar, Hökumət dəstəyini tələb edəcəkdir. Bu dəstəyə daxildir: Azərenerjiden aldıklar enerji görə ödəmə üzrə öhdəlikləri yerinə yetirməyən paylaşdırıcı

¹⁵ Ona görə ki, Azərenerji özü elektrik enerjisinin paylayıcısı kimi fəaliyyət göstərir və bu zaman elektrik enerjisinin orta ölçülmüş tarifi bir az yüksəkdir.

şirkətlərin lisenziyasının alınması, və Azərenerjiyə, belə şirkətlərə elektrik enerjisi verilməsini dayandırmağa imkan verən hüququn verilməsi aiddir.

(iii) Əsas fondların yenidən qiymətləndirilməsi: Öncəki bölmədə qeyd edildiyi kimi, hətta “istehsal xərclərini tam ödəyən” tarif şirkətin nəqd vəsait axımı üzrə tələblərini hesablamalara daxil edilmiş amortizasiya normasının aşağı olması səbəbindən, ödəməyə kifayət etməyəcəkdir. Bu problemin həllinə yönəlmiş mexanizmlərdən biri amortizasiya norması əsasında qurğuların və avadanlıqların daha realistik bərpa dəyərlərinin hesablanması ola bilər. Mövcud aktivlərin hərtərəfli texniki təhlili, onun qalan istismar vaxtı, onun hazırki bərpa dəyəri, şirkəti daha yaxşı idarə etməyə və onun investisiya tələblərini daha yaxşı anlamaq və adekvat maliyyələşdirmənin tarif vasitəsi ilə mümkünlüyünə əmin olmaq üçün vacibdir. Şərtlər layihənin texniki yardım komponentində, aktivlərin yenidən qiymətləndirilməsi üzrə tapşırıqlarda verilmişdir.

(iv) Əməliyyatların maliyyə yardımları ilə təmin olunması: şirkətin maliyyə dayanıqlığına nail olmaq üçün son variant Hökumət tərəfindən edilən əlavə yardımlardır. Bunun bir çox forması ola bilər: birbaşa edilən yardımlar, Hökumət kreditləri və/və ya büdcəyə ödəmələrin uzaldılması, və ya yığım və ya yanacaq üzrə xərclərin yığılması kimi spesifik göstəriciyə bağlı olan səhmlərə yardımlar. Maliyyə yardımlarının qeyri-məhsuldar tendensiyaya malik olduğu, belə ki, onların ümumiyyətlə alıcılar tərəfindən effektivliyin yüksəldilməsinə mane olduqları bir vaxtda, hazırki halda tariflərin istehsal xərclərini tam ödəmə səviyyəsinə çatana qədər bəzi səviyyədə dəstəklənməsinin lazımlığı təxmin edilir.

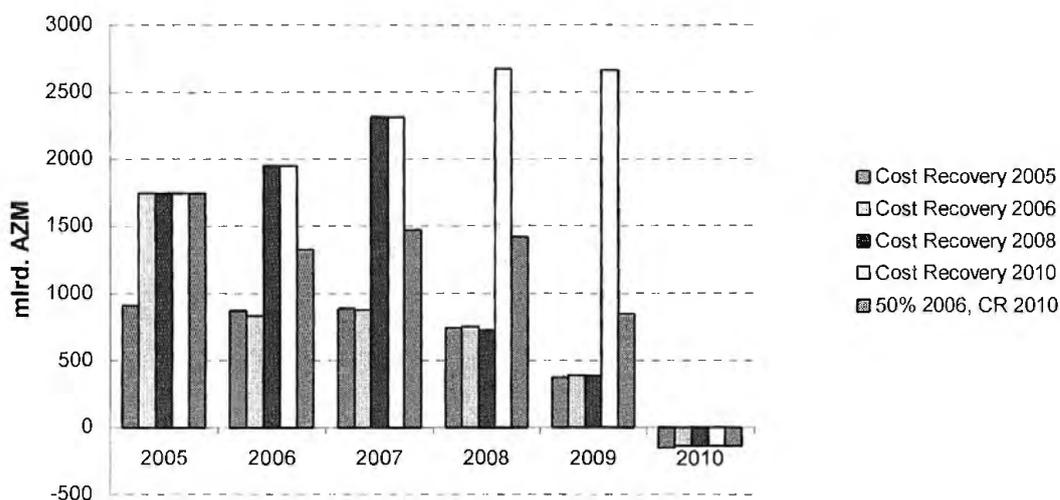
Guman edilir ki, orta müddətdə, Azərenerjinin maliyyə bərpası üçün həm tarif artımlarının keçirilməsi, həm də Hökumət yardımlarının verilməsinin davam etdirilməsi, hazırki vəziyyətdən, yəni ancaq hökumət tərəfindən edilən transfertlərin hesabına əldə olunmasından daha yaxşı çıxış variantdır. Bunun üç əsas üstünlüyü mövcuddur. Birinci, istehsal xərclərinin tam ödənilməsi tariflərinə doğru irəliləyiş enerji istehlakçılarını enerjiden daha səmərəli istifadə etməyə stimullaşdırardı, bununla da tələbatın səviyyəsi aşağı enər və beləliklə də Hökumət yardımına ehtiyac da azalardı. İkincisi, tarif artımları yolu ilə şirkətin nəqd vəsait axımları problemlərinə müraciət etmək əvəzinə, payıyıcı şirkətlərdən enerjiyə görə ödəməmələri örtmək üçün Azərenerjinin maliyyə yardımları ilə təmin olunması qeyri-ödəmələri gəlir tələblərinin bir hissəsi kimi daxil edilməsinə imkan verməyən uzun müddətli tarif prinsiplərinə daha münasibdir. Son olaraq, istehsal xərclərinin tam ödənilməsi tariflərinə doğru irəliləyiş payıyıcı şirkətlərin ödənişlər üzrə geriləmələri olduğu vaxtda sosial müdafiə üçün formal mexanizmlərin yaradılmasına qədər gəlirləri aşağı olan əhəlinin faktiki sosial cəhətdən dəstəklənməsini təmin edir. Uzun müddətdə, təkmilləşdirmələrin effektivliyinin artması, yığım faizlərinin yüksəlməsi, borc üzrə öhdəliklərin yerinə yetirilməsi və yeni investisiyalar üçün adekvat nəqd vəsait axımını təmin etmək üçün aktivləri dəyərinin tənzimlənməsi ilə maliyyə yardımlarının aradan qaldırılacağı gözlənilir.

Tarif artımları və maliyyə yardımları üzrə müxtəlif variantlar, çəkilən istehsal xərclərinin ödənilməsinə imkan verən tariflərin qəbul edilməsi tarixləri göstərilməklə, hazırlanmış və təhlili edilmişdir. Hökumətin əsaslı narahatçılıqları ilə elektrik enerjisinin təchizatında

daha tez iqtisadi effektivlik əldə edilməsi arasında daha yaxşı balans yaradan variantın seçilməsi 2006-cı ilin yanvar ayının 1-dən etibarən elektrik enerjisinin topdansaş qiymətlərinin 50% həcmində artmasına (bir kilivatsaat enerji üçün 71 manatdan 106.5 manata qədər) gətirib çıxaracaqdır. Sonrakı müddətdə, illik artım faizlərini tətbiq edərək, 2010-cu ilin axırına qədər istahsal xərclərinin tam ödənilməsinə (bir kilivatsaat enerji üçün 174 manat) nail olmaq olar. Təklif olunmuş variant hökumət maliyyə yardımlarının həcmünün 2005-ci ildə maksimum 1.7 trilyon olmaqla, 2005-2010-cü illər ərzində cəmi 6.7 trilyon manat olmasını tələb edir. Aşağıdakı şəkillərdə bu ssenari üzrə lazım olan toplam və illik maliyyə yardımlarının həcvlərini və nəqd vəsait axımlarına olan defisitləri əks etdirir. Müqayisə üçün şəkildə həmçinin, əgər 2005, 2006, 2008 və 2010-cü illərdən istahsal xərclərini tam ödəyən tariflər tətbiq olunarsa, tələb olunan əlavə maliyyələşdirmənin həcmi əks etdirilir.

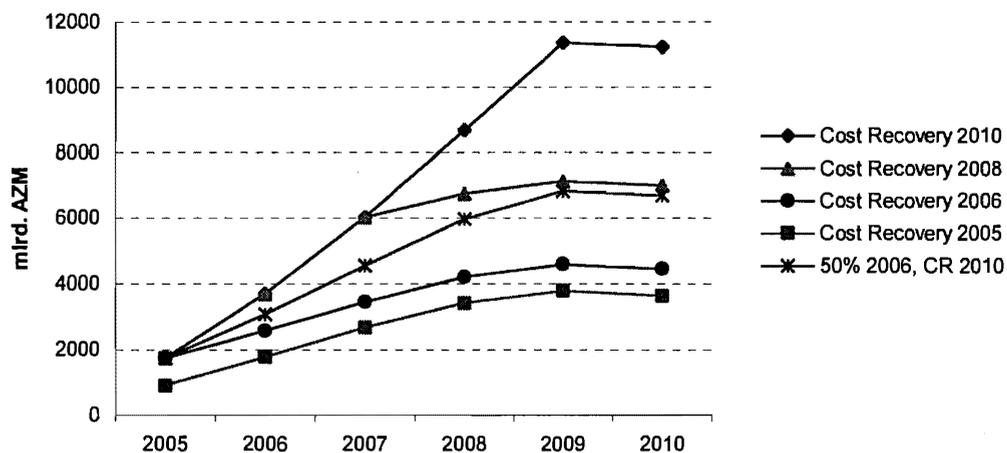
Şəkil 1

Azerenerjinin Nəqd Vesait üzrə illik Defisiti



Şəkil 2

Azerenerjinin Neqd Vesait uzre Toplam Defisiti



Təklif olunmuş ssenari üzrə şirkətin maliyyə vəziyyətini əks etdirən əsas məqamlar Cədvəl 10-də əks edilmişdir. Maliyyə hesabatlarının təqribi formaları Cədvəl 11, 12 və 13-də verilmişdir.

Table 10: Maliyyə üzrə Nəticələrin Xülasəsi

	2003:	2004:	2005:	2006:	2007:	2008:	2009:	2010:	2011:	2012:	2013:
	Fakt	Qiymet. Plan.									
Tarif (manat/kVts - EDV-siz)(nominal)											
Topdansatis	71	71	71	108	122	137	154	173	171	171	172
Perakende	178	100	100	137	151	166	183	202	200	200	200
Dovriyyeden Yiqimlar	36,0%	50,7%	58,6%	68,8%	71,5%	81,8%	90,0%	101,1%	112,5%	112,3%	112,1%
Debitor Borclar	9 288	10 270	11 047	11 927	12 840	13 505	13 919	13 866	13 275	12 684	12 093
Neqd Vesait Aximi Netto	(804)	(337)	-	-	-	-	-	135	644	620	594
ondan: Borc Xidmetlerine	121	114	115	137	264	653	712	697	677	647	615
Gelirler Netto	386	1 193	438	867	1 047	1 129	908	570	544	516	487
Dovriyyeden Odememeler	(897)	(890)	(776)	(880)	(914)	(664)	(415)	53	591	591	590
Sehmlere Yatirimler/Subsidiyalar	(52)	2 039	1 747	1 328	1 474	1 419	851	-	-	-	-
Ilin sonuna Kassa Qaliqi	112	122	122	122	122	122	122	257	900	1 520	2 114
Esas Fondlarin Qaliq Deyeri	3 064	3 032	3 071	4 087	5 831	7 082	7 434	7 417	7 400	7 381	7 362
Uzun Muddetli Borclar	1 535	1 520	1 629	2 711	4 414	5 289	5 211	4 754	4 288	3 822	3 355
Sehmdarlarin Payi	2 702	4 275	4 713	5 580	6 627	7 755	8 663	9 233	9 777	10 293	10 781
Umumi Kapital Qoyulusu	218	-	217	1 245	2 057	1 630	763	412	430	449	468
Borc Xidmetleri Normasi (cari ile esasen)	0,8	2,0	1,3	1,9	2,6	3,0	2,8	2,3	2,2	2,1	2,0
Yeniden Qiymetlendirilmis Esas Fondlarin Qaliq Deyeri uzre Gelir	0,0%	52,2%	14,3%	21,2%	17,9%	15,9%	12,2%	7,7%	7,4%	7,0%	6,6%
Likvidlik Kofisienti	1,1	1,3	1,3	1,4	1,5	1,6	1,7	1,7	1,7	1,7	1,7

Cədvəl 11: Gəlirlər üzrə Hesabatın Təqribi Forması

	Fakt 2003	Qiymətləndir. 2004	Planlaşdır. 2005	2006	2007	2008	2009	2010	2011	2012	2013
Elektrik Enerjisinin Satışı (milyon kVt)	21 244	23 800	24 759	25 111	25 468	25 830	26 197	26 569	27 000	27 436	27 880
Topdansasat	19 663	22 028	22 916	23 242	23 572	23 907	24 247	24 591	24 990	25 394	25 805
Perakendesat	1 581	1 772	1 843	1 869	1 896	1 923	1 950	1 978	2 010	2 042	2 075
Tarif (Manat/kVt) - EDV-siz											
Topdansasat	71	71	71	108	122	137	154	173	171	171	172
Perakendesat (orta)	178	100	100	137	151	166	183	202	200	200	200
İstilik Enerjisinin Satışı ('000 Gkal)	816	816	816	816	816	816	816	816	816	816	816
Tarif (Manat/Gkal) - EDV-siz	66 263	66 263	66 263	66 263	66 263	66 263	66 263	66 263	66 263	66 263	66 263
Umumi Gəlirlər (EDV netto)											
Elektrik Enerjisi - Topdansasat	1 396 073	1 572 298	1 635 705	2 513 441	2 867 084	3 269 660	3 727 915	4 249 674	4 268 459	4 340 540	4 426 076
Elektrik Enerjisi - Perakendesat	280 741	177 763	184 932	256 278	285 488	318 644	356 288	399 051	401 491	408 229	416 065
İstilik	54 071	54 071	54 071	54 071	54 071	54 071	54 071	54 071	54 071	54 071	54 071
Cəmi Umumi Gəlirlər	1 730 885	1 804 132	1 874 708	2 823 790	3 206 643	3 642 375	4 138 274	4 702 797	4 724 020	4 802 840	4 896 212
Emteənin Maya Dəyəri											
Yanacaq	1 664 873	1 907 621	2 195 959	2 291 746	2 385 099	2 482 181	2 583 133	2 688 204	2 803 406	2 923 343	3 048 419
ondan: Qaz	870 913	1 430 716	1 681 782	1 751 411	1 822 753	1 896 946	1 974 096	2 054 394	2 142 434	2 234 093	2 329 679
Mazut	793 960	476 905	514 178	540 335	562 346	585 235	609 037	633 810	660 972	689 250	718 739
Alınmış Elektrik Enerjisi	536 366	248 334	256 529	265 507	272 145	278 949	285 922	293 071	300 397	307 907	315 605
Emək Haqqı	58 159	62 872	66 225	69 018	71 235	73 524	75 885	78 323	80 918	83 597	86 366
Sosial Vergilər	16 866	-	-	-	-	-	-	-	-	-	-
Təmir və Texniki Xidmət	80 216	74 284	78 246	81 546	84 166	86 869	89 659	92 540	95 606	98 771	102 043
Amortizasiya Ayırmaları	110 600	106 063	178 908	229 280	312 705	379 118	410 936	428 780	447 422	466 898	487 248
İnzibati və Digər	75 620	89 384	94 152	98 123	101 275	104 528	107 885	111 351	115 041	118 850	122 786
Cəmi Emteənin Maya Dəyəri	2 542 700	2 488 558	2 870 018	3 035 221	3 226 625	3 405 168	3 553 421	3 692 269	3 842 790	3 999 367	4 162 467
Eməliyyatlardan Gəlirlər Netto	(811 815)	(684 426)	(995 311)	(211 431)	(19 982)	237 206	584 853	1 010 528	881 231	803 473	733 744
Layihə ilə əlaqədar Maya Dəyəri üzrə Qenaətlər											
Layihənin idarəedilməsi və texniki xərcləri	-	-	(4 234)	(8 710)	(7 752)	(2 285)	(250)	-	-	-	-
Faiz və Ohdəliklər üzrə haqlar	(27 462)	(24 642)	(26 109)	(63 046)	(141 616)	(205 331)	(213 239)	(194 574)	(169 513)	(142 687)	(114 616)
Digər Gəlirlər (netto)	3 604	3 680	3 801	3 934	4 033	4 133	4 237	4 343	4 451	4 562	4 676
Vergilər çıxılmaqla Təmiz Gəlir	(32 368)	(32 129)	(32 560)	(43 690)	(61 516)	(74 460)	(78 479)	(78 875)	(78 720)	(78 615)	(78 516)
Vergilər və Subsidiyalardan əvvəl Gəlirlərin Nettosu	(868 041)	(737 517)	(1 054 432)	(322 944)	(226 834)	(40 736)	332 101	806 496	705 245	657 361	618 866
Eməliyyatlar ucun Subsidiyalar	1 253 838	2 008 080	1 746 891	1 328 025	1 474 416	1 419 073	851 492	-	-	-	-
Gəlirdən Vergilər		77 159	254 113	138 492	201 016	249 516	275 667	236 719	161 299	141 049	131 472
Vergilərdən sonra Gəlirlərin Nettosu	385 797	1 193 404	438 346	866 590	1 046 566	1 128 820	907 926	569 778	543 946	516 312	487 394

Cədvəl 12: Mühasibat uçotu üzrə Hesabatın Təqribi forması

	Fakt 2003	Qiymet. 2004	Layihə. 2005	2006	2007	2008	2009	2010	2011	2012	2013
AKTİVLƏR											
Esas fondlar											
Binalar, qurğular və avadanlıqlar	3 898 457	3 792 790	4 009 769	5 255 201	7 312 212	8 942 124	9 705 355	10 117 294	10 547 121	10 995 635	11 463 673
Toplanmış Amortizasiya Ayımları	(1 475 096)	(1 421 683)	(1 600 591)	(1 829 871)	(2 142 576)	(2 521 694)	(2 932 629)	(3 361 410)	(3 808 831)	(4 275 730)	(4 762 978)
Dovriyyədə olan Kapital	640 358	661 332	661 332	661 332	661 332	661 332	661 332	661 332	661 332	661 332	661 332
<i>Netto Qurğu və Avadanlıqlar</i>	<i>3 063 719</i>	<i>3 032 439</i>	<i>3 070 511</i>	<i>4 086 662</i>	<i>5 830 968</i>	<i>7 081 763</i>	<i>7 434 058</i>	<i>7 417 216</i>	<i>7 399 621</i>	<i>7 381 237</i>	<i>7 362 026</i>
Diger Uzun Muddətli Aktivlər											
Vaxtı Uzađılmış Debitor Borclar (dondurulmuş)	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400
Netto Qeyri-Material Aktivlər	147	200	200	200	200	200	200	200	200	200	200
Maliyyə Investisiyaları	59	59	59	59	59	59	59	59	59	59	59
<i>Cəmi Diger üzrə</i>	<i>7 422 606</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>					
Dovriyyə Vasaitləri											
Kassa və Bank Hesabları	112 263	121 994	121 994	121 994	121 994	121 994	121 994	277 432	921 449	1 541 457	2 136 334
Qısa Muddətli Investisiyalar											
Debitorlar - Perakende	9 288 426	10 270 140	11 046 519	11 926 788	12 841 464	13 507 418	13 923 639	13 870 329	13 278 718	12 687 432	12 096 522
Debitorlar - Diger	584	12 506	12 506	12 506	12 506	12 506	12 506	12 506	12 506	12 506	12 506
Umsuz Borclar ucun Kicik Faizlər											
Material Qaliqlar	89 022	117 989	134 416	176 165	245 121	299 759	325 344	339 153	353 562	368 597	384 286
Gelecek Xercler	67 813	83 345	83 345	83 345	83 345	83 345	83 345	83 345	83 345	83 345	83 345
Vergilər (netto)	1 178 878	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697
Diger Dovriyyə Vasaitləri	15 975	89 144	92 086	95 309	97 691	100 134	102 637	105 203	107 833	110 529	113 292
<i>Cəmi Dovriyyə Vasaitləri üzrə</i>	<i>10 752 961</i>	<i>11 808 815</i>	<i>12 604 663</i>	<i>13 529 804</i>	<i>14 515 819</i>	<i>15 238 853</i>	<i>15 683 162</i>	<i>15 801 665</i>	<i>15 871 110</i>	<i>15 917 562</i>	<i>15 939 982</i>
Cəmi Aktivlər üzrə	21 239 286	22 263 913	23 097 733	25 039 125	27 769 445	29 743 275	30 539 878	30 641 541	30 693 390	30 721 458	30 724 667
PASSİVLƏR											
Sehmdarların Xususi Kapitali											
İlkin Kapital	483 267	485 119	485 119	485 119	485 119	485 119	485 119	485 119	485 119	485 119	485 119
Kapital Qoyuluşları	1 370 483	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759
Yenidenqiymətləndirilmiş Ehtiyatlar	40	40	40	40	40	40	40	40	40	40	40
Bolusdurulmemiş Gəlirlər	696 651	633 882	2 217 430	2 655 776	3 522 366	4 569 983	5 700 485	6 610 070	7 200 517	7 744 462	8 260 774
Ustəgel cari dövr üzrə gəlirlər	304	1 583 548	438 346	866 590	1 047 616	1 130 502	909 585	590 447	543 945	516 312	487 394
Kicik Odemələr	(304)										
Diger Ehtiyatlar	152 009	172 728	172 728	172 728	172 728	172 728	172 728	172 728	172 728	172 728	172 728
<i>Cəmi Kapital üzrə</i>	<i>2 702 450</i>	<i>4 275 076</i>	<i>4 713 422</i>	<i>5 580 012</i>	<i>6 627 629</i>	<i>7 758 131</i>	<i>8 667 716</i>	<i>9 258 163</i>	<i>9 802 108</i>	<i>10 318 420</i>	<i>10 805 814</i>
Uzun Muddətli Ohdeliklər											
Xarici Kreditlər	1 535 448	1 519 859	1 628 669	2 710 595	4 413 977	5 288 892	5 210 536	4 753 511	4 287 965	3 821 592	3 354 545
Yenidenqiymətləndirilmiş Valyuta Ehtiyatları			(5 123)	(26 031)	(59 222)	(103 781)	(151 854)	(197 565)	(239 208)	(276 742)	(310 160)
Vaxtı Uzađılmış Borclar (dondurulmuş kreditorlar)	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400
Yerli Borclar											
<i>Cəmi Uzun Muddətli Ohdeliklər</i>	<i>8 957 848</i>	<i>8 942 259</i>	<i>9 045 946</i>	<i>10 106 964</i>	<i>11 777 155</i>	<i>12 607 511</i>	<i>12 481 082</i>	<i>11 978 346</i>	<i>11 471 157</i>	<i>10 967 249</i>	<i>10 466 784</i>
Cari Ohdeliklər											
Kreditor Borclar - Kommersiya	7 896 187	7 875 801	8 165 298	8 176 781	8 187 579	8 198 792	8 210 435	8 222 536	8 235 724	8 249 434	8 263 709
Emek haqqı və Sosial Siqorta Odenisleri	9 923	5 119	5 519	5 752	5 936	6 127	6 324	6 527	6 743	6 966	7 197
Budce	676 391	623 010	623 010	623 010	623 010	623 010	623 010	623 010	623 010	623 010	623 010
Alınmış Avanslar	327 169	287 276	287 276	287 276	287 276	287 276	287 276	287 276	287 276	287 276	287 276
Diger Cari Ohdeliklər	71 162	57 236	59 125	61 194	62 724	64 292	65 899	67 547	69 236	70 966	72 741
Qısa Muddətli Borclar	598 156	198 136	198 136	198 136	198 136	198 136	198 136	198 136	198 136	198 136	198 136
<i>Cəmi Cari Ohdeliklər</i>	<i>9 578 988</i>	<i>9 046 578</i>	<i>9 338 364</i>	<i>9 352 149</i>	<i>9 364 661</i>	<i>9 377 633</i>	<i>9 391 081</i>	<i>9 405 032</i>	<i>9 420 125</i>	<i>9 435 789</i>	<i>9 452 069</i>
Total Liabilities and Equity	21 239 286	22 263 913	23 097 733	25 039 125	27 769 445	29 743 275	30 539 878	30 641 541	30 693 390	30 721 458	30 724 667

Cədvəl 13: Nəqd Vəsait Axımı üzrə Hesabatı Təqribi Forması

	Fakt	Qiymətlənd.	Layihə								
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Maliyyə Fondlarının Menbeleri											
Faiz Dərəcələrinə, Vergilərdən əvvəl Gəlirlər	(840 579)	(712 874)	(1 028 323)	(259 898)	(85 219)	164 595	545 339	1 001 071	874 758	800 048	733 483
Elavə Amortizasiya	110 600	106 063	178 908	229 280	312 705	379 118	410 936	428 780	447 422	466 898	487 248
Daxildə Yaranmış Nəqd Vəsait	(729 979)	(606 811)	(849 416)	(30 617)	227 486	543 712	956 275	1 429 851	1 322 180	1 266 946	1 220 731
Xarici Maliyyə											
Xarici Borclar	118 038	-	192 273	1 135 453	1 792 586	1 278 183	371 893	-	-	-	-
Yerli Borclar	-	-	-	-	-	-	-	-	-	-	-
Hökumət Subsidiyaları	1 253 838	2 008 080	1 746 891	1 328 025	1 474 416	1 419 073	851 492	-	-	-	-
Hökumətin Səhmlərə Yatırımları	(1 306 128)	31 128	-	-	-	-	-	-	-	-	-
Cəmi Xarici Maliyyə	65 748	2 039 208	1 939 164	2 463 479	3 267 002	2 697 256	1 223 385	-	-	-	-
Cəmi Menbələr	(664 231)	1 432 397	1 089 749	2 432 861	3 494 488	3 240 968	2 179 661	1 429 851	1 322 180	1 266 946	1 220 731
Maliyyə Fondlarından İstifadə											
Kapital Qoyuluşları											
İnvestisiya üzrə Yeni Layihələr	217 926	-	190 463	1 155 978	1 827 731	1 316 444	383 188	-	-	-	-
Kapitalaşdırılmış Texniki Xidmət	-	-	26 516	89 454	229 280	313 468	380 043	411 939	429 827	448 514	468 038
Borc üzrə Xidmət											
Borc Odenisi	93 238	88 889	88 585	74 436	122 394	447 828	498 322	502 736	507 189	503 908	500 465
Faiz üzrə Odenisler/Ohdeliklər üzrə Haqlar	27 462	24 642	26 109	63 046	141 616	205 331	213 239	194 574	169 513	142 687	114 616
Digər											
Odenilmiş Vergilər	-	77 159	254 113	138 492	201 016	249 516	275 667	236 719	161 299	141 049	131 472
Odenilmiş Dividendlər											
Nəqdsiz Dövriyyə Kapitalında Artma/(Azalma)	(198 527)	1 578 533	503 962	911 456	972 451	708 380	429 202	(50 946)	(589 197)	(588 742)	(588 258)

Əlavə 10: Ehtiyat Tədbirləri Siyasəti üzrə Problemlər

Azərbaycan: Elektrik Ötürücü Sistemi Layihəsi

Layihə ilə əlaqədar təklif olunmuş investisiyalar mövcud avadanlıqlarla və əraziyə daxil olma hüququnun olması ilə məhdudlaşır və bu layihənin ətraf mühitə hər hansı mühüm təsiri ilə əlaqədar və ya digər ehtiyat tədbirlərinin ələ alınmasını tələb etməyəcəkdir. Layihəyə ilkin ekoloji kateqoriya kimi B kateqoriyası verilmişdir. Ətraf Mühitin Qiymətləndirilməsinin bir hissəsi kimi Ətraf Mühitin İdarə olunması Planı layihə üzrə tikinti-quraşdırma işlərinin yerinə yetirilməsi zamanı qarşıya çıxacaq yerli təsirləri azaltmaq üçün (məsələn, xətlərin təmiri, transformator avadanlıqlarının əvəzlənməsi) və tullantı materialların kənar edilməsi və istismar zamanı təsirin azalması prosedurlarını (məs., texniki xidmət üzrə yerinə yetirilən işlər) təyin etmək üçün hazırlanmışdır. Mübahisəli torpaqlarda və konflikt zonasında heç bir sub layihə olmayacaqdır.

Layihə ilə əlaqədar təsirlər əsasən tikinti zamanı yaranacaq potensial səs-küy və tozunaq ilə səciyyələnir. Sintetik xlor xassəli (PCB) yağların ərazidə (yarımstansiyalar) olması gözlənilmir, lakin PCB üçün testləşdirmə keçiriləcəkdir və lazımi təmizləmə tədbirləri görülməlidir. Əvəzlənmiş batareyalar təhlükəsiz şəraitdə kənar ediləcəklər. Əgər əməliyyatlar zamanı torpağın təkisi hər hansı təsirlərə, qazılan yerlərin doldurulması, qruntun düzləndirilməsi və yaşıllığın bərpası kimi ekoloji tədbirlər yerinə yetiriləcəkdir. Torpağın təmizlənməsi üçün görülən hər hansı əməliyyatlarda heç bir pestisidlərdən istifadə olunmayacaqdır. Bütün təmizləmə işləri əl və ya mexaniki üsullarla görülməlidir.

Layihənin potensial geniş miqyaslı, əhəmiyyətli və/və ya bərpa edilməz təsirləri təyin edilməmişdir.

Layihənin *müsbət* təsirləri aşağıdakılardır:

Layihənin yerinə yetirilməsi ehtiyatlı qiymətləndirmələrə əsasən, elektrik stansiyalarının daha səmərəli istismar olunması qaz və yanacaqdan istifadənin 1.5 faiz azalacağına səbəb olacaqdır ki, bu da stansiyalardan parnik qazlarının atılmasına təsir edəcəkdir. Ötürmə zamanı itkilərin 0.5 faiz azalması (5 faizdən 4.5 faizə) elektrik stansiyalardan atılmalara pozitiv təsir göstərir. Nəzərə alsaq ki, layihə enerji ilə təchizatın artmasına və onun daha etibarlı olmasına səbəb olacaqdır, bu əhalinin özünün istiliyə və işığa olan tələbatını ödəmək üçün ağ neftdən və odundan istifadəsinin azalmasına kömək edəcəkdir. Elektrik stansiyalarda yanacağın qənaətinə və bununla da atılmaların azalmasına layihə vasitəsi ilə nəzarət oluna bilər. Məişət sahəsinin gələcək tədqiqatında elektrik enerjisindən istifadənin səviyyəsinin ağac və ağ neftdən (həmçinin təbii qaz daxil olmaqla) istifadəyə qarşı vəziyyətinə nəzarət edəcəkdir.

Layihə Azərənərinin maliyyə cəhətdən həyat qabiliyyətli saxlanılacağına Hökumətin zəmanət verməsini tələb edir. Şirkətə birbaşa maliyyə yardımlarını kəsmək üçün Hökumət elektrik enerjisi tariflərinin artırılmasını və son nəticədə, istehsal xərclərinin ödənilməsi səviyyəsinə çatmağı planlaşdırır. Belə yüksək tariflər tələbatın zəifləməsinə gətirib çıxaracaq, bu da öz növbəsində istilik elektirik stansiyalarından atılmalara təsir göstərəcəkdir.

Əlavə 11: Layihə üzrə Hazırlıq İşləri və Nəzarət
Azərbaycan: Elektrik Ötürücü sistemi Layihəsi

	Planlaşdırılmış	Faktiki
LKQ –nin icmalı	07/21/2003	09/03/2003
İlkin LMS-dən Məlum.Bazasına qədər	09/29/2003	09/30/2003
İlkin ETVSC-dən Məlum.Baza. qədər	09/29/2003	09/30/2003
Qiymətləndirmə	03/15/2004	02/11/2005
Danışıqlar		03/17/2005
Şüranın təsdiqi		05/17/2005
Qüvvəyə minmənin planl. tarixi		08/17/2005
Plan. orta müddət təhlilinin tarixi		10/31/2007
Planlaşdırılmış son tarix		12/31/2010

Layihənin yerinə yetirilməsinə məsul olan əsas institutlar:

BYİB tərəfindən maliyyələşdirilən KEMA (konsorsium) məsləhətçi şirkəti tərəfindən dəstəklənən enerjinin istehsalı və ötürülməsi üzrə dövlət şirkəti Azərenerji.

Layihə ilə əlaqədar fəaliyyət göstərən Bankın işçi heyəti və məsləhətçilər:

Adı	Vəzifəsi	Bölmə
Byorn Hamso	Proqram Qrupun Rəhbəri	ECSIE
Andrina A. Ambros-Qardiner	Maliyyə üzrə Mütəxəssis	LOAG1
Bernard Barat	Ətraf mühit üzrə Məsləhətçi	EASEG
Junko Funaxaşi	Baş Hüquqşünas	LEGEC
Qurçaran Sinqx	Satınal.üzrə Baş Mütəxəssis	ECSPS
Sureyxa Jadu	Əməliyyat üzrə Analitik	ECSIE
Josefina Kida	Proqram Köməkçisi	ECSIE
Fərid Məmmədov	Əməliyyat üzrə Mütəxəssisi	ECSIE
Ida N. Muxoxo	Maliyyə İdarəetm. Mütəxəssis	ECSPS
Nil Patterson	Enerji/SCADA Baş Mühəndis	Consultant
Vladislav Vuketiç	Enerji üzrə Aparıcı Mühəndis	ECSIE
Marqaret A. Vilson	Maliyyə üzrə Baş Analitik	Consultant

Layihənin icrası ilə əlaqədar sərf olunmuş Banl fondları:

1. Bank resursları: 379,000 ABD
2. Etibar edilmiş fondlar: 57,000 ABD
3. Cəmi: 436,000 ABD

Layihənin icra edilməsi (SCADA/EMS/Tele-rabitə/Ölçünün əsas komponentləri üçün bəzi satınalma mərhələləri) layihəyə hazırlıq ilə paralel həyata keçirilir və yuxarıda göstərilən xərclərdə nəzərə alınmışdır (30 000 ABD səviyyəsində qiymətləndirilmişdir).

Nəzarət və təsdiq üçün qiymətləndirilmiş xərclər:

1. Təsdiq üçün sərbəst qalan xərclər: 4,000 ABD
2. Qiymətləndirilmiş illik nəzarət xərc: 120,000 ABD

Əlavə 12: Karbon Maliyyələşdirmə Layihəsi

Azərbaycan: Elektrik Ötürücü Sistemi Layihəsi

Azərbaycanın Elektrik Ötürücü sistemi Layihəsi üzrə Karbon Maliyyələşdirmə Layihəsi.

Azərbaycanın Elektrik Ötürücü Sistemi Layihəsi üzrə Karbon Maliyyələşdirmə Layihəsi Kioto protokolunun, sənaye cəhətdən inkişaf etmiş ölkələrin ictimai və özəl hissələrinin inkişaf etməkdə olan ölkələrdə parnik qazlarının atılması layihələrini investisiyalaşdırmağa imkan verən Təmiz İnkişaf Mexanizmi (CDM) barədə bəhs edən 12-ci maddəsinin şərtlərinə münasibdir. CDM investitorlara Kioto Protokolunun və yanvar ayının 1-dən qüvvəyə minəcək Avropa Birliyi Parnik Qazları Atılmaları üzrə Ticarət Sxemi razılaşmalarının şərtləri altında atılmalar üzrə azalmaların müqabilində kreditlərin verilməsinə şərait yaradır. Azərbaycan Kioto Protokolunu 2000-ci ilin sentyabr ayının 28-də ratifikasiya etmişdir. Kioto Protokolu 2005-ci ilin fevral ayının 16-da qüvvəyə minib.

Layihənin ilkin məqsədi Azərbaycanda, yüksək gərginlikli elektrik veriliş xətlərinin istismar edilməsinə və onların idarəedilməsinə maliyyə investisiyaları yolu ilə, elektrik enerjisinin etibarlılığının, keyfiyyətinin və effektivliyinin artırılmasıdır. Əlavə olaraq, yüksək gərginlikli elektrik veriliş xətlərinin idarə olunmasının yüksəldilməsi regionda enerji ticarətinin genişləndirilməsinə kömək edəcəkdir.

Layihənin məqsədlərinin qiymətləndirilməsində istifadə olunacaq əsas işçi göstəricilər:

- İstilik elektrik stansiyalarının iqtisadi cəhətdən səmərəli istifadə olunma səviyyəsinin artırılması səbəbindən hər bir kVts elektrik enerjisinin istehsalına sərf olunan yanacağın miqdarının azalması: 1.5 faiz;
- Ötürmə zamanı yaranan itkilərin azalması: 0.5 percent; və
- YG ötürücü sistemin daxilində açılımların tezliyinin və sürəkliliyinin azalması.

Azərbaycanda elektrik enerjisinin istehsalında ümumi effektivliyin artırılması, Azərbaycanda atmosfərə atılan çirkəndirici maddələrin həcmi və istilik elektrik stansiyalarında natural yanacağın (mazut və təbii qaz) yandırılmasından global mühidə dəyişikliklərə səbəb olan CO₂ üzrə atılmaların azalmasına gətirib çıxaracaqdır. Azərbaycan Kioto protokolunu ratifikasiya etmiş və Ekologiya və Təbii Sərvətlər Nazirliyi bu prosesə cavabdeh olan Milli Təşkilat (MT) kimi seçilmişdir. Beləliklə də, Azərbaycan, elektrik ötürücü sistemi və Kioto Protokolunun Təmiz İnkişaf Mexanizmi altında yerinə yetirilən parnik qazlarının azaldılması layihələrini həyata keçirən sahibkar ölkə kimi layihənin yerinə yetirilməsi ilə toplanan CO₂ üzrə azalmış atılmaların satılması ilə əlavə gəlirlərin əldə edilməsi üçün böyük imkanlar qazanır.

Təklif olunmuş layihənin CO₂ üzrə yaradacağı atılmaların azalmasını qiymətləndirmək və təyin etmək üçün, hazırda iki bazis variantlar üzrə tədqiqatlar aparılır. İlkin olaraq qiymətləndirilmişdir ki, su elektrik stansiyalarında elektrik enerjisinin istehsalının artırılması CO₂ atılmaları üzrə azalmaların 2 milyon ton və təkmilləşdirilmiş SCADA və EMS sistemləri ilə enerji sistemdə istehsalın effektivliyinin yüksəldilməsi on il ərzində CO₂ atılmaları üzrə azalmaların təxmini 2.5 milyon ton olacağı gözlənilir.

Danimarka hökuməti layihəni, Dünya Bankı tərəfindən idarə olunan karbon fondlarından biri olan Hollandiya Təmiz İnkişaf Fondunun (NCDF) portfelinə daxil etməyə razılığını bildirmişdir. NCDF 2012-ci ilə qədər layihə tərəfindən toplanmış atımlar üzrə azalmaları 100 faiz həcmində alacaqdır. Alınacaq atımların dəqiq miqdarı emissiya atımlar üzrə azalmaları qiymətləndirən tədqiqat başa çatdıqdan sonra təyin ediləcəkdir.

Azərbaycanın Milli Təşkilatı bu layihə barədə hərtərəfli məlumatla malikdir və onu dəstəkləyir və onun rəsmi təsdiqi 2005-ci ildə gözlənilir.

Gözlənilir ki, Dünya Bankı ilə layihənin sponsoru Azərenerji arasında atımlar üzrə azalmaların alınması razılaşması (ERPA) üzrə danışıqlar, 2006-cı ildə yekunlaşacaqdır. ERPA CO2 atımları üzrə azalmaların dəqiq miqdarını, dəyərini təyin edəcəkdir. Layihənin sponsoru tərəfindən karbon üzrə ticarətdən əldə edəcəyi gəlirlərin məbləği atımlar üzrə yaranan azalmaların miqdarından və alıcı ilə satıcı arasında bu atımların bir vahidinin dəyəri barədə gəldikləri razılıqdan asılıdır. Əgər təxmin edilsə ki, CO2-nin 1 tonunun qiyməti 4 ABŞ dollarıdır, onda, potensial əldə olunacaq gəliri 18 milyon ABŞ dolları təşkil edəcəkdir. Kioto Protokolunun qüvvədə olduğu birinci beşillik-öhdəlik dövründə (2008-2012) layihə (2010-2012-ci illərdə) 5.4 milyon ABŞ dolları gəlir gətirəcəkdir. CO2 üzrə atımların satılmasından əldə olunan gəlirlər, layihənin Daxili Özüni Ödəmə Normasını [0.8] faizə və layihənin Qiymətləndirilmiş Təmiz Gəlirlərinin 2.8 milyon ABŞ dolları artmasına səbəb olacaqdır. Əgər Kioto Protokolu üzrə tərəfdaşlar hökumətlər onun müddətinin sonrakı beş ilə (yəni, 2013-2017-ci illər) uzadılması barədə razılığa gəlsələr, bu, Azərenerjiyə, parnik qazları üzrə atımların satılmasından əhəmiyyətli dərəcədə gəlirlər əldə etməyə imkan verəcəkdir.

Dünya Bankının CDM üzrə təcrübəsinin olması və global karbon bazarının mövcudluğu səbəbindən, karbon maliyyələşdirmə layihəsinə Bankın cəlb olunması karbon aktivlərinin inkişafına və Azərbaycanın CDM ölkəsi kimi tanınmasına əhəmiyyətli dərəcədə töhvə vermiş olardı. Dünya Bankı, bu karbon maliyyələşdirmə layihəsinə xeyir gətirəcək metodologiyaya və ekspertiza aparılma təcrübəsinə malikdir. Azərbaycanda ilk dəfə həyata keçirilən layihə olduğu üçün onun əhəmiyyəti, Azərbaycanın yeni meydana çıxmış bu cür bazarda imkanlarını nümayiş etdirməsidir. Azərbaycanda elektrik stansiyalarının pis işçi vəziyyətdə olması, bu tip digər layihələr üçün potensial imkanların olduğunu göstərir.

Layihənin karbon maliyyələşdirmə komponentinin detallaşdırılmış təsviri 2005-ci ilin birinci yarısında hazırlanması gözlənilən Karbon Maliyyələşdirmə Sənədində (CFD) və Layihənin Dizayn Sənədində (PDD) veriləcəkdir.

Əlavə 13: Layihənin faylında olan sənədlər

KEMA Inc., Dar al Handash, “Azərenerji AçıqSəhmdar Cəmiyyəti, Texniki İqtisadi Əsaslandırma üzrə Son Hesabatı, Hissə I, Elektrik Ötürücü Sistemi Layihəsi”, Oktyabr 2004

KEMA Inc., Dar al Handash, “ Azərenerji AçıqSəhmdar Cəmiyyəti, Texniki İqtisadi Əsaslandırma üzrə Son Hesabatı, Hissə II, Bərpanın Qiymətləndirilməsi”- , "(Ətraf Mühitin Qiymətləndirilməsi)", Oktyabr 2004

Azərenerji, "Elektrik Ötürücü Sistemi Layihəsi (BYİB): "Ətraf Mühitin İdarə Olunması Planı", 2005

Burns & Roe Enterprises, “Azərbaycan Respublikası, Enerjinin Generasiyası və Ötürülməsi üçün Prioritet İnvestisiyalar”, Noyabr 2003

T.e.n. V. Vəliyev, « Azərbaycanca mövcud olan Enerji və Qaz Sisteminin İcmalı », İyun 2002

Dünya Bankı: " Azərbaycan: Enerji Sektorda İslahatlar ilə Əlaqədar Problemlər və Variantlar", Noyabr, 2004

Dünya Bankı, « Azərbaycanın Yüksələn Göstəriciləri: Təkrar Balanslaşdırılan Elektrik Enerjisi Tariflərinin Əhaliyə Qısa Müddətli Təsirləri », 10 Dekabr, 2004

Nexant : « Azərbaycan: Elektrik Enerjisi, Təbii Qaz və Su sektorunda İnstitusional Bacarığın və Tənzimlənmə Çərçivəsinin İnkişafı », 13 Avqust, 2004

Azərenerji barədə əlavə məlumat: www.azerenerji.com/

Əlavə 14: Borclar və Kreditlər üzrə Hesabat
Azərbaycan: Elektrik Ötürücü sistemi Layihəsi

Layihə No	Mİ	Məqsəd	İlkin məbləğ, mln.ABD				Çıxar.	İstif.edilm	Gözlənilən və faktiki ödəmələr arasında fərq	
			BYİB	BİA	SF	GEF			İlkin	Düzəldil.
P081616	2003	MAL XİD İNKİŞAF	0.00	12.25	0.00	0.00	0.00	12.91	0.00	0.00
P049892	2003	PENSIYALAR & SOS YARD	0.00	10.00	0.00	0.00	0.00	10.36	1.17	0.00
P076234	2002	KƏND İNVEST (AZRIP)	0.00	15.00	0.00	0.00	0.00	15.52	0.25	0.00
P070989	2001	TƏHS SEK İNKİŞAF (APL #1)	0.00	18.00	0.00	0.00	0.00	18.44	3.18	0.00
P008286	2001	IRRIQ SYS & MGMT YAXŞILAŞ	0.00	35.00	0.00	0.00	0.00	38.66	1.81	0.00
P066100	2001	IBTA 2	0.00	9.45	0.00	0.00	0.00	8.82	2.45	0.00
P069293	2000	SƏHIYYƏ	0.00	5.00	0.00	0.00	0.00	1.73	-3.97	0.00
P070973	1999	MAL SEK TY	0.00	5.40	0.00	0.00	0.00	1.28	-4.97	0.00
P040716	1999	YOLLAR	0.00	40.00	0.00	0.00	0.00	33.64	21.07	0.00
P008284	1999	IRRIQ/DRENAJ BƏRPA	0.00	42.00	0.00	0.00	0.00	22.76	13.23	0.00
P035770	1999	PILOT LAY	0.00	20.00	0.00	0.00	0.00	3.08	-8.52	1.59
P035813	1998	KƏND TƏS İNK & KREDIT	0.00	30.00	0.00	0.00	0.00	5.38	4.10	-3.49
P058969	1997	MƏD İRSİN İNK	0.00	7.50	0.00	0.00	0.00	1.96	1.49	-0.38
P055155	1995	TƏC EKOLOJİ İNVEST	0.00	20.00	0.00	0.00	0.00	4.94	3.64	3.86
P008288		BAKİ SU SİS	0.00	61.00	0.00	0.00	0.00	9.66	3.40	3.38
Cəmi:			0.00	330.60	0.00	0.00	0.00	189.14	38.33	4.96

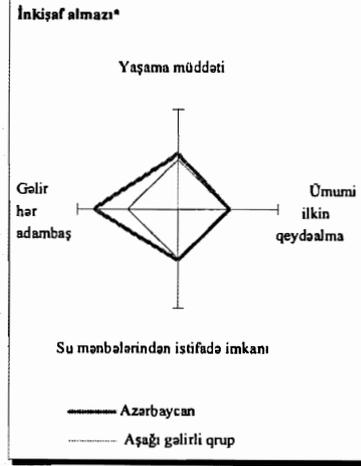
AZERBAJCANIN
Beynəlxalq Maliyyə Şirkəti üzrə Hesabatı
Ayrılmış və Saxlanılmış Portfel
Milyon ABŞ Dolları

Təsdiql. Mİ	Şirkət	Qəbul olunmuş				Ödənilmiş			
		BMŞ				BMŞ			
		Borc	X.kapit.	Zahiri	Qismən.	Borc	X.kapital	Zahiri	Qismən.
2004	Amerada Hess ...	1.68	0.00	0.00	1.68	1.68	0.00	0.00	1.68
1998/04	Azerb. JV Bank	0.00	0.40	0.00	0.00	0.00	0.40	0.00	0.00
2003	Azerigazbank	1.20	0.00	0.00	0.00	1.04	0.00	0.00	0.00
2004	BP Corp NA	10.00	0.00	0.00	10.00	10.00	0.00	0.00	10.00
1998	Baku Coca Cola	0.58	0.00	0.00	0.00	0.58	0.00	0.00	0.00
1999	Baku Hotel	5.83	0.00	0.00	0.00	5.83	0.00	0.00	0.00
2002	MFB Azerbaijan	0.00	1.75	0.00	0.00	0.00	1.75	0.00	0.00
2003	Rabitabank	1.20	0.00	0.00	0.00	1.20	0.00	0.00	0.00
2004	Statoil	8.75	0.00	0.00	8.75	2.50	0.00	0.00	2.50
2004	Unocal - Unio...	10.00	0.00	0.00	10.00	10.00	0.00	0.00	10.00
Cəmi:		39.24	2.15	0.00	30.43	32.83	2.15	0.00	24.18

Mİ	Şirkət	Təsdiqi gözləyən öhdəliklər			
		Borc	X.kapital	Zahiri	Qismən.
2001	Azer JV İnkişaf.	0.00	0.00	0.00	0.00
Cəmi gözlənilən öhdəlik:		0.00	0.00	0.00	0.00

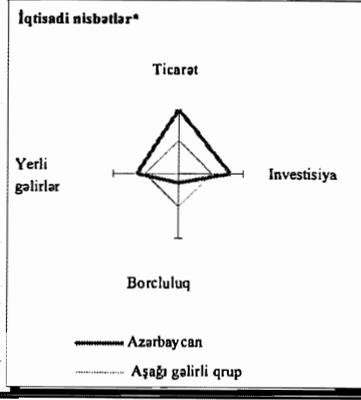
Əlavə 15. Ölkəyə Baxış AZƏRBAYCAN: Elektrik Ötürücü Sistemi Layihəsi

Yoxsulluq və Sosial	Avropa & Markəzi Asiya		
	Azərbaycan	Markəzi Asiya	Aşağı-Gəlirlər
2002			
Əhalinin sayı, orta illik (milyon)	8.2	476	2,495
Adambaşına gəlir (Atlas metodu, ABD)	710	2,160	430
Gəlir (Atlas metodu, ABD mlrd.)	5.8	1,030	1,072
Orta illik artım, 1996-02			
Əhali (%)	0.9	0.1	1.9
Əmək qabiliyyəti (%)	1.8	0.4	2.3
Ən son qiymətləndirmə (əldə olunması mümkün olan il, 1996-02)			
Yoxsulluq (% əhalinin yoxsulluq həddində aşağı)
Şəhər əhalisi (% əhalinin sayı)	52	63	30
Yaşayış müddəti (il)	65	69	59
Uşaq ölümü (hər 1,000 doğulana)	74	25	81
Uşaq aclığı (% 5 yaşdan yuxarı)	17
Su mənbələrindən istifadə imkanı (% əhalinin sayı)	78	91	76
Savadsız (% əhalinin 15 yaşdan yuxarı)	..	3	37
Ümumi ilkin qeyda alma (% məktəbli yaşlı əhali)	98	102	95
Kişi	97	103	103
Qadın	99	101	87



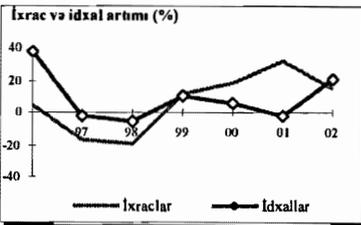
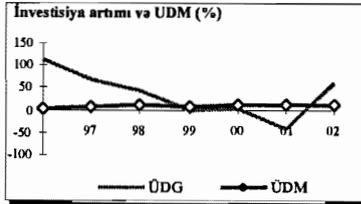
ƏSAS İQTİSADI NİSBƏTLƏR VƏ UZUN MÜDDƏTLİ TENDENSİYA

	1982	1992	2001	2002	
UDM (ABD mlrd)	..	0.44	5.7	6.1	
Ümumi daxili investisiya/UDM	..	-0.7	20.7	32.8	
Malların və xidmətlərin ixracı/UDM	..	86.2	41.5	43.8	
Ümumi daxili gəlirlər/UDM	24.9	25.3	
Ümumi milli gəlirlər/UDM	20.4	20.2	
Cari ödəniş balans/UDM	-0.9	-12.6	
Ödəniş dərsələri/UDM	0.4	0.3	
Ümumi borc/UDM	22.2	23.6	
Ümumi borc xidməti/ixraclar	5.3	6.5	
Borcun cari dəyəri/UDM	17.4	..	
Borcun cari dəyəri/ixraclar	39.5	..	
	1982-92	1992-02	2001	2002	2002-06
(orta illik artım)					
UDM	..	1.2	9.9	10.6	..
Adambaşına UDM	..	0.1	8.9	9.6	..



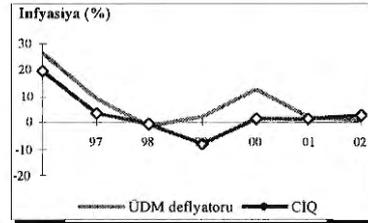
İQTİSADIYYATIN STRUKTURU

	1982	1992	2001	2002
(% ÜDM)				
Kənd təsərrüf	..	29.0	15.9	15.2
Sənaye	..	40.0	47.2	49.5
İstehsal	..	23.9	7.1	6.7
Xidmətlər	..	31.0	36.9	35.3
Özəl istehlak	..	51.4	61.5	61.9
Ümumi dövlət istehlakı	..	17.7	13.6	12.8
Malların və xidmətlərin idxalı	..	54.6	37.3	51.2
	1982-92	1992-02	2001	2002
(orta illik artım)				
K/təsərrüfat	..	0.8	11.1	7.5
Sənaye	..	-2.2	7.3	19.5
İstehsal	..	-8.6	-3.7	4.0
Xidmətlər	..	11.3	12.1	4.1
Özəl istehlak	..	9.2	10.9	5.2
Ümumi dövlət istehlakı	..	6.8	-9.5	5.5
Ümumi daxili investisiya	..	17.2	-44.4	61.0
Malların və xidmətlərin idxalı	..	5.3	-2.4	20.7



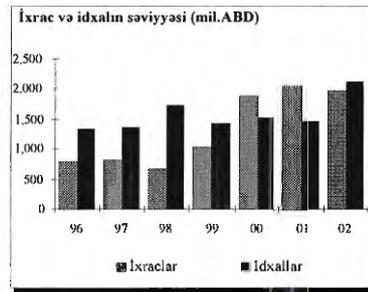
QIYMƏTLƏR və HÖKUMƏT MALİYYƏSİ

	1982	1992	2001	2002
DAXILI QIYMƏTLƏR				
(% dəyişən)				
İstehlakçı qiymətlər	1.5	2.7
ÜDM deflyatoru	2.5	0.7
HÖKUMƏT MALİYYƏSİ				
(% ÜDM, cari qranlar daxil olmaqla)				
Cari gəlirlər	21.5	28.0
Cari büdcə balansı	4.7	5.4
Ümumi büdcə qalıq/defisit	0.9	-0.5



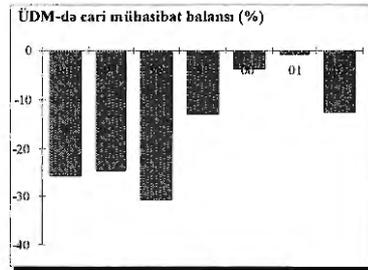
TİCARƏT

	1982	1992	2001	2002
(ABD milyon)				
Ümumi ixrac (FOB)	2,046	1,969
n.a.
n.a.
İstahsal	205	226
Ümumi idxal (CIF)	..	788	1,465	2,136
Ərzaq
Yanacaq və Enerji
İstahsal vasitələri	138	732
İxracın qiy. indeksi (1995 = 100)	262	259
İdxalın qiy. indeksi (1995 = 100)	98	98
Ticarət şərtləri (1995 = 100)	268	264



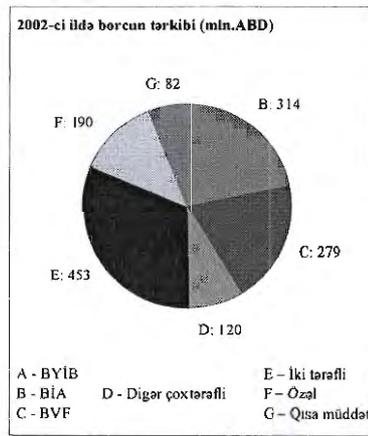
ÖDƏMƏ BALANSI

	1982	1992	2001	2002
(ABD milyon)				
Malların və xidmətlərin ixracı	2,369	2,667
Malların və xidmətlərin idxalı	2,130	3,121
Ehtiyat balans	239	-454
Təmiz gəlirlər	-367	-385
Təmiz cari transferlər	77	70
Cari mühasibat balansı	-52	-768
Maliyyələşdirmə (netto)	317	965
Təmiz ehtiyatlarda dəyişikliklər	-266	-197
Yaddaş:				
Qızıl daxil olmaqla ehtiyatlar (ABD milyon)	725	721
Mübadilə dövrəsi (yarlı ABD)	..	54.2	4,656.7	4,860.7



XARİCİ BORC və EHTİYATLARIN AXIMI

	1982	1992	2001	2002
(ABD milyon)				
Ödənilmiş və qalıq ümumi borc	1,266	1,438
AYİB	0	0
BİA	235	314
Ümumi borc sığdırma	132	187
AYİB	0	0
BİA	2	2
Təmiz ehtiyatların axımının tərkibi				
Rəsmi qranlar	45	..
Rəsmi kreditör	88	179
Özəl kreditör	36	-79
Birbaşa xarici investisiya	227	..
Səhmlər paketi equity	0	..
Dünya Bankının proqramı				
Öhdəliklər	50	82
Ödənişlər	28	57
Prinsipial ödənişlər	0	0



ELEKTRİK ÖTÜRÜCÜ SİSTEMİ LAYİHƏSİ

A. MALİYYƏ TƏHLİLİN XÜLASƏSİ

1. İqtisadi və maliyyə analizləri (səh. 18, 69)

1.1 Gəlir-Xərc Analizi: Təklif olunan layihədən əldə olunacaq potensial gəlirlərə daxildir (i) xətlərdə ötürmə zamanı yaranan itkilərin azaldılması və elektrik stansiyalarının iqtisadi cəhətdən daha səmərəli istifadəsi yolu ilə elektirik enerjisinin dəyərinin azaldılması; (ii) sənaye, kommersiya və əhaliyə verilən təchizatın etibarlılığının artması; (iii) məcburi açılmaların və əlavə zədələnmələrin qarşısını almaq yolu ilə texniki xidmət və təmir xərclərinin azaldılması; (iv) sistemin vəziyyətinin və onun tələblərinin daha yaxşı bilmək yolu ilə regional enerji ticarətində iştirakda böyük imkanların yaranması; və (v) mövcud resurslardan daha səmərəli istifadə etmək yolu ilə istahsal və ötürmə sisteminə yatırılacaq yeni potensial investisiyalardan qaçılması.

Layihənin maliyyə təsirini enerji sektor üçün tələb olunan dövlət dəstəyinin (elektrik stansiyasının yanacaq təchizatı ilə əlaqədar olaraq, maliyyələşdirmənin şərtlərində) orta müddətdə azalması, büdcə təşkilatları tərəfindən istifadə edilən elektrik enerjisi xərclərinin azalması, və tarif artımlarına tələbatın azalması nəticəsində gəliri aşağı olan əhali qruplarına verilən subsidiyaların səviyyəsinin azalması təşkil edəcəkdir.

Table 10: Maliyyə üzrə Nəticələrin Xülasəsi

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	Fakt	Qiymet.	Plan.								
Tarif (manat/kVts - EDV-siz)(nominal)											
Topdansatis	71	71	71	108	122	137	154	173	171	171	172
Perakende	178	100	100	137	151	166	183	202	200	200	200
Dovriyyeden Yiqımlar	36,0%	50,7%	58,6%	68,8%	71,5%	81,8%	90,0%	101,1%	112,5%	112,3%	112,1%
Debitor Borclar	9 288	10 270	11 047	11 927	12 840	13 505	13 919	13 866	13 275	12 684	12 093
Neqd Vesait Aximi Netto	(804)	(337)	-	-	-	-	-	135	644	620	594
ondan: Borc Xidmetlerine	121	114	115	137	264	653	712	697	677	647	615
Gelirler Netto	386	1 193	438	867	1 047	1 129	908	570	544	516	487
Dovriyyeden Odememeler	(897)	(890)	(776)	(880)	(914)	(664)	(415)	53	591	591	590
Sehmlere Yatirimler/Subsidiyalar	(52)	2 039	1 747	1 328	1 474	1 419	851	-	-	-	-
İlin sonuna Kassa Qaliqi	112	122	122	122	122	122	122	257	900	1 520	2 114
Esas Fondların Qaliq Deyeri	3 064	3 032	3 071	4 087	5 831	7 082	7 434	7 417	7 400	7 381	7 362
Uzun Muddetli Borclar	1 535	1 520	1 629	2 711	4 414	5 289	5 211	4 754	4 288	3 822	3 355
Sehmdarların Payı	2 702	4 275	4 713	5 580	6 627	7 755	8 663	9 233	9 777	10 293	10 781
Umumi Kapital Qoyulusu	218	-	217	1 245	2 057	1 630	763	412	430	449	468
Borc Xidmetleri Normasi (cari ile esasen)	0,8	2,0	1,3	1,9	2,6	3,0	2,8	2,3	2,2	2,1	2,0
Yeniden Qiymetlendirilmis Esas Fondların Qaliq Deyeri uzre Gelir	0,0%	52,2%	14,3%	21,2%	17,9%	15,9%	12,2%	7,7%	7,4%	7,0%	6,6%
Likvidlik Kofisienti	1,1	1,3	1,3	1,4	1,5	1,6	1,7	1,7	1,7	1,7	1,7

Cədvəl 11: Gəlirlər üzrə Hesabatın Təqribi Forması

	Fakt 2003	Qiymətləndir. 2004	Planlaşdır. 2005	2006	2007	2008	2009	2010	2011	2012	2013
Elektrik Enerjisinin Satışı (milyon kVt)	21 244	23 800	24 759	25 111	25 468	25 830	26 197	26 569	27 000	27 436	27 880
Topdansatış	19 663	22 028	22 916	23 242	23 572	23 907	24 247	24 591	24 990	25 394	25 805
Perakendesatış	1 581	1 772	1 843	1 869	1 896	1 923	1 950	1 978	2 010	2 042	2 075
Tarif (Manat/kVt) - EDV-siz											
Topdansatış	71	71	71	108	122	137	154	173	171	171	172
Perakendesatış (orta)	178	100	100	137	151	166	183	202	200	200	200
Istilik Enerjisinin Satışı (000 Gkal)	816	816	816	816	816	816	816	816	816	816	816
Tarif (Manat/Gkal) - EDV-siz	66 263	66 263	66 263	66 263	66 263	66 263	66 263	66 263	66 263	66 263	66 263
Umumi Gəlirlər (EDV netto)											
Elektrik Enerjisi - Topdansatış	1 396 073	1 572 298	1 635 705	2 513 441	2 867 084	3 269 660	3 727 915	4 249 674	4 268 459	4 340 540	4 426 076
Elektrik Enerjisi - Perakendesatış	280 741	177 763	184 932	256 278	285 488	318 644	356 288	399 051	401 491	408 229	416 065
Istilik	54 071	54 071	54 071	54 071	54 071	54 071	54 071	54 071	54 071	54 071	54 071
Cəmi Umumi Gəlirlər	1 730 885	1 804 132	1 874 708	2 823 790	3 206 643	3 642 375	4 138 274	4 702 797	4 724 020	4 802 840	4 896 212
Emteənin Maya Deyəri											
Yanacaq	1 664 873	1 907 621	2 195 959	2 291 746	2 385 099	2 482 181	2 583 133	2 688 204	2 803 406	2 923 343	3 048 419
ondan: Qaz	870 913	1 430 716	1 681 782	1 751 411	1 822 753	1 896 946	1 974 096	2 054 394	2 142 434	2 234 093	2 329 679
Mazut	793 960	476 905	514 178	540 335	562 346	585 235	609 037	633 810	660 972	689 250	718 739
Alınmış Elektrik Enerjisi	536 366	248 334	256 529	265 507	272 145	278 949	285 922	293 071	300 397	307 907	315 605
Emək Haqqı	58 159	62 872	66 225	69 018	71 235	73 524	75 885	78 323	80 918	83 597	86 366
Sosial Vergilər	16 866	-	-	-	-	-	-	-	-	-	-
Təmir və Texniki Xidmət	80 216	74 284	78 246	81 546	84 166	86 869	89 659	92 540	95 606	98 771	102 043
Amortizasiya Ayırmaları	110 600	106 063	178 908	229 280	312 705	379 118	410 936	428 780	447 422	466 898	487 248
İnzibati və Digər	75 620	89 384	94 152	98 123	101 275	104 528	107 885	111 351	115 041	118 850	122 786
Cəmi Emteənin Maya Deyəri	2 542 700	2 488 558	2 870 018	3 035 221	3 226 625	3 405 168	3 553 421	3 692 269	3 842 790	3 999 367	4 162 467
Emeliyyatlardan Gəlirlər Netto	(811 815)	(684 426)	(995 311)	(211 431)	(19 982)	237 206	584 853	1 010 528	881 231	803 473	733 744
Layihə ilə əlaqədar Maya Deyəri üzrə Qənaətlər											
Layihənin idarəedilməsi və texniki xərcləri	-	-	(4 234)	(8 710)	(7 752)	(2 285)	(250)	-	-	-	-
Faiz və Ohdəliklər üzrə haqlar	(27 462)	(24 642)	(26 109)	(63 046)	(141 616)	(205 331)	(213 239)	(194 574)	(169 513)	(142 687)	(114 616)
Digər Gəlirlər (netto)	3 604	3 680	3 801	3 934	4 033	4 133	4 237	4 343	4 451	4 562	4 676
Vergilər çıxılmaqla Təmiz Gəlir	(32 368)	(32 129)	(32 580)	(43 690)	(61 516)	(74 460)	(78 479)	(78 875)	(78 720)	(78 615)	(78 516)
Vergilər və Subsidiyalardan əvvəl Gəlirlərin Nettosu	(868 041)	(737 517)	(1 054 432)	(322 944)	(226 834)	(40 736)	332 101	806 496	705 245	657 361	618 866
Emeliyyatlar ucun Subsidiyalar	1 253 838	2 008 080	1 746 891	1 328 025	1 474 416	1 419 073	851 492	-	-	-	-
Gəlirdən Vergilər		77 159	254 113	138 492	201 016	249 516	275 667	236 719	161 299	141 049	131 472
Vergilərdən sonra Gəlirlərin Nettosu	385 797	1 193 404	438 346	866 590	1 046 566	1 128 820	907 926	569 778	543 946	516 312	487 394

Cədvəl 12: Mühəsibat uçotu üzrə Hesabatın Təqribi forması

	Fakt 2003	Qiymet. 2004	Layihə. 2005	2006	2007	2008	2009	2010	2011	2012	2013
AKTİVLER											
Esas fondlar											
Binalar, qurular və avadanlıqlar	3 898 457	3 792 790	4 009 769	5 255 201	7 312 212	8 942 124	9 705 355	10 117 294	10 547 121	10 995 635	11 463 673
Toplanmış Amortizasiya Ayırmaları	(1 475 096)	(1 421 683)	(1 600 591)	(1 829 871)	(2 142 576)	(2 521 694)	(2 932 629)	(3 361 410)	(3 808 831)	(4 275 730)	(4 762 978)
Dovriyyədə olan Kapital	640 358	661 332	661 332	661 332	661 332	661 332	661 332	661 332	661 332	661 332	661 332
<i>Netto Qurqu və Avadanlıqlar</i>	<i>3 063 719</i>	<i>3 032 439</i>	<i>3 070 511</i>	<i>4 086 662</i>	<i>5 830 968</i>	<i>7 081 763</i>	<i>7 434 058</i>	<i>7 417 216</i>	<i>7 399 621</i>	<i>7 381 237</i>	<i>7 362 026</i>
Diger Uzun Muddətli Aktivler											
Vaxti Uzadılmış Debitor Borclar (dondurulmuş)	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400
Netto Qeyri-Material Aktivler	147	200	200	200	200	200	200	200	200	200	200
Maliyyə İnvestisiyaları	59	59	59	59	59	59	59	59	59	59	59
<i>Cemi Diger uzre</i>	<i>7 422 606</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>	<i>7 422 659</i>
Dovriyyə Vasaitleri											
Kassa və Bank Hesabları	112 263	121 994	121 994	121 994	121 994	121 994	121 994	277 432	921 449	1 541 457	2 136 334
Qısa Muddətli İnvestisiyalar											
Debitorlar - Perakende	9 288 426	10 270 140	11 046 519	11 926 788	12 841 464	13 507 418	13 923 639	13 870 329	13 278 718	12 687 432	12 096 522
Debitorlar - Diger	584	12 506	12 506	12 506	12 506	12 506	12 506	12 506	12 506	12 506	12 506
Umidsiz Borclar ucun Kicik Faizler											
Material Qaliqları	89 022	117 989	134 416	176 165	245 121	299 759	325 344	339 153	353 562	368 597	384 286
Gelecek Xercler	67 813	83 345	83 345	83 345	83 345	83 345	83 345	83 345	83 345	83 345	83 345
Vergilər (netto)	1 178 878	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697	1 113 697
Diger Dovriyyə Vasaitleri	15 975	89 144	92 086	95 309	97 691	100 134	102 637	105 203	107 833	110 529	113 292
<i>Cemi Dovriyyə Vasaitleri uzre</i>	<i>10 752 961</i>	<i>11 808 815</i>	<i>12 604 563</i>	<i>13 529 804</i>	<i>14 515 819</i>	<i>15 238 853</i>	<i>15 683 162</i>	<i>15 801 665</i>	<i>15 871 110</i>	<i>15 917 562</i>	<i>15 939 982</i>
Cemi Aktivler uzre	21 239 286	22 263 913	23 097 733	25 039 125	27 769 445	29 743 275	30 539 878	30 641 541	30 693 390	30 721 458	30 724 667
PASSIVLER											
Sehmdarların Xüsusi Kapitali											
İlkin Kapital	483 267	485 119	485 119	485 119	485 119	485 119	485 119	485 119	485 119	485 119	485 119
Kapital Qoyuluşları	1 370 483	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759	1 399 759
Yenidənqiymetlendirilmiş Ehtiyatlar	40	40	40	40	40	40	40	40	40	40	40
Bolusdurulmemiş Gelirler	696 651	633 882	2 217 430	2 655 776	3 522 366	4 569 983	5 700 485	6 610 070	7 200 517	7 744 462	8 260 774
Ustegel cari dövr üzre gelirler	304	1 583 548	438 346	866 590	1 047 616	1 130 502	909 585	590 447	543 945	516 312	487 394
Kicik Odemeler	(304)										
Diger Ehtiyatlar	152 009	172 728	172 728	172 728	172 728	172 728	172 728	172 728	172 728	172 728	172 728
<i>Cemi Kapital uzre</i>	<i>2 702 450</i>	<i>4 275 076</i>	<i>4 713 422</i>	<i>5 580 012</i>	<i>6 627 629</i>	<i>7 758 131</i>	<i>8 667 716</i>	<i>9 258 163</i>	<i>9 802 108</i>	<i>10 318 420</i>	<i>10 805 814</i>
Uzun Muddətli Ohdelikler											
Xarici Kreditler	1 535 448	1 519 859	1 628 669	2 710 595	4 413 977	5 288 892	5 210 536	4 753 511	4 287 965	3 821 592	3 354 545
Yenidənqiymetlendirilmiş Valyuta Ehtiyatları			(5 123)	(26 031)	(59 222)	(103 781)	(151 854)	(197 565)	(239 208)	(276 742)	(310 160)
Vaxti Uzadılmış Borclar (dondurulmuş kreditorlar)	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400	7 422 400
Yerli Borclar											
<i>Cemi Uzun Muddətli Ohdelikler</i>	<i>8 957 848</i>	<i>8 942 259</i>	<i>9 045 946</i>	<i>10 106 964</i>	<i>11 777 155</i>	<i>12 607 511</i>	<i>12 481 082</i>	<i>11 978 346</i>	<i>11 471 157</i>	<i>10 967 249</i>	<i>10 466 784</i>
Cari Ohdelikler											
Kreditor Borclar - Kommersiya	7 896 187	7 875 801	8 165 298	8 176 781	8 187 579	8 198 792	8 210 435	8 222 536	8 235 724	8 249 434	8 263 709
Emek haqqı və Sosial Sığorta Odenisteri	9 923	5 119	5 519	5 752	5 936	6 127	6 324	6 527	6 743	6 966	7 197
Budce	676 391	623 010	623 010	623 010	623 010	623 010	623 010	623 010	623 010	623 010	623 010
Alınmış Avanslar	327 169	287 276	287 276	287 276	287 276	287 276	287 276	287 276	287 276	287 276	287 276
Diger Cari Ohdelikler	71 162	57 236	59 125	61 194	62 724	64 292	65 899	67 547	69 236	70 966	72 741
Qısa Muddətli Borclar	598 156	198 136	198 136	198 136	198 136	198 136	198 136	198 136	198 136	198 136	198 136
<i>Cemi Cari Ohdelikler</i>	<i>9 578 988</i>	<i>9 046 578</i>	<i>9 338 364</i>	<i>9 352 149</i>	<i>9 364 661</i>	<i>9 377 633</i>	<i>9 391 081</i>	<i>9 405 032</i>	<i>9 420 125</i>	<i>9 435 789</i>	<i>9 452 069</i>
Total Liabilities and Equity	21 239 286	22 263 913	23 097 733	25 039 125	27 769 445	29 743 275	30 539 878	30 641 541	30 693 390	30 721 458	30 724 667

Cədvəl 13: Nəqd Vəsait Axımı üzrə Hesabatı Təqribi Forması

	Fakt	Qiymətlənd.	Layihə								
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Maliyyə Fondlarının Membələri											
Faiz Dərəcələrinə, Vergilərdən əvvəl Gəlirlər	(840 579)	(712 874)	(1 028 323)	(259 898)	(85 219)	164 595	545 339	1 001 071	874 758	800 048	733 483
Əlavə Amortizasiya	110 600	106 063	178 908	229 280	312 705	379 118	410 936	428 780	447 422	466 898	487 248
Daxildə Yaranmış Nəqd Vəsəit	(729 979)	(606 811)	(849 416)	(30 617)	227 486	543 712	956 275	1 429 851	1 322 180	1 266 946	1 220 731
Xarici Maliyyə											
Xarici Borclar	118 038	-	192 273	1 135 453	1 792 586	1 278 183	371 893	-	-	-	-
Yerli Borclar	-	-	-	-	-	-	-	-	-	-	-
Hökumət Subsidiyaları	1 253 838	2 008 080	1 746 891	1 328 025	1 474 416	1 419 073	851 492	-	-	-	-
Hökumətin Səhmiyə Yatırımları	(1 306 128)	31 128	-	-	-	-	-	-	-	-	-
Cəmi Xarici Maliyyə	65 748	2 039 208	1 939 164	2 463 479	3 267 002	2 697 256	1 223 385	-	-	-	-
Cəmi Membələr	(664 231)	1 432 397	1 089 749	2 432 861	3 494 488	3 240 968	2 179 661	1 429 851	1 322 180	1 266 946	1 220 731
Maliyyə Fondlarından İstifadə											
Kapital Qoyuluşları											
İnvestisiya üzrə Yeni Layihələr	217 926	-	190 463	1 155 978	1 827 731	1 316 444	383 188	-	-	-	-
Kapitalaşdırılmış Texniki Xidmət	-	-	26 516	89 454	229 280	313 468	380 043	411 939	429 827	448 514	468 038
Borc üzrə Xidmət											
Borc Odenisi	93 238	88 889	88 585	74 436	122 394	447 828	498 322	502 736	507 189	503 908	500 465
Faiz üzrə Odenisler/Ohdeliklər üzrə Haqlar	27 462	24 642	26 109	63 046	141 616	205 331	213 239	194 574	169 513	142 687	114 616
Digər											
Odenilmiş Vergilər	-	77 159	254 113	138 492	201 016	249 516	275 667	236 719	161 299	141 049	131 472
Odenilmiş Dividendlər											
Nəqsiz Dövriyyə Kapitalında Artma/(Azalma)	(198 527)	1 578 533	503 962	911 456	972 451	708 380	429 202	(50 946)	(589 197)	(588 742)	(588 258)



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PUBLIC INVESTMENT POLICY PROJECT

TRAINING WORKSHOP FOR TECHNICAL STAFF

**Prioritization of Investment
Programs and Projects**



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PRIORITIZATION OF PROGRAMS AND PROJECTS

Quantitative Prioritization:

Introductory Questions

- Why analyze public investments quantitatively if they are already filtered on policy basis?
- If the financial analysis of projects is not suitable to most public investment projects, what shall we do?
 - How shall we address the valuation (pricing) issue?
 - How to treat indirect costs and benefits (externalities)?
 - How to quantitatively analyze the projects whose benefits cannot be measured?



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PRIORITIZATION OF PROGRAMS AND PROJECTS

Quantitative Prioritization:

Why needed?

- Policy-filtering determines whether a public investment is suitable for the PIP if “profitable”;
- But profitability or efficiency of a project can be determined only by quantitative analysis.
- Quantitative prioritization can be applied to policy filtered projects either independently of or jointly with policy-based ranking and weighting.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Its Usage for Public Investment

- We said it’s the main project selection tool in the private sector;
- What use could be made of it in evaluating public investments?
 - It could be useful in evaluating SOEs’ projects (why?), even though project selection is to be made on economic analysis;
 - Financial analysis will provide a useful starting ground for the economic analysis that uses different definition of C & B and adjusted market prices; and
 - The financial analysis of public investment projects will help judge whether and how they can be sustainable.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Relevant Project Characteristics

- Commercially operated projects, whether with public or private ownership, which expect to generate sufficient revenues to cover:
 - All necessary capital costs, and
 - All operating costs:
 - Production costs;
 - Amortization of intangible investment expenditures and depreciation of fixed assets;
 - Debt service; and
 - Generation of a profit for compensating investors and reserve accumulation (what about "break-even" projects?).

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Relevant Project Characteristics (cont.)

- Non-commercially operated projects, which do not produce sufficient revenues, rely on external support:
 - To cover either capital or operating costs or both;
 - By either the government or international aid or both; and
 - The need for external support indicates that the project's worth lies in benefits it creates for the society rather than financial benefits.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Relevant Project Characteristics (cont.)

- For a new commercially operated project, FIRR or NPV criterion provides the basis for the decision;
- But for a commercial expansion project, two steps are needed:
 - First, appraise the worth of the additional investment and related benefits and costs; and
 - Second, the worth of the total enterprise including the additional project should be analyzed and assessed.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Some Analytical Concepts

- Budget:
 - Investment (capital) budget: the cost of all facilities that must be in place before the project begins its activities;
 - operating budget covers all costs incurred for the activities to be carried out; and
 - a cash flow budget shows different sources of funds to cover the capital and operating costs.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Some Analytical Concepts (cont.)

- Financial costs and benefits:
 - “Financial costs” are all expenditures paid for executing a project activity, including investment and operating cost;
 - “Benefits” include revenues received and intangibles (e.g., better education or health). The latter, even if can be put in monetary terms, is not included in the financial analysis;
 - Government contributions or foreign grants are revenues;
 - A project is not financially viable if its “financial worth” (the sum of net monetary benefits) is negative, but may still be justified on social or economic benefits; and
 - Since all costs and benefits accrue over time in different amounts, they must be reduced to a common denominator, the present value equivalent, by appropriate discounting.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Some Analytical Concepts (cont.)

- Data used in financial analysis:
 - Revenue estimates:
 - the number of output units sold x the likely price per unit;
 - Consider “high”, “low” and “probable” prices for sensitivity tests;
 - Consider the “learning curve” for the build-up of production to full-capacity production; and
 - Revenue estimates will be difficult for non-commercial projects because they are often based on administrative prices.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Some Analytical Concepts (cont.)

- Cost estimates:
 - “cost estimates” include both capital & operating expenses;
 - Physical and inflation contingencies must be estimated;
 - If inflation is expected to affect the sales and input prices differently, this must be considered in the financial analysis;
 - Sufficient “working capital” during the construction period;
 - “capitalize” interest payments of the construction period.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Projects: Some Analytical Concepts (cont.)

- Financial statements:
 - The “pro forma” statements for future performance of a firm;
 - The Income Statement (Profit and Loss Statement) shows the categories of revenues and expenditures, including non-cash charges to income (depreciation, deferred taxes, etc);
 - The Balance Sheet shows the entity’s assets and liabilities:
 - Current assets: cash and convertible to cash within one year;
 - Fixed assets: land, building, equipment with life of 1 year+;
 - Other long-term assets: cost of R&D and outside engineering;
 - “Statement of Sources and Uses of Funds”

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Commercial Projects

- What are the objectives of the financial analysis?
 - Estimate the “financial worth” of the project (FIRR);
 - Assure “return on equity” is adequate;
 - Assure “financial resources=>investment+operating costs”
 - Cash flow analysis: receipts & payments are synchronized
 - Assure that the “debt service coverage” is provided.
 - Sensitivity analysis.



PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Commercial Projects (cont.)

- Methods of Analysis: The data in the financial statement is analyzed with the help of some ratios:

– FIRR= (i) , which makes:
$$\sum_{t=1}^n \frac{Bt}{(1+i)^t} - \sum_{t=1}^n \frac{Ct}{(1+i)^t} = 0$$

– NPV= $\sum_{t=1}^n \frac{Bt}{(1+i)^t} - \sum_{t=1}^n \frac{Ct}{(1+i)^t}$, where (i) chosen in advance and

if NPV=or>0, the project is acceptable



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Financial Analysis of Commercial Projects (cont.)

- **Net Profit = All revenues – All costs**
 - Costs = production costs + administrative (overhead) costs + import duties + taxes + depreciation + amortization + interest on debt
 - The best measures of a project's profitability are FIRR and NPV because they consider benefits' and costs' time profiles beyond the annual statements.
 - Some ratios as indicators of the overall efficiency of funds' use:
 - Annual net profit / sales
 - Annual net profit / total assets
 - Annual net profit / equity
- **Leverage is the effect of debt on the profitability of an equity investment;**
 - The debt / equity ratio measures the effect of debt on the project stability;
 - Consider both short- and long-term debt in computing the debt/equity ratio.

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Financial Analysis of Commercial Projects (cont.)

- The Liquidity Analysis ascertains if all the expected expenses in a year are covered by expected receipts. The relevant ratios:
 - The current ratio = current assets / current liabilities.
 - Current assets=cash+marketable securities+receivables+inventories
 - Current liabilities=taxes+short term loan repayments+annual principal repayments of long term loans+accounts payable
 - The quick ratio ("acid test")=(current assets-inventories) / current liabilities.
 - Debt service coverage=sources of funds/debt service requirement

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Financial Analysis of Commercial Projects (cont.)

- **Sensitivity Analysis:**
 - There will always be sufficient uncertainties in most estimates and assumptions underlying any project's profitability and financial stability; hence need for examining the effects of changes in them.
 - Particularly important factors are: construction and operating costs, sales prices, total production, and the length of construction period.
 - If tests with changes in these factors show that the project will not be financially viable, then estimate the probability of a given change.
- Such assessment of probability is called "risk analysis", and taking steps to minimize it is called "risk management".

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Non-Commercial Projects

- **Scope of Analysis:**
 - Most public sector investments are aimed at improving socio-economic infrastructure of the country;
 - Such projects often do not generate any or sufficient revenues;
 - Hence, FIRR and NPV cannot be calculated to justify them;
 - The role of financial analysis is to determine whether the project will
 - Achieve its expected results at the least cost possible, and
 - Have sufficient resources available to meet its costs on time.

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Financial Analysis of Non-Commercial Projects

- **Cost Effectiveness Analysis (CEA):**
 - Benefits and costs are identified, but only costs are monetized;
 - Benefits are difficult or impossible to quantify and to express in monetary terms;
 - CEA can take three basic approaches:
 - First establish the expected result and then examine different means of achieving that result;
 - In the second approach, a predetermined funding is available in a certain area (child health care) and the consequences of using that money in alternative ways are examined;
 - Identify a number of results required for a Strategic Objective and examine the cost differences to achieve them, and then consider which results seem most reasonable in view of the costs involved.
 - Unit cost = (annualized investment costs + annual operating costs) / annual number of output units.

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Financial Analysis of Non-Commercial Projects

- **Recurrent Cost Analysis:**
 - Recurrent costs (operating expenditures) include:
 - Wage and salary payments
 - Utility costs
 - Raw material purchases
 - Maintenance and repair expenses
 - Replacement of worn-out equipment
 - Debt service payments, etc.
 - The financial analysis must examine whether or not sufficient funds are made available to cover these costs when needed during the life of the project.

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PRIORITIZATION OF PROGRAMS AND PROJECTS

Financial Analysis of Non-Commercial Projects

- Recurrent Cost Analysis:
 - Prepare the annual budget of the project, containing all operating expenditures and sources of funds;
 - Examine the government's past recurrent cost performance and the projections for the coming years, particularly w.r.t. the project sector
 - If the above analyses show potential problems, then
 - Modify the project design (e.g., user fees and other revenue measures)
 - Analyze the project impact on government revenues and expenditures in case the net revenue impact may justify the needed govt support;
 - Analyze the likelihood of other donors providing support to the project;
 - Analyze the causes of persistent recurrent cost problems and remedies
 - Consider abandoning the project.

**AZERBAIJAN
PUBLIC INVESTMENT POLICY (PIP) PROJECT
TRAINING WORKSHOP FOR TECHNICAL STAFF**

**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT
ANALYSIS AND PERFORMANCE ASSESSMENT:
FROM KEY CONCEPTS TO PRACTICE**

**Mid-Training Workshop Test on Nov. 25, 2006
Questions and Answers**

Part I: (each question has a value of 3 percentage points for the correct response)

Please give your response to the questions listed below.

- (1) What are the main stages (in correct order) of the Project Life Cycle? And what should be key outputs for each stage?
- (2) Financial analysis of a project is carried out only for (a) the private sector projects or (b) commercial projects.
- a) _____ True _____ False; Reason:
- b) _____ True _____ False; Reason:
- (3) In the Project Lifecycle, the economic rationale of the project is established at the preparation stage.
- _____ True _____ False
- (4) Some large projects may have considerable impact within local and the national economy. For such projects there should be a discussion of the _____ effects.
Choices:
- (8) Financial analysis:
- (a) Estimates the profit coming to the project operating entity.
 - (b) Measures economic profit by the effect of the project on the economy.
 - (c) Calculates the financial cost of the project.
 - (d) Determines the discount rate to attract investment from the international financial markets.

(9) Economic analysis:

- (a) Estimates the profit accruing to the project operating entity.
- (b) Measures economic profit by the effect of the project on the economy
- (c) Calculates the financial cost of the project
- (d) Determines the discount rate to attract investment from the international financial markets

(10) For estimating the incremental net benefits, there is a need to take the difference between:

- (a) without-project and with-project situation
- (b) before project and with-project situation

(13) In the financial analysis of projects, contingencies include the cost of physical and price contingencies.

_____ True _____ False. Give reason.

(14) The risk analysis involves:

- (a) The risks and assumptions, which are not under direct project control and can have a negative impact on the project's output.
- (b) The risks and assumptions, which are under direct project control and can have a negative impact on the project's output.
- (c) The risks and assumptions, which are under direct project control and can have a positive or negative impact on the project's output.

(15) In the economic analysis, we must define prices. These are the same financial prices used in the financial analysis of the project.

_____ True _____ False, Reason:

(20) Net present value is the discounted value of net benefits over the life of the project. Accept all projects and subprojects in which the NPV is _____

- (a) less than zero
- (b) approaching zero
- (c) greater than zero

(d) greater than or equal to zero

PART II: value of 25% of the mid-term exam test.

Please outline briefly (not more than 1 page, handwritten) your **initial follow-up action plan** for utilizing and applying (over the next 6 months) the relevant principles and tools that you are learning in this training workshop to your current work responsibilities.

(Suggestion: Please outline the specific task, how you plan to approach your task in applying key concepts and tools, identify the key assumptions for being able to carry out the task, and the main risks (factors outside your control which could impede your task).

Exercise: Sensitivity Analysis

1. An irrigation rehabilitation project is used here to illustrate the application of sensitivity analysis. (A summary of the Project is provided in Appendix 17 of the Guidelines, and the processes for analysis of sensitivity and risk described further in Appendix 21).
2. The project involves a predicted increase in cropped area for irrigated rice, in cropping intensity, and in yield, as a result of rehabilitation, with a compensating decline in vegetable cropped area. The base case result, EIRR of 19.0 percent and economic NPV of Rs1,440 million at 12 percent discount rate, is also based on a long-term relative economic price decline for rice and a long-term relative economic price increase for fertilizer. There are a number of main variables to which the base case may be sensitive, and which are discussed below.
3. On the basis of previous rehabilitation projects in similar areas of the country, there is uncertainty over the farmer response to improved irrigation. Postevaluation studies indicate the possibility of lower values for cropped rice area, cropping intensity and yield by 9, 10 and 6 percent, respectively. There is also uncertainty over the levels of rice cropping intensity and yield of both vegetables and rice without the project; and so increases in these variables of 10 percent each have been included in the sensitivity tests.
4. The forecast prices of rice and fertilizer should be key variables in the project analysis, as the project will increase both the quantity of rice output and the quantity of fertilizer input. In the sensitivity analysis, the forecast price of rice, which declines over the first ten years of the project anyway, is predicted to follow the same pattern but to be at the level of the lower range of the 70 percent distribution given together with the basic World Bank price forecasts. This is equivalent to a price nearly 39 percent lower than in the base case. On a similar basis, the fertilizer price is tested at a price just over 42 percent higher than in the base case, at the higher range of the 70 percent distribution.
5. Other variables are also included in the sensitivity analysis. Firstly, there have been delays in the implementation of similar previous projects, and a two-year delay in the delivery of benefits is considered here. Secondly, the effect of a 10 percent higher investment cost is tested. Thirdly, the project benefits depend upon continued maintenance activities; rather than a higher level of maintenance costs, the last five operating years of the project are excluded to allow for the possibility of inadequate maintenance activity. Fourthly, the two principal shadow price factors, the SERF and the SWRF, are subjected to lower and higher values, respectively, by 10 percent. Finally, some combinations of variables are also tested.
6. The results of these sensitivity tests on underlying and specific benefit and cost factors are given in Table 1. Net present values at a 12 percent discount rate, internal rates of return and both sensitivity indicators and switching values have been included for each sensitivity test.

Table 1. Results of Sensitivity Analysis: Irrigation Rehabilitation Project

Item	Change (%)	NPV (Rs mn)	IRR (%)	Sensitivity Indicator	Switching Value (%)
Base Case		1,440	19.0		
Costs					
Investment Costs	+10.0	1,291	17.9	1.03	97
Fertilizer, economic price	+42.1	753	15.8	1.13	88
Benefits					
Rice economic price	-38.9	-1,427	1.7	5.12	-20
With:					
Rice area	- 9	1,298	18.3	1.10	-91
Rice cropping intensity	- 10	446	14.3	6.90	-14
Rice yield	- 6	844	16.2	6.90	-14
Without:					
Rice cropping intensity	+ 10	873	16.3	3.94	25
Rice yield	+ 10	873	16.3	3.94	25
Vegetables yield	+ 10	1,162	17.7	1.93	52
Delay in Benefits				NPV declines by	
Two years		636	14.9	75 percent.	
Operating Life				NPV declines by	
Reduced five years		1,250	18.6	13 percent.	
Shadow Price Factors					
SERF	- 10	1,084	17.7	2.47	-40
SWRF	+ 10	1,383	18.6	0.40	253
Discount rate (14%)				NPV declines by	
		889	19.0	38 percent.	
Combinations					
A. Investment Cost	+ 10				
Fertilizer price	+ 10				
Rice, vegetable yield,	- 10	- 16	11.9	10.10	
with					
B. As A, plus	- 10	- 612	8.7	14.25	
Rice economic price					

IRR = Internal rate of return

NPV = Net present value

Tasks:

- Using the switching values, identify the three variables for which the largest change are required for the project decision to change.
- Using the switching values, identify the three variables for which the lowest change is required for the project decision to change; comment on the likelihood of this event.
- Using sensitivity indicators, identify the three individual variables (i.e., excluding combinations of variables) to which project NPV is most sensitive.
- Using sensitivity indicators, identify the three individual variables to which project NPV is least sensitive.

- e) Using sensitivity indicators, comment on the sensitivity of rice economic price as an individual variable and in combination with other variables.
- f) Using your judgment comment on whether you feel the project is at risk or not, and why?
- g) What implications, if any, does your sensitivity analysis have for project design and management (e.g., for monitoring of the delivery of benefits)?
- h) What variables may be sources of risk over which the project has no control?

Solution

Exercise: Solution ***Sensitivity Analysis***

(Refer to Appendix 21 of the *Guidelines for Economic Analysis of Projects*, 1997 as a complement to the solution set.)

- a. Based on switching values resulting from the sensitivity testing, the three variables for which the largest changes are required for the project decision to change are (in descending order of magnitude) SWRF, investment costs, and rice area with the project.
- b. Again based on switching values, the three variables for which the lowest change are required for the project decision to change are (in ascending order of magnitude) rice cropping intensity with the project (-14%) and rice yield with the project (-14%), and the economic price of rice (-20%).
- c. Based on sensitivity indicators resulting from the sensitivity testing, the three individual variables most sensitive to change are the same ones identified in Task b.
- d. Based on sensitivity indicators, the three individual variables least sensitive to change are the same as those identified in Task a.
- e. As an individual variable, rice economic price is one of the variables most sensitive to change where the likely price decline of 38.9 percent will result in a sensitivity indicator of 5.12. On the other hand, after considering combinations of changes in investment cost, fertilizer price, rice yield (with) and vegetable (with), the incremental effect of rice economic price on the sensitivity indicator is still large at 4.25 considering the decline in price of only 10 percent.
- f. The project is at risk as only relatively modest changes (in historical terms) in values of major variables will make the investment unattractive.
- g. Cropping intensity and rice yields should be monitored closely in the early years of the project to ensure that projected targets are being met. Similarly, the relative economic attractiveness of rice production vis-à-vis vegetable production should be monitored to ensure that farmers have an incentive to produce rice.
- h. The economic prices of rice and fertilizer are beyond the control of the project. These should be explicitly specified in the 'risks and assumptions' column of the Project Framework.



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PUBLIC INVESTMENT POLICY PROJECT

TRAINING WORKSHOP FOR TECHNICAL STAFF

**PUBLIC INVESTMENT POLICY and INTEGRATED PROJECT
ANALYSIS**

ECONOMIC ANALYSIS OF PROJECTS

**(Identification, Quantification and Valuation of Costs
and Benefits)**



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ECONOMIC ANALYSIS OF PROJECTS

Identification and Quantification of Costs and Benefits

- **General Principles:**
 - Main steps for analyzing the economic viability of a project:
 - Identify economic costs and benefits;
 - Quantify them;
 - Value them; and
 - Compare the benefits with the costs.
 - The comparison of with- and without-project situations is at the heart of the estimation of benefits of any project.
 - Effects of marginal v. large projects.
 - Importance of the distinction between nonincremental and incremental output and inputs.



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ECONOMIC ANALYSIS OF PROJECTS

Identification and Quantification of Costs and Benefits

- **Costs:** the difference in costs between the without- and with-project situation;
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 - The tax/subsidy is included in the economic cost if it is to correct an externality;
 - Any tax element in the market price of a marketable output will be included in its economic value.

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ECONOMIC ANALYSIS OF PROJECTS

Identification and Quantification of Costs and Benefits

- **Costs (cont.):**
 - Depreciation: the economic cost flow already includes real initial investment and replacement/maintenance investments;
 - Depletion premium: nonrenewable natural resources cannot be replenished and their opportunity cost includes the cost of substitutes when they are exhausted;
 - External costs: the external effects may include significant costs that can or cannot be measured .

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of Economic Costs and Benefits

- **Basic Principles and Concepts of Prices:**
 - Use of common criteria for valuation: financial prices;
 - Use of constant prices
 - Shadow prices:
 - The main differences between the economic and financial values:
 - Government taxes and subsidies
 - Excess operating surplus
 - Foreign exchange premiums
 - Producer and consumer surplus
 - Positive and negative externalities

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- The economic price of the output or input is based on the weighted average of its demand and supply price. The weights depend on the relative importance of:
 - Incremental outputs and inputs
 - Non-incremental outputs and inputs
- In valuing project outputs and inputs, economic costs and benefits are divided into:
 - Traded outputs and inputs
 - Non-traded inputs and outputs



Summary of Basis of Economic Valuation of Project Outputs and Inputs

In summary: Basis Of Economic Valuation of Project Outputs and Inputs	“Incremental”	“Non-Incremental”
Outputs	Adjusted demand price or willingness to pay	Adjusted supply price or opportunity cost
Inputs	Adjusted supply price or opportunity cost	Adjusted demand price or willingness to pay



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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- **World Prices:** Trade represents an alternative to domestic production for most goods and services. Hence, outputs and inputs can be valued from the national point of view using world market prices.
- World prices will differ from domestic prices used in the financial analysis.

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- **Adjusting financial prices to world prices:**
 - Excludes all tax and subsidy elements from the project input costs
 - Ensures outputs are valued at their worth to the nation
- The valuation of outputs and inputs through world prices requires that the trade effects of each project item are identified
- The valuation of traded goods depends upon whether supply and demand are fully incremental, and therefore on the elasticity of supply and demand.

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- There are 4 main cases (of how to value inputs and outputs):
 - Incremental outputs that are exported can be valued at the export demand price
 - Output that substitute for imports can be valued at the import supply price
 - Incremental inputs that are imported can be valued at the import supply price
 - Inputs that reduce the level of exports can be valued at the export demand price

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of Economic Costs and Benefits

- Adjusting border prices:
 - The project's effects on traded goods and services can be directly measured through their border price equivalent value (BPEV). BPEV is the the world price for the traded product for the country adjusted to the project location. Adjusting goods at their BPEVs adjusts for the effects of various factors.
 - Border prices for exported outputs have to be adjusted to the project location, by subtracting costs of transport, distribution, handling, and processing.
 - Border prices for imported inputs have to be adjusted by adding such costs to the point of the project site.

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- The demand price for an exported output is its FOB price (FOB: free on board, the seller delivers goods loaded on the ship at the nominated port and the buyer bears all costs from that point onward)
- CiF – Cost, insurance, freight – the seller delivers goods with transport costs and insurance covered up to the nominated point of delivery



**A) Valuation of economic costs and benefits: Getting the Prices Right.
Summary for Valuing main project outputs and inputs**

Adjusting Prices with World Prices...	Category	Project Impact	Basis Of Econ. Price	Basis of Valuation
Output	Tradable	Incremental	Demand Price	WMP=FOB
	Non-Tradable	Non-Incremental Incremental Non-Incremental	Supply Price Demand Price Supply price	WMP=CIF DMP+CT DMP-PT-OS
Input	Tradable	Incremental	Supply price	WMP=CIF
	Non-Tradable	Non-Incremental Incremental Non	Demand price Supply price Demand price	WMP=FOB DMP-PT-OS DMP+CT



ECONOMIC ANALYSIS OF PROJECTS

Valuation of Economic Costs and Benefits

- Legend for Table (the previous slide)
 - CIF - Cost insurance freight
 - CT - Net consumption tax
 - DMP - Domestic market price
 - FOB - Free on board
 - OS – Operating surplus
 - PT - Net production tax
 - WMP - World market price

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of Economic Costs and Benefits

- Conversion Factor: When the border price economic value is adjusted for project location, it can be compared with the financial price (resulting in a conversion factor)
 - $CF = \frac{BPEV}{FP}$
 - CF=conversion factor
 - BPEV=border price economic value
 - FP=Financial price
 - If the CF is less than 1, this reflects a protected output and input. If CF is greater than 1, occurs when export items are heavily taxed.

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- Economic Pricing of Non-traded Goods and Services:
 - Goods & services may be non-traded for different reasons: (ex., public utilities, social sector, env. Projects all produce effects which are non-traded);
 - Non-traded output and input, sold on the domestic market, are also valued at economic prices;
 - Since demand for non-traded goods is from within the domestic economy only, a project may have significant impact on the average cost of production and the supply and demand prices.

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A) Valuation of economic costs and benefits: Getting the Prices Right

6. Economic Price of Labor

- (a) Basic principle: value labor is to estimate the opportunity cost to the economy when labor migrates between places or jobs to join the project, plus additional costs associated with the migration
- (b) Two basic categories: scarce & surplus
- (c) Scarce labor –
- (d) Surplus labor
- (e) Shadow wage rate factor: it is ratio between its economic and financial prices. $SWRF = \frac{OC + \text{other econ. Costs}}{\text{wage rate}}$

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A) Valuation of economic costs and benefits: Getting the Prices Right

7. Economic Price of Land

- (a) Opportunity cost of land- Value of land is best determined through its opportunity cost. The opportunity cost of land is equal to what it would have produced without the project
- (b) Resettlement cost – The economic costs of resettlement must also be included in the cost of land, if not already included in the project cost.

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A) Valuation of economic costs and benefits: Getting the Prices Right

8. Bringing economic prices to a common base:

- (a) Items valued at BPEV: Traded goods and services, the opportunity cost of surplus labor, the opportunity cost of land and non-traded goods with increasing supply are all valued at the BPEV.
- (b) Non-traded outputs, the opportunity cost of scare labor, non-traded products in fixed supply will all be initially valued at domestic market prices (DMP)
- (c) These two forms of valuation, BPEV and DMP, need to be brought to a common base so that they can be aggregated and compared

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A) Valuation of economic costs and benefits: Getting the Prices Right

(d) Shadow exchange rate is the weighted average of imports and exports in domestic prices to the border price equivalent value of the same goods. The shadow exchange rate is estimated by comparing the demand for, and supply of, foreign exchange for trade purposes

- The shadow exchange rate factor (SERF) is calculated as the ratio of the shadow exchange rate to the official exchange rate (generally, will be greater than 1)

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A) Valuation of economic costs and benefits: Getting the Prices Right

- (e) Domestic Price numeraire – The method of adjusting border prices equivalent values to the equivalent values to the equivalent domestic price level (that is, applying the SERF to the border price equivalent value of all traded outputs and inputs).
- (f) World price numeraire. Alternatively, apply the standard conversion factor (SCF), which is the inverse of the SERF. For economic analysis using the world price numeraire, the SCF is applied to all project items valued at their domestic market price values to convert them to a border price equivalent, while items valued at their border price equivalent value are kept the same. The SCF is applied to non-traded goods.

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A) Valuation of economic costs and benefits: Getting the Prices Right

9. Conversion Factors: there can be 3 types of conversion factors to make needed price adjustments (usually non-traded goods).

- For specific project items (main outputs and inputs, which are non-traded)
- For groups of typical items (grains, construction)
- For the economy as a whole (as in the SERF, or SCF)

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A) Valuation of economic costs and benefits: Getting the Prices Right

(a) Shadow prices" may be used in estimating the WTP and the WTA values when there are market distortions due to:

- Government intervention
- Macroeconomic policies
- Imperfect competition

(b) Shadow prices take into account the major impacts of project where economic values differ from financial prices. The key parameters which often require price adjustments refer to foreign exchange rates, labor wage rates (especially unskilled), and a "standard conversion factor" which often is applied to other key input and output financial prices (rather than having to estimate specific conversion factors) (economic price/financial price= conversion factor). (more on this subject later).

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A) Valuation of economic costs and benefits: Getting the Prices Right

10. Summary of economic price adjustments: 10 Step Procedure.....

- (a) Choose the numeraire to be used
- (b) Estimate the SERF or SCF
- (c) Revalue the main outputs and inputs having a trade effect at BPEVv. Use the SERF/SCF estimate to bring traded/non-traded items to a common basis
- (d) Obtain willingness to pay or other valuation for non-traded outputs
- (e) Identify any non-traded inputs that are crucial to the project and for which financial prices incorporate a significant tax, or more likely, subsidy element. Estimate a specific conversion factor for each item.

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A) Valuation of economic costs and benefits: Getting the Prices Right

(f) Estimate a SWRF (shadow wage rate factor) for project labor

(g) Estimate the economic value of land using the SERF or SCF, depending on the numeraire used.

(h) Calculate the NPV and IRR

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

1. Key Principles:

- Environmental sustainability is a key element in the project's overall sustainability. Environmental effects should be valued and included in the economic analysis of projects
- Monetary values can be placed on all types of environmental effects to determine the "tradeoffs" of development and environment.

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

2. There are 4 broad approaches to value environmental costs and benefits.

- (a) Market prices- use this when environmental damage leads to losses in productivity or adverse health effects, market prices are used. But they rely only on income losses, at the more structural level (e.g., damage due to soil erosion, deforestation, and pollution)

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

- (b) Costs of replacement – respond to environmental damage by making expenditures to avert damage, or pay for damage already done. (losses of soil fertility can result from the erosion, or polluted water supplies requires buying water from vendors)
- (c) Surrogate markets – environmental degradation be valued though effect on other markets (especially property values/labor) (jobs with env risks have higher risk premium)

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

- (d) Surveys – People can be directly questioned to find what value they place on environmental change or natural resources, the amenity value to historical landmarks, or willingness to pay for better access to clean water and improved sanitation
- (e) Market-based control mechanisms- they directly alter incentives through the price mechanism, and generate positive effects:
 - Help reduce environmentally damaging subsidies
 - Increase environmentally improving taxation

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

(f) All environmental effects have to be:

- Valued at economic prices
- Expressed using the same numeraire as other project effects (ref. above discussion)

Exercise: Shadow Wage Rate and Shadow Wage Rate Factor for Unskilled Labor in a Government Rural Project

1. Consider the case of a government corporation that is undertaking a labor-intensive sugar plantation and processing project in a rural area. The project requires unskilled workers on a temporary basis and pays a gross-of-tax wage (in Rupees) that varies by the month. This amount will be subject to a 5 percent income tax. Table 1 shows - in column (3) - the after-tax monthly wage rate for landless labor working in several alternative formal sector activities in the area where the project is proposed to be established, and, in column (4), the proposed project's monthly requirements for person-months.

2. To estimate the economic cost of the unskilled labor to the project, we first need to calculate the monthly share of the annual person-months required by the project. This requires information on wages, taxes, person-months employed during each month of the year; this information is provided in Table 1, Columns 1 – 4. The monthly share of annual person-months is calculated by dividing the number of person-months for a particular month by the total yearly person-months, and is shown in Column 5.

Table 1. Shadow Wage Rate for Unskilled Labor

Month	Wage to Employee Before Tax (Rupees)	Wage to Employee After Tax (Rupees)	Person-Months	Monthly Share of Annual Person-months
(1)	(2)	(3)	(4)	(5)
January	126.3	120	1,800	0.18
February	105.3	100	1,800	0.18
March	189.5	180	1,800	0.18
April	189.5	180	900	0.09
May	105.3	100	900	0.09
June	157.9	150	0	0.0
July	189.5	180	0	0.0
August	126.3	120	0	0.0
September	157.9	150	900	0.09
October	115.8	110	0	0.09
November	157.9	150	900	0.09
December	189.5	180	900	0.09
Total			9,900	1.00

Task 1:

Using the information given in Table 1 :

- a) Calculate the weighted average monthly wage for casual labor before and after tax..
- b) Calculate the shadow wage rate (SWR).

Solution

Task 2:

The shadow wage rate factor (SWRF) for a certain type of labor is the ratio between its shadow wage rate and its price. If project labor is paid a wage of 200 rupees per month, calculate the SWRF in domestic prices.

Solution

3. Where the world price numeraire is being used, this SWRF has to be revalued again using a standard conversion factor or a specific conversion factor for the output of this type of casual labor.

Task 3:

- a) If it is assumed that the labor to be employed by the project produces a number of different types of output (e.g., cement, tires, bananas, vegetables) and the standard conversion factor for the economy as a whole is estimated to be 0.85, what is the estimated value of the SWR at the world price numeraire?

- b) If all project labor was drawn from an area currently producing only cement, whose specific conversion factor was estimated to be 0.8, what would be the value of the SWR at the world price numeraire?

Solution

Exercise: Solution**Shadow Wage Rate and Shadow Wage Rate Factor for Unskilled Labor in a Government Rural Project**

(Refer to Section VII.E and Appendix 12 of the *Guidelines for the Economic Analysis of Projects*, 1997 as a complement to the solution set.)

Task 1: (a and b)

Weighted average monthly wage rate for casual labor before tax

$$\begin{aligned}
 &= \text{sum of wage to employee before tax multiplied by monthly share of annual person months} \\
 &= (126.3 \times 0.18) + (105.3 \times 0.18) + (189.5 \times 0.18) + (189.5 \times 0.09) + (105.3 \times 0.09) + (157.9 \times 0) + \\
 &\quad (189.5 \times 0) + (126.3 \times 0) + (157.9 \times 0.09) + (115.8 \times 0) + (157.9 \times 0.09) + (189.5 \times 0.09) \\
 &= 149.3
 \end{aligned}$$

Weighted average monthly wage rate for casual labor after tax

$$\begin{aligned}
 &= \text{sum of wage to employee after tax multiplied by monthly share of annual person months} \\
 &= (120 \times 0.18) + (100 \times 0.18) + (180 \times 0.18) + (180 \times 0.09) + (100 \times 0.09) + (150 \times 0) + \\
 &\quad (180 \times 0) + (120 \times 0) + (150 \times 0.09) + (110 \times 0) + (150 \times 0.09) + (180 \times 0.09) \\
 &= 141.8
 \end{aligned}$$

Shadow wage rate

$$\begin{aligned}
 &= (\text{weighted average monthly wage before tax} + \text{weighted average monthly wage after tax}) / 2 \\
 &= (149.3 + 141.8) / 2 \\
 &= 145.6
 \end{aligned}$$

Table 1: Shadow Wage Rate for Unskilled Labor

Month	Wage to Employee Before Tax	Wage to Employee After Tax	Person-Months	Monthly Share of Annual Person-Months	Weighted Average Monthly Wage		Shadow Wage Rate
					Before Tax	After Tax	
1	2	3	4	5	6	7	8
January	126.3	120	1800	0.18	23.0	21.8	
February	105.3	100	1800	0.18	19.1	18.2	
March	189.5	180	1800	0.18	34.5	32.7	
April	189.5	180	900	0.09	17.2	16.4	
May	105.3	100	900	0.09	9.6	9.1	
June	157.9	150	0	0.00	0.0	0.0	
July	189.5	180	0	0.00	0.0	0.0	
August	126.3	120	0	0.00	0.0	0.0	
September	157.9	150	900	0.09	14.4	13.6	
October	115.8	110	0	0.00	0.0	0.0	
November	157.9	150	900	0.09	14.4	13.6	

r							
December	189.5	180	900	0.09	17.2	16.4	
Total/year			9900.0	1.00	149.3	141.8	145.6

Note that the SWR is calculated as an average of before- and after-tax incomes, as the wage inclusive of tax represents the value foregone by the employer while the wage net of tax represents the value received by labor.

Task 2:

Shadow wage rate factor in domestic prices

$$= \text{Shadow wage rate} / \text{price of labor}$$

$$= 145.6 / 200 \text{ rupees per month}$$

$$= 0.728$$

Task 3:

- a. The shadow wage rate at world numeraire prices where a mixture of outputs was being produced by labor to be employed by the project and the economy-wide SCF was 0.85 would be

$$\text{SWR} * \text{SCF (i.e., standard conversion factor)}$$

$$= 145.6 \text{ rupees per month} * 0.85$$

$$= 123.76 \text{ rupees per month}$$

- b. Where labor to be employed was presently producing a product (e.g., cement) whose specific conversion factor was estimated at 0.8, the SWR in economic prices at the world numeraire would be

$$\text{SWR} * \text{specific conversion factor}$$

$$= 146.5 \text{ rupees per month} * 0.8$$

$$= 116.48 \text{ rupees per month}$$



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Identification and Quantification of Costs and Benefits

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ECONOMIC ANALYSIS OF PROJECTS

Identification and Quantification of Costs and Benefits

- **Costs (cont.):**
 - Depreciation: the economic cost flow already includes real initial investment and replacement/maintenance investments;
 - Depletion premium: nonrenewable natural resources cannot be replenished and their opportunity cost includes the cost of substitutes when they are exhausted;
 - External costs: the external effects may include significant costs that can or cannot be measured .

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of Economic Costs and Benefits

- **Basic Principles and Concepts of Prices:**
 - Use of common criteria for valuation: financial prices;
 - Use of constant prices
 - Shadow prices:
 - The main differences between the economic and financial values:
 - Government taxes and subsidies
 - Excess operating surplus
 - Foreign exchange premiums
 - Producer and consumer surplus
 - Positive and negative externalities

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- The economic price of the output or input is based on the weighted average of its demand and supply price. The weights depend on the relative importance of:
 - Incremental outputs and inputs
 - Non-incremental outputs and inputs
- In valuing project outputs and inputs, economic costs and benefits are divided into:
 - Traded outputs and inputs
 - Non-traded inputs and outputs



Summary of Basis of Economic Valuation of Project Outputs and Inputs

In summary: Basis Of Economic Valuation of Project Outputs and Inputs	“Incremental”	“Non-Incremental”
Outputs	Adjusted demand price or willingness to pay	Adjusted supply price or opportunity cost
Inputs	Adjusted supply price or opportunity cost	Adjusted demand price or willingness to pay



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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- **World Prices:** Trade represents an alternative to domestic production for most goods and services. Hence, outputs and inputs can be valued from the national point of view using world market prices.
- World prices will differ from domestic prices used in the financial analysis.

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- **Adjusting financial prices to world prices:**
 - Excludes all tax and subsidy elements from the project input costs
 - Ensures outputs are valued at their worth to the nation
- The valuation of outputs and inputs through world prices requires that the trade effects of each project item are identified
- The valuation of traded goods depends upon whether supply and demand are fully incremental, and therefore on the elasticity of supply and demand.

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- There are 4 main cases (of how to value inputs and outputs):
 - Incremental outputs that are exported can be valued at the export demand price
 - Outputs that substitute for imports can be valued at the import supply price
 - Incremental inputs that are imported can be valued at the import supply price
 - Inputs that reduce the level of exports can be valued at the export demand price

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of Economic Costs and Benefits

- **Adjusting border prices:**
 - The project's effects on traded goods and services can be directly measured through their border price equivalent value (BPEV). BPEV is the world price for the traded product for the country adjusted to the project location. Adjusting goods at their BPEVs adjusts for the effects of various factors.
 - Border prices for exported outputs have to be adjusted to the project location, by subtracting costs of transport, distribution, handling, and processing.
 - Border prices for imported inputs have to be adjusted by adding such costs to the point of the project site.

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- The demand price for an exported output is its FOB price (FOB: free on board, the seller delivers goods loaded on the ship at the nominated port and the buyer bears all costs from that point onward)
- CiF – Cost, insurance, freight – the seller delivers goods with transport costs and insurance covered up to the nominated point of delivery



**A) Valuation of economic costs and benefits: Getting the Prices Right.
Summary for Valuing main project outputs and inputs**

Adjusting Prices with World Prices...	Category	Project Impact	Basis Of Econ. Price	Basis of Valuation
Output	Tradable	Incremental	Demand price	WMP=FOB
	Non-Tradable	Non-Incremental Incremental Non-Incremental	Supply price Demand price Supply price	WMP=CIF DMP+CT DMP-PT-OS
Input	Tradable	Incremental	Supply price	WMP=CIF
	Non-Tradable	Non-Incremental Incremental Non	Demand price Supply price Demand price	WMP=FOB DMP-PT-OS DMP+CT



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ECONOMIC ANALYSIS OF PROJECTS

Valuation of Economic Costs and Benefits

- Legend for Table (the previous slide)
 - CIF - Cost insurance freight
 - CT - Net consumption tax
 - DMP - Domestic market price
 - FOB - Free on board
 - OS – Operating surplus
 - PT - Net production tax
 - WMP - World market price

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Valuation of Economic Costs and Benefits

- Conversion Factor: When the border price economic value is adjusted for project location, it can be compared with the financial price (resulting in a conversion factor)
 - $CF = \frac{BPEV}{FP}$
 - CF=conversion factor
 - BPEV=border price economic value
 - FP=Financial price
 - If the CF is less than 1, this reflects a protected output and input. If CF is greater than 1, occurs when export items are heavily taxed.

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ECONOMIC ANALYSIS OF PROJECTS

Valuation of economic costs and benefits

- Economic Pricing of Non-traded Goods and Services:
 - Goods & services may be non-traded for different reasons: (ex., public utilities, social sector, env. Projects all produce effects which are non-traded);
 - Non-traded output and input, sold on the domestic market, are also valued at economic prices;
 - Since demand for non-traded goods is from within the domestic economy only, a project may have significant impact on the average cost of production and the supply and demand prices.

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A) Valuation of economic costs and benefits: Getting the Prices Right

6. Economic Price of Labor

- (a) Basic principle: value labor is to estimate the opportunity cost to the economy when labor migrates between places or jobs to join the project, plus additional costs associated with the migration
- (b) Two basic categories: scarce & surplus
- (c) Scarce labor –
- (d) Surplus labor
- (e) Shadow wage rate factor: it is ratio between its economic and financial prices. $SWRF = \frac{OC + \text{other econ. Costs}}{\text{wage rate}}$

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A) Valuation of economic costs and benefits: Getting the Prices Right

7. Economic Price of Land

- (a) Opportunity cost of land- Value of land is best determined through its opportunity cost. The opportunity cost of land is equal to what it would have produced without the project
- (b) Resettlement cost – The economic costs of resettlement must also be included in the cost of land, if not already included in the project cost.

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A) Valuation of economic costs and benefits: Getting the Prices Right

8. Bringing economic prices to a common base:

- (a) Items valued at BPEV: Traded goods and services, the opportunity cost of surplus labor, the opportunity cost of land and non-traded goods with increasing supply are all valued at the BPEV.
- (b) Non-traded outputs, the opportunity cost of scare labor, non-traded products in fixed supply will all be initially valued at domestic market prices (DMP)
- (c) These two forms of valuation, BPEV and DMP, need to be brought to a common base so that they can be aggregated and compared

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A) Valuation of economic costs and benefits: Getting the Prices Right

(d) Shadow exchange rate is the weighted average of imports and exports in domestic prices to the border price equivalent value of the same goods. The shadow exchange rate is estimated by comparing the demand for, and supply of, foreign exchange for trade purposes

- The shadow exchange rate factor (SERF) is calculated as the ratio of the shadow exchange rate to the official exchange rate (generally, will be greater than 1)

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A) Valuation of economic costs and benefits: Getting the Prices Right

- (e) Domestic Price numeraire – The method of adjusting border prices equivalent values to the equivalent values to the equivalent domestic price level (that is, applying the SERF to the border price equivalent value of all traded outputs and inputs).
- (f) World price numeraire. Alternatively, apply the standard conversion factor (SCF), which is the inverse of the SERF. For economic analysis using the world price numeraire, the SCF is applied to all project items valued at their domestic market price values to convert them to a border price equivalent, while items valued at their border price equivalent value are kept the same. The SCF is applied to non-traded goods.

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A) Valuation of economic costs and benefits: Getting the Prices Right

9. Conversion Factors: there can be 3 types of conversion factors to make needed price adjustments (usually non-traded goods).
- For specific project items (main outputs and inputs, which are non-traded)
 - For groups of typical items (grains, construction)
 - For the economy as a whole (as in the SERF, or SCF)

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A) Valuation of economic costs and benefits: Getting the Prices Right

- (a) Shadow prices" may be used in estimating the WTP and the WTA values when there are market distortions due to:
- Government intervention
 - Macroeconomic policies
 - Imperfect competition
- (b) Shadow prices take into account the major impacts of project where economic values differ from financial prices. The key parameters which often require price adjustments refer to foreign exchange rates, labor wage rates (especially unskilled), and a "standard conversion factor" which often is applied to other key input and output financial prices (rather than having to estimate specific conversion factors) (economic price/financial price= conversion factor). (more on this subject later).

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A) Valuation of economic costs and benefits: Getting the Prices Right

10. Summary of economic price adjustments: 10 Step Procedure.....

- (a) Choose the numeraire to be used
- (b) Estimate the SERF or SCF
- (c) Revalue the main outputs and inputs having a trade effect at BPEVv. Use the SERF/SCF estimate to bring traded/non-traded items to a common basis
- (d) Obtain willingness to pay or other valuation for non-traded outputs
- (e) Identify any non-traded inputs that are crucial to the project and for which financial prices incorporate a significant tax, or more likely, subsidy element. Estimate a specific conversion factor for each item.

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A) Valuation of economic costs and benefits: Getting the Prices Right

- (f) Estimate a SWRF (shadow wage rate factor) for project labor
- (g) Estimate the economic value of land using the SERF or SCF, depending on the numeraire used.
- (h) Calculate the NPV and IRR

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

1. Key Principles:

- Environmental sustainability is a key element in the project's overall sustainability. Environmental effects should be valued and included in the economic analysis of projects
- Monetary values can be placed on all types of environmental effects to determine the "tradeoffs" of development and environment.

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

2. There are 4 broad approaches to value environmental costs and benefits.

- (a) Market prices- use this when environmental damage leads to losses in productivity or adverse health effects, market prices are used. But they rely only on income losses, at the more structural level (e.g., damage due to soil erosion, deforestation, and pollution)

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

- (b) Costs of replacement – respond to environmental damage by making expenditures to avert damage, or pay for damage already done. (losses of soil fertility can result from the erosion, or polluted water supplies requires buying water from vendors)
- (c) Surrogate markets – environmental degradation be valued though effect on other markets (especially property values/labor) (jobs with env risks have higher risk premium)

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

- (d) Surveys – People can be directly questioned to find what value they place on environmental change or natural resources, the amenity value to historical landmarks, or willingness to pay for better access to clean water and improved sanitation
- (e) Market-based control mechanisms- they directly alter incentives through the price mechanism, and generate positive effects:
 - Help reduce environmentally damaging subsidies
 - Increase environmentally improving taxation

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B) ASSESSING ENVIRONMENTAL SUSTAINABILITY

(f) All environmental effects have to be:

- Valued at economic prices
- Expressed using the same numeraire as other project effects (ref. above discussion)



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PUBLIC INVESTMENT POLICY PROJECT

TRAINING WORKSHOP FOR TECHNICAL STAFF

**IMPROVED PUBLIC INVESTMENT POLICY,
INTEGRATED PROJECT ANALYSIS IN THE
PROJECT CYCLE:**

**FROM KEY CONCEPTS TO PRACTICE –
("Project Analysis: Key Concepts and Tools")**



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LEARNING OUTCOME OBJECTIVES

- An enhanced operational understanding and approach to carrying out the distributional analysis of project analysis
- An improved operational understanding of key concepts and tools for carrying out the poverty assessment of projects (with strong linkage to the SPPRED framework, strategies, and emerging results)



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A) Distribution of Project Benefits: Key Concepts and Tools

1. Key concepts/considerations

(a) Project approval, implementation and especially sustainability is strongly affected by:

- Who benefits, and by how much
- Relative to
- Who pays

For example, in lending to the private sector the distribution of project benefits among Government, consumers, private investors is a key factor in:

- Negotiating "Build-Own-Operate-Transfer (BOOT) agreements
- Pricing services
- Recovering costs
- The economic return to the national economy

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A) Distribution of Project Benefits: Key Concepts and Tools

(b) During project preparation and appraisal (and in the M&E indicators), it is important to:

- The identity of the main stakeholder groups that gain or lose as a result of the project
- The estimated size (or relative magnitudes) of the gains and losses in the distribution of project effects

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A) Distribution of Project Benefits: Key Concepts and Tools

2. The identity of the main groups that gain or lose from a project include:
 - The owners of project operating entity
 - Those working in the project (PIU)
 - The Government
 - The consumers of project "outputs"
 - Those providing material inputs to the project (or suppliers)
 - Lenders to the project
 - Other(s)?????

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A) Distribution of Project Benefits: Key Concepts and Tools

3. **The size of the gains and losses in the distribution of project effects**
 - (a) The second step is to analyze and document the distribution of the economic benefits and costs, over and above financial benefits and costs
 - (b) The differences between financial and economic costs and benefits should be allocated to the project stakeholders and participants
 - (c) Distribution analysis will identify which groups benefit and who pays the cost
 - (d) Distribution analysis can look at the same project from 3 different perspectives

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A) Distribution of Project Benefits: Key Concepts and Tools

4. Distribution analysis – Perspective 1

- Distribution analysis can show the extent to which public pricing policy can affect the share of the private and public sectors in the net benefits of a service project
- It can also be used to test the extent to which the project design directs benefits to particular income groups

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A) Distribution of Project Benefits: Key Concepts and Tools

5. Distribution Analysis – Perspective 2

- A second form of distribution analysis considers the distribution of incremental net benefits among beneficiary groups according to their income level
- Such statements, showing the distribution of financial benefits, can be the basis of assessing the division of benefits between the poor and non-poor

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A) Distribution of Project Benefits: Key Concepts and Tools

6. Distribution Analysis – Perspective 3

- A third form of distribution analysis considers the effects of using foreign resources in production and funding
- The use of foreign financing, either equity or loans, results in:
 - An initial inflow of capital into the country
 - But an outflow in later years to service foreign debt and interest payments, and
 - The repatriation of foreign equity, capital gains and earnings

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A) Distribution of Project Benefits: Key Concepts and Tools

- Increased prices or tariffs on project outputs will increase the revenues of the foreign investor and therefore, potentially increasing the outflow of benefits from economy
- Increased prices or tariffs on project inputs (or outputs for nontradable benefits) will increase the benefits to the economy.

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PROJECT CASE STUDY TEAM EXERCISES

- 1) Exercise # 3: Distribution of Benefits
- 2) Some other questions:
 - What aspects of your project makes it important to include a sound distributional and stakeholder analysis as part of the overall project analysis?
 - What is the approach used in your case study project to assess the distribution of benefits?
 - What is your qualitative re-assessment of the distribution of incremental net benefits for your project? (consider the nature/scope of benefits, and approach taken)
 - What approach would you take to re-assess the poverty impacts of the project?

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B) Impact on Poverty Reduction

1. Key principles
 - Poverty reduction is the most formidable development challenge in most developing countries, including Azerbaijan
 - To reduce poverty some projects target the poor directly, but most aim at economic growth, benefiting the poor indirectly as well as directly.
 - This presentation will show how to trace the economic impact of “growth” projects on the poor

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B) Impact on Poverty Reduction

2. Summary of lessons from good practices (ref. book by J. Baker on Evaluating Project Poverty Impacts)
 - Early and careful planning of the evaluation design (in project preparation and design of M&E system)
 - Practical approaches to evaluation when there is no baseline
 - Dealing with constraints on developing good controls
 - Combine appropriate methods/techniques
 - Exploit existing data sources
 - Consider costs and financing aspects
 - Consider political economy issues

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B) Impact on Poverty Reduction

3. Methodology: The poverty-reducing impact of a project is traced by evaluating the expected distribution of incremental net economic benefits to different groups.

(a) The steps are as follows:

- estimate the present value of incremental net financial benefits by each participating group
- Add the difference between net benefits by group at economic and financial prices to net financial benefits by group to give the distribution of net economic benefits by group.
- Finally, the net economic benefits accrue to the poor according to the proportion of each group that is poor. A poverty impact ratio expresses the proportion of net economic benefits accruing to the poor. It can be calculated by comparing net economic benefits to the poor with net economic benefits to the project as a whole.

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B) Impact on Poverty Reduction

(b) Framework for the poverty analysis:

- For the purpose of poverty impact analysis, project beneficiaries are divided into three national groups: the poor, the nonpoor, and the government
- Net economic benefits by group are distributed between the poor and the nonpoor, according to the extent that they benefit the poor. In the case of net economic benefits to the government, it is assumed that 50 percent potentially benefit the poor.
- The present value of project capital costs is \$25 million at border prices..

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Case Study Team Exercise

- 1) Exercise #4: On Poverty Reduction (example of a water supply project) (see handout)
- 2) Some other key questions for Team Exercise:
 - What is the approach used in your case study project to assess the project's expected poverty impact? And to assess the poverty impact in the project's Monitoring & Evaluation System?
 - What approach would you take to re-assess and refine the poverty impacts of the project?

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Exercise: Distribution of Project Effects

1. The following exercise illustrates the construction of a statement on the distribution of project effects. For simplification, the project excludes the effects of project financing, that is, it does not consider the possible net costs or benefits to lenders. Neither does it include direct tax payments. The illustration concerns a telecommunications project involving 50,000 new lines and associated exchanges that will extend the national network into a rural area through the provision of publicly accessible telephones in villages and rural towns. The analysis of the distribution of project effects is based on the incremental number of calls for the telecommunications corporation and the incremental costs of providing the new telephone facilities. Values for the costs and benefits of the project, at both financial and economic prices, are all given as present values calculated at a discount rate of 12 percent (representing the economic price of investment funds in the economy).

2. The forecast project financial statement at constant domestic market prices is summarized in Table 1. At the projected future charge level, which will apply across the whole telecommunications network and not just in the project area, the telecommunications corporation will not recover the full incremental costs of the project at financial prices inclusive of the opportunity cost of capital. As shown in Table 1, the corporation will have a loss on resources in present value of 100.

Table 1. Project Net Benefits at Constant Financial Prices

	Present Values (at 12% discount rate)
Benefits	
Revenue	700
Costs	
Equipment	400
Installation	100
Operating Labor	100
Other Operating Costs	200
Total Costs	800
Net Present Value	-100

6. The economic analysis of the project introduces three major considerations. First, with-project telephone calls will be made at a cost that includes the telephone charge going to the corporation plus the costs of traveling to the telephone. Without the project, a high proportion of telephone users would continue to communicate through other means, including traveling to the call destinations. The difference between the cost of communication without the project and the full costs with the project, including the costs of reaching the telephone, represents an economic benefit to telephone users that is not incorporated in the financial charge for the telephone calls. In addition, a further economic benefit will stem from the fact that several small businesses and farmers will benefit from the better access to communication relating to input and output markets and prices, and transport schedules. Taken together, these additional economic benefits can be

added on to the financial revenues as a consumer surplus. Second, there is a difference between the economic price of foreign exchange and the official exchange rate. A SERF of 1.3 has been estimated for the country, implying that foreign exchange costs have a higher economic than financial cost to the economy. Third, there is a surplus of labor that could easily be trained for telecommunication operations in the area. The opportunity cost at domestic prices for operating labor has been estimated as 90 percent of the wage level, in other words a shadow wage rate factor of 0.9.

7. The matrix for the distribution analysis is presented in Table 2. Financial benefits consist of revenue from the phone operations; the economic benefits include this revenue (reflected in economic prices) plus the consumer surplus, or the difference between the charges and consumers willingness-to-pay. Costs have been apportioned on the basis of equipment, installation costs, operating labor costs and other operating costs. The cost estimates are reflected in financial prices and converted to economic values using the appropriate conversion factors shown in Column 3 of Table 2 and discussed in the paragraph above. Economic values have been expressed at the domestic price level in national currency. Table 2 also shows the differences between the financial and economic value of resources. These differences give rise to losses and gains among the project participants.

Task:

Using the information in the preceding paragraphs and presented in Table 2:

- a) Calculate the net benefits for financial present values, economic present values and the difference in economic and financial values, and explain the reasons for these results;
- b) Distribute the project effects as they accrue to the corporation, government/economy, labor and consumers and explain the distribution;
- c) Calculate the gains and losses to project stakeholders – corporation, government/economy, labor and consumers;
- d) Rank the gainers and losers for the project and make some observations on the scope for an alternative project design; and
- e) Complete Table 2

Solution

**Table 2. Distribution of Net Economic Benefits
(Present Values at 12% Discount Rate)**

				Difference	Distribution of Project Effects			
(1)	Financial Present Values (2)	Conversion Factor (3)	Economic Present Values (4)	Economic minus Financial (5)	Corporation (6)	Government/Economy (7)	Labor (8)	Consumers (9)
Benefits								
Revenue	700	1.00	700					
Consumer Surplus		1.00	250					
Total Benefits	700		950					
Costs								
Equipment	400	1.30	520					
Installation	100	1.00	100					
Operating	100	0.90	90					
Labor	200	1.00	200					
Other Operating Costs								
Total Costs	800		910					
Net Benefits								
Gains and Losses								

Exercise: Solution
Distribution of Project Effects

(Refer to Appendix 25 of the *Guidelines for the Economic Analysis of Projects*, 1997 as a complement to the solution set..)

- a. Net benefit for financial present values (See Table 1)
= total financial benefits – total financial costs
= 700 - 800
= -100

Note that the telecommunications corporation will not recover the full incremental costs of the project, given the projected future charge level, at financial prices inclusive of the opportunity cost of capital. The corporation will incur a loss of 100 in present value terms.

Net benefit for economic present values
= total economic benefits – total economic costs
= 950 - 910
= 40

The total economic benefits of 950 comprise 700 which is equivalent to the financial revenue and 250 as consumer surplus (see Table 2). Total economic costs comprise equipment (where the financial cost is adjusted by the shadow exchange rate factor of 1.3; installation costs and other operating costs equivalent to financial costs of 100 and 200, respectively; and operating labor cost of 90 which is equivalent to the financial cost of 100 adjusted by the shadow wage rate factor of 0.9.

Difference in economic and financial values
= economic present value – financial present value (see Table 2)

BENEFITS:

Revenue
= 700 – 700
= 0

Consumer Surplus
= 250 – 0
= 250

Total Benefits
= 950 – 700
= 250

COSTS:

Equipment
= 520 – 400
= 120

$$\begin{aligned} \text{Installation} \\ &= 700 - 700 \\ &= 0 \end{aligned}$$

$$\begin{aligned} \text{Operating Labor} \\ &= 90 - 100 \\ &= -10 \end{aligned}$$

$$\begin{aligned} \text{Total Costs} \\ &= 910 - 800 \\ &= 110 \end{aligned}$$

$$\begin{aligned} \text{NET BENEFITS:} \\ &= 40 - (-100) \\ &= 140 \end{aligned}$$

The net economic benefits exceed the financial net benefits by 140.

- b. Consumer surplus are savings to consumers arising from the difference between what they are willing to pay for an output and what they will be charged for it under the project. Consumers of the new telephone service benefit to the extent to which the economic value of communication cost savings and business efficiency improvements exceed the full cost of making calls.

The cost of equipment, as a negative value, is for the account of the Government/Economy. As the difference between the economic and financial value of the equipment is due to the overvaluation of the exchange rate, the loss is borne by the Government (representing others in the economy, especially importers).

Operating labor costs accrue as a benefit to labor. Since the opportunity cost of labor is only 90 percent of its wage, labor gains the difference of 10 percent arising from distortions in the labor market.

- c. The gains and losses to project stakeholders are the sum of project effects per stakeholder. In this case, since there is only one project effect per stakeholder, the gains and losses are the same as the project effects distributed in Task b, that is, 250 for Consumers, 10 for Labor, and -120 for the Government/Economy. In addition, the Corporation loses 100 because its total financial costs exceed its total financial revenues.
- d. Ranking of gainers: (1) Consumers; (2) Labor; (3) Corporation; (4) Economy.
 Ranking of losers: (1) Economy; (2) Corporation.

While the consumers gain 250 from consumer surplus, the corporation loses 100. This indicates a possible change in project design where part of the consumer surplus could be incorporated into telephone charges. If the telephone charge is raised to cover the financial loss of 100, that is by $100/700$ or 14.3 percent on a project basis, most consumers would still be making substantial gains. However, raising telephone charges may prevent marginal

consumers from using the telephone, thereby reducing economic benefits to some extent as well.

The distribution of project effects not only indicates possible changes in project design, but also draws attention to possibly desirable changes in exchange rate policy. In this project, Government/Economy loses 120 mainly because the economic value of the equipment exceeds its financial value to the extent of the shadow exchange rate factor.

e. Table 2 can be completed as follows:

**Table 2. Distribution of Net Economic Benefits
(Present Values at 12% Discount Rate)**

				Difference	Distribution of Project Effects			
	Financial Present Values	Conversion Factor	Economic Present Values	Economic minus Financial	Corporation	Government/Economy	Labor	Consumers
Benefits								
Revenue	700	1.00	700	0				
Consumer Surplus		1.00	250	250				+ 250
Total Benefits	700		950	250				
Costs								
Equipment	400	1.30	520	120		- 120		
Installation	100	1.00	100	0				
Operating Labor	100	0.90	90	- 10			+ 10	
Other Operating Costs	200	1.00	200	0				
Total Costs	800		910	110				
Net Benefits	- 100		40	140	- 100			
Gains and Losses					- 100	- 120	+ 10	+ 250

Exercise: Impact on Poverty Reduction

1. Poverty reduction is the most formidable development challenge. To reduce poverty some projects target the poor directly, but most aim at economic growth, benefiting the poor indirectly as well as directly. This exercise shows one way to trace the economic impact of growth projects on the poor.

2. The poverty-reducing impact of a project is traced by evaluating the expected distribution of net economic benefits to different groups. With financial prices determining who controls net economic benefits, the first step is to estimate the present value of net financial benefits by participating group. Next, the difference between net benefits by group at economic and financial prices is added to net financial benefits by group to give the distribution of net economic benefits by group. Finally, the net economic benefits accrue to the poor according to the proportion of each group that is poor. A poverty impact ratio expressing the proportion of net economic benefits accruing to the poor can be calculated by comparing net economic benefits to the poor with net economic benefits to the project as a whole.¹

3. This can be illustrated through a publicly funded water utility project selling piped water. The water supply project serves a small rural town. All capital equipment is imported, subject to an import tariff. Labor and electricity account for total operating & maintenance (O&M) costs. Wages are controlled by a minimum wage law, with the economic price of labor being a proportion of the minimum wage. Electricity is subject to a sales tax and a production tax. The water utility is not subject to income tax. All financial and economic values are given in constant year-of-appraisal prices and in present value terms. Tradables are valued at border prices at the domestic price level and nontradables at domestic market prices. Net financial benefits (NFB) and net economic benefits (NEB) are expressed in domestic currency (rupees).

4. For the purpose of poverty impact analysis, project beneficiaries are divided into three national groups: the poor, the nonpoor, and the government. Net economic benefits by group are distributed between the poor and the nonpoor, according to the extent that they benefit the poor. In the case of net economic benefits to the government, it is assumed that 50 percent potentially benefit the poor.

5. The present value of project capital costs is \$25 million at border prices. Import duties are 30 percent, the official exchange rate (OER) is Rs20/\$ and the SERF is 1.20. The market value of electricity is Rs300 million, including a production tax of 20 percent and a sales tax of 10 percent. Wages amount to Rs80 million and the supply price of labor is 70 percent of the average wage rate. Water sales are Rs1,000 million. The quantity of water illegally consumed is 20 percent of revenue water. The economic cost of water consumed and paid for is Rs1,500 million.

6. The NFB is equal to sales revenue of Rs1,000 million minus capital costs of Rs650 million (\$25 million multiplied by the OER of Rs20/\$ plus the import tariff of 30 percent), electricity costs of Rs330 million (the market value of electricity plus sales tax), and labor costs of Rs80 million. The NFB of the project shows a loss of Rs60 million in present value (see Table 1).

¹ The poverty impact ratio is based on the distribution of project net benefits. This differs from the Bank's project classification criterion, that is expressed in terms of the number of beneficiaries.

7. The NEB of the project expressed at the domestic price level is Rs894 million. It is equal to gross benefits of Rs1,800 million (the cost of water increased by the proportion of water consumed but not paid for) minus capital costs of Rs600 million (capital imports converted to local currency at the OER multiplied by the shadow exchange rate factor), electricity costs of Rs250 million (market value of electricity less production tax), and labor costs of Rs56 million (wages valued at the supply price of labor). The difference between the NEB and the NFB is distributed by group.

Table 1. Poverty Impact Ratio for Water Supply Project
(PVs at 12%)

A. Distribution of Project Effects	Financial Returns	Economic Returns	Difference	Consumers	Government / Economy	Labor
Output	1,000	1,800				
Capital costs	650	600				
Electricity	330	250				
Labor	80	56				
Total	- 60	894				
B. Poverty Impact Ratio	Consumers		Government/ Economy	Labor		Total
Beneficiaries NEB-NFB						
Financial return						
Benefits						
Proportion of poor Benefits to poor	0.25		0.50	0.333		
Poverty Impact Ratio:						

Task 1:

Using the information given in paragraphs 1 – 7 and Table 1:

- a) Calculate the difference between the net economic benefit (NEB) and net financial benefit (NFB). Distribute among stakeholders and explain the distribution;
- b) Identify NFB and distribute by group. Explain the distribution;
- c) Calculate total benefits by group.
- d) Enter the information into part A and upper portion of B in Table 1.

Solution

8. The final step is to distribute the NEB by group between the poor and the nonpoor. Twenty five (25) percent of net economic benefits accruing to consumers will accrue to consumers classified as being poor, thirty three (33) percent of net economic benefits accruing to labor will accrue to

laborers living below the poverty line and fifty (50) percent of net economic benefits accruing to the government will benefit the poor.

Task 2:

Using the information in Table 1 and paragraph 9 :

- a) Calculate the benefits accruing to the poor by distribution group – consumers, government/economy, labor;
- b) Calculate total benefits accruing to the poor;
- c) Calculate the Poverty Impact Ratio;
- d) Enter the calculations in part B of Table 1.
- e) Interpret the Poverty Impact Ratio.

Solution

Exercise: Solution
Impact on Poverty Reduction

(Refer to Appendix 26 of the *Guidelines for the Economic Analysis of Projects*, 1997 as a complement to the solution set.)

Task 1

- a. Difference between the net economic benefit (NEB) and net financial benefit (NFB) by distribution group and in aggregate:

$$\begin{aligned} \text{Output} \\ &= 1,800 - 1,000 \\ &= 800 \end{aligned}$$

Rs800 million is for the account of Consumers. This represents consumer surplus arising from the difference between the without-project cost of water and the with-project expenditure on piped water (Rs500 million), plus the value of water consumed but not paid for (Rs300 million).

$$\begin{aligned} \text{Capital Costs} \\ &= 600 - 650 \\ &= -50 \end{aligned}$$

Rs50 million is for the account of the Government/Economy, arising from the difference between government tax revenues from capital imports of Rs150 million and loss in the economy to government of Rs100 million through overvaluation of the exchange rate.

$$\begin{aligned} \text{Electricity} \\ &= 250 - 330 \\ &= -80 \end{aligned}$$

Rs80 million goes to the Government, coming from government tax revenue from electricity production (production tax of Rs50 million plus sales tax of Rs30 million).

$$\begin{aligned} \text{Labor} \\ &= 56 - 80 \\ &= -24 \end{aligned}$$

Labor earns Rs24 million more than they would have without the project.

$$\begin{aligned} \text{Total} \\ &= 894 - (-60) \\ &= 954 \end{aligned}$$

This is apportioned to Consumers (Rs800 million), Government/Economy (Rs130 million), and Labor (Rs24 million).

- b. The NFB is –Rs 60 million which is for the account of the Economy.

- c. Total benefits
= (NEB – NFB) – Financial return

Consumers = $800 + 0 = 800$
 Government/Economy = $130 + (-60) = 70$
 Labor = $24 + 0 = 24$
 Total = $954 + (-60) = 894$

d. See Part A and upper portion of Table 1.

**Table 1. Poverty Impact Ratio for Water Supply Project
(PVs at 12%)**

A. Distribution of Project Effects	Financial Returns	Economic Returns	Difference	Consumers	Government / Economy	Labor
Output	1,000	1,800	800	800		
Capital costs	650	600	50		150-100	
Electricity	330	250	80		80	
Labor	80	56	24			24
Total	- 60	894	954	800	130	24
B. Poverty Impact Ratio	Consumers		Government/Economy	Labor		Total
Beneficiaries						
NEB-NFB	800		130	24		954
Financial return			-60			-60
Benefits	800		70	24		894
Proportion of poor Benefits to poor	0.25		0.50	0.333		
Poverty Impact Ratio:						

Task 2

a. Benefits accruing to the poor by distribution group
 = Benefits by group x proportion of poor

Consumers
 = 800×0.25
 = 200

Government/Economy
 = 70×0.50
 = 35

Labor
 = 24×0.333
 = 8

- b. Total benefits accruing to the poor
 = sum of benefits to Consumers, Government/Economy, and Labor
 = 200 + 35 + 8
 = 243
- c. Poverty Impact Ratio
 = Total benefits accruing to the poor / total benefits
 = 243 / 894
 = 0.271 or 27 percent
- d. See Table 1.

**Table 1. Poverty Impact Ratio for Water Supply Project
 (PVs at 12%)**

A. Distribution of Project Effects	Financial Returns	Economic Returns	Difference	Consumers	Government / Economy	Labor
Output	1,000	1,800	800	800		
Capital costs	650	600	50		150-100	
Electricity	330	250	80		80	
Labor	80	56	24			24
Total	- 60	894	954	800	130	24
B. Poverty Impact Ratio	Consumers		Government/ Economy	Labor		Total
Beneficiaries						
NEB-NFB	800		130	24		954
Financial return			-60			-60
Benefits	800		70	24		894
Proportion of poor	0.25		0.50	0.333		
Benefits to poor	200		35	8		243
Poverty Impact Ratio: $243 / 894 = 0.271$ or 27 percent						

- d. The Poverty Impact Ratio indicates that 27 percent of total benefits accrue to the poor.



PIP Training Workshop
Final Test/Exercise
Workshop Training Follow-Up Action Plan

Key Questions	Responses
<p>1. Propose 2 Tasks within your work responsibilities for which you plan to apply relevant concepts and tools you learned during the training workshop (10%)</p>	
<p>2. State clearly why your tasks have strategic importance for your sector/Ministry and the relevant issues which you plan to address (10%)</p>	
<p>3. Provide clear action plan showing clearly how you plan to apply the specific concepts and tools to strategic issues in your ministry over the next 6 months (50%)</p>	

<p>4. Outline clearly your outputs and intermediate outcome indicators (20%)</p>	
<p>5. What support would you require from your manager to implement your proposed action plan? (10%)</p>	

(please, be clear and concise)

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**PIP Training Workshop
Summary Evaluations of Participants (November 2006)**

Sector Team/Name	Class Participation (25%)		Mid-Training Test (25%)		Case-Study Team Presentation (25%)		Final Exam (25%)		Final Grade	GRADE
	(out of 100%)	(Weighted Percentage)	(out of 100%)	(Weighted Percentage)	(out of 100%)	(Weighted Percentage)	(out of 100%)	(Weighted Percentage)		
MOED										
Agil Asadov	85		85				80			
Zahira Mahmudova	95		81				70			
Ilkin Medjidov	85		79				90			
Xuraman Nagiyeva	95		80				86			
Ulvi Xalafov	85		75				76			
Cahandar Gadirov	95		79				77			
COM										
Ruqiyat Mamedova	90		76				90			
Aytan Nazarova	90		80				70			
MOF										
Khanlar Khanlarov	100		84				73			
Sevinj Alizade	90		80				81			
MOIE										
Vugar Alakbarov	85		78				80			
Vusal Ahmadov	80		80				70			
MOT										
Valeh Khubanov	80		83				85			
MOE										
Natiq Aliyev	80		66				64			
MOA										
Atash Nuriyev	80						95			
Matlab Mehtiyev	75		86				75			
Rasim Guliyev	90		78				88			
MOENR										
Nasib Orucov	80		69				88			
Mammadhuseyn Muslumov	100		86				86			
MOCT										
Rashad Babayev			78				86			
Nazim Abdullayev	90		71				81			
Emin Khalilov	90		65				80			
CIWE										
Rafael Mamedov	100		78				98			
Rasul Pashayev	100		79				90			
Telman Mustafayev	80						83			
MOH										
Yashar Aliyev	70		65				60			
Solmaz Imanova	70		65				65			



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PUBLIC INVESTMENT POLICY PROJECT

IMPORTANCE OF A MACROECONOMIC AND
SECTORAL FRAMEWORK FOR PUBLIC INVESTMENT
POLICY AND PROGRAM (PIPP)

NOVEMBER 2005

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IMPORTANCE OF A MACROECONOMIC AND SECTORAL FRAMEWORK FOR PUBLIC INVESTMENT POLICY AND PROGRAM (PIPP)

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ABBREVIATIONS

CGC	Caspian Group Consulting
COM	Cabinet of Ministers
EBRD	European Bank of Reconstruction and Development
GOAZ	Government of Azerbaijan
IMF	International Monetary Fund
LOI	Letter of Intention
M&E	Monitoring and Evaluation
MOED	Ministry of Economic Development
MOF	Ministry of Finance
MOIE	Ministry of Industry and Energy
MPF	Macroeconomic Policy and Forecasting Department at MOED
MTEF	Medium-term Expenditure Framework
NBA	National Bank of Azerbaijan
PCU	Project Coordination Units
PIP	Public Investment Program
PIPP	Public Investment Policy Project
PIU	Project Implementation Unit
RDP	Regional Development Program (State Program for Social Development of Regions)
SDP	Sector Development Plan
SOC	State Owned Companies
SOE	State Owned Enterprises
SPPRED	State Program for Poverty Reduction and Economic Development
SSDP	Strategic Sector Development Plan
STTS	Short-Term Technical Specialists
TP	Training Plan
WB	World Bank
WP	Work Plan

Executive Summary

At present, the Government of Azerbaijan (GOAZ) does not have a systematically thought-out public investment policy and investment program. Approximately half of the State Budget's capital spending (and its composition) is determined between the MOF and line ministries and not included in the Public Investment Program. Most of the other half represents domestically funded projects in the Public Investment Program and is shown only as a line item in the budget to be distributed by sector and project after the Annual Budget Law is enacted by the Milli Mejlis. Finally, about 7-8 percent of the State Budget capital spending is included in the "extra-budgetary spending" of the budgetary organizations. The State Budget capital spending, however, makes just over 40 percent of the total public sector investment (excluding investments of both partly and fully state owned enterprises). About half of the total public sector investment, which is funded by external loans and grants, is not included in the Budget even though it is mostly (but not all) in the Public Investment Program. The remaining part (about 10 percent) of the total public sector investment belongs to the SOFAR and the Social Protection Fund, which are in neither the State Budget nor the Public Investment Program.

Obviously, with such fragmented and ambiguous public investment programming, it is not possible to speak of any public investment policy in Azerbaijan. This might be due to the lack of adequate recognition by GOAZ of the importance of the public investment policy and program. This note by the PIPP aims at briefly explaining: (a) the importance of having a properly formulated public investment policy and program, and (b) the required institutional, technical and organizational framework for it.

To remedy this fragmentation in public investment programming and use it as an effective tool for the management of economic and social development, PIPP recommends that GOAZ consider to:

1. Clearly identify the long- and medium-term national and sectoral development objectives and strategies;
2. Adopt SMART (Specific, Measurable, Achievable, Realistic, and Time-bound) medium-term targets and the necessary policies and projects to attain them;
3. Assure the consistency of all major targets, strategies and policies with national and sectoral development objectives as well as with each other within a formal macroeconomic and sectoral development framework;
4. Based on all these, formulate and issue early in each fiscal year a "Joint Call Circular" (JCC) to all government/budget organizations to guide and instruct them for their submissions to MOF and MOED for the preparation of the planning (e.g. SPPRED, RDP or their annual performance reviews and PIP) and budgeting (State Budget, Consolidated Budget and MTBF) documents;
5. Make the Public Investment Program an all-comprehensive review and evaluation instrument of the government's public investment policy; and,
6. Instruct all line ministries to prepare a Sector Strategic Development Program (SSDP) for each sector incorporating all sub-sector programs and serving as the basis for each ministry's unified response to the JCC.

GOAZ has already been practicing many elements of each of the above-mentioned policies and procedures. What is essentially required are not so much adopting radical changes in current practices and organization of the relevant agencies but instead better and more systematic

coordination and supervision of them. To this effect, PIPP recommends the following organizational arrangements:

- Determining the long- and medium-term development objectives and strategies are the most important political decisions that should be made only by the elected leadership (i.e., the President and the Parliamentarian Group of the political party in power) because only they have political responsibility and accountability for such decisions. The present practice in this respect needs to be better coordinated and based on technical grounds by a sub-group of the Cabinet of Ministers.
- This sub-group of the Cabinet, that may be called the High Policy Planning Council (HPPC), would be chaired by the President and composed of his Economic Advisor, the Prime Minister, MOED, MOF, the ANB Chairman (even though he is not a member of the Cabinet), and the line minister(s) who may be invited by the President to participate depending on the agenda of each meeting.
- Secretariat services to the HPPC would be provided by MOED, in close cooperation with MOF and ANB, considering that the work involved is essentially of the planning nature.

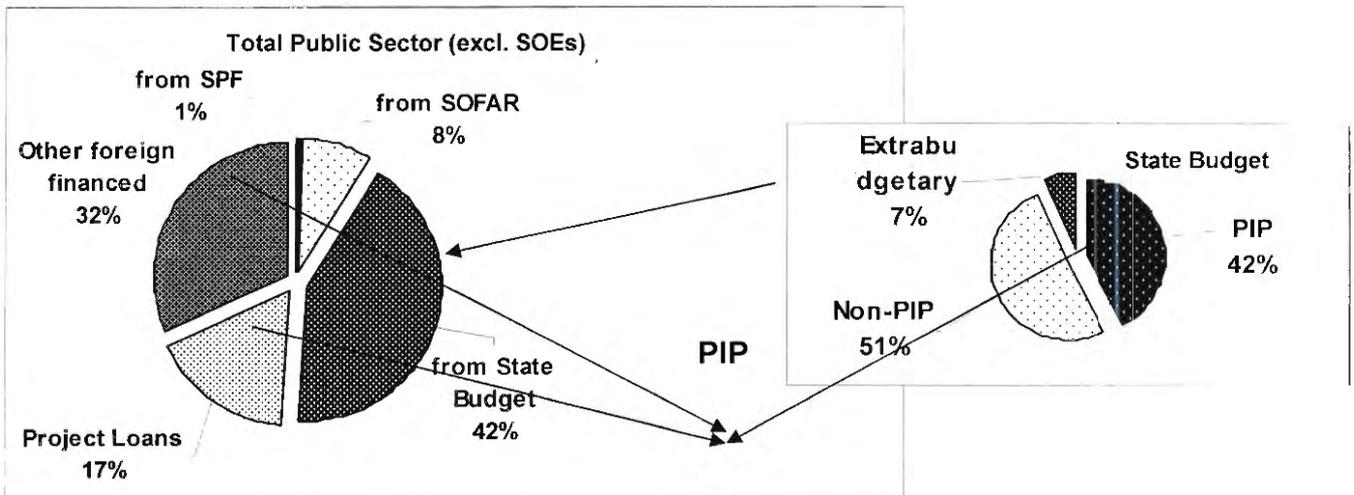
PIPP's recommendations above essentially aim at developing an appropriate macroeconomic and sectoral development framework that will serve as both a reference point and a consistency framework for the public investment policy and program formulation. The same development framework will, however, be shared by all other planning and budgeting documents, thus helping to better integrate the public investment programming with both the planning and budgeting documents. This would in turn result in better integration of planning (e.g., SPPRED) and budgeting (e.g., State budget) documents, particularly considering that the public investment program will largely be included in both categories.

Introduction

1. At present, Azerbaijan does not have a systematically thought-out and well-designed PIPP. Of total public capital (investment) spending (excluding that of fully or partly State Owned Enterprises -SOEs), just over 40 percent appears in the State Budget and the rest funded externally as well as by SOFAR and SPF does not. Of the part included in the State Budget, only less than a half is also included in the Public Investment Program (PIP). Most of externally funded public capital spending, which is not in the Budget, is however included in the PIP. In other words, there is a part of total public capital spending (other than that of SOEs) which is in neither the Budget nor the PIP. This sounds almost incomprehensible, and yet it describes the actual situation (see Diagram 1). The picture becomes even more perplexing considering that the PIP-related draft regulations, waiting for the Presidential approval, call for the inclusion of the SOE projects as well as the private sector projects of public importance. Obviously, with such fragmented and ambiguous public investment programming, it is not possible even to speak of any public investment policy in Azerbaijan. Hence, it would not be inappropriate to state that PIPP's importance is not adequately recognized by the Government of Azerbaijan (GOAZ).

This note aims at briefly explaining: (a) the importance of PIPP, and (b) the required institutional and technical framework to formulate a proper PIPP. The note is solely interested in effectively communicating the PIPE's position on these two issues to the top decision makers in the Government. To this end, it relies on elementary economics and national income accounting and on repetition of some key points to drive them home.

Diagram 1: Public Sector Investments



Importance of PIPP

2. PIPP is important because of crucial effects of investment in general and public investment in particular, on the economy and well-being of the population. The overall goal of government in every country is (or should be) to maximize the country's total resource use in the most efficient way. Resources can be used up for either consumption or investment. The word "efficient" is a highly loaded adjective in the context it is used here: it refers to the way national resources should be used to give the population the greatest possible satisfaction increasing at a steady rate over the long-term.

3. Population derives satisfaction from consumption, as opposed to investment, of national resources (goods and services). Hence, as consumptions' share of total national resources increases, the population becomes better provided for and happier, and consequently the government becomes more successful and popular. Population's overall satisfaction from consumption depends not only on the size of total consumption but also on the quality of consumption and on its distribution both between government (collective) and private consumption and by income groups.

4. On the other hand, investment is important because it represents an addition to the existing production capacity and thus makes a higher future consumption possible. Hence, keeping investment lower to allow for greater satisfaction (consumption) by population now comes at the expense of lower future satisfaction (consumption).

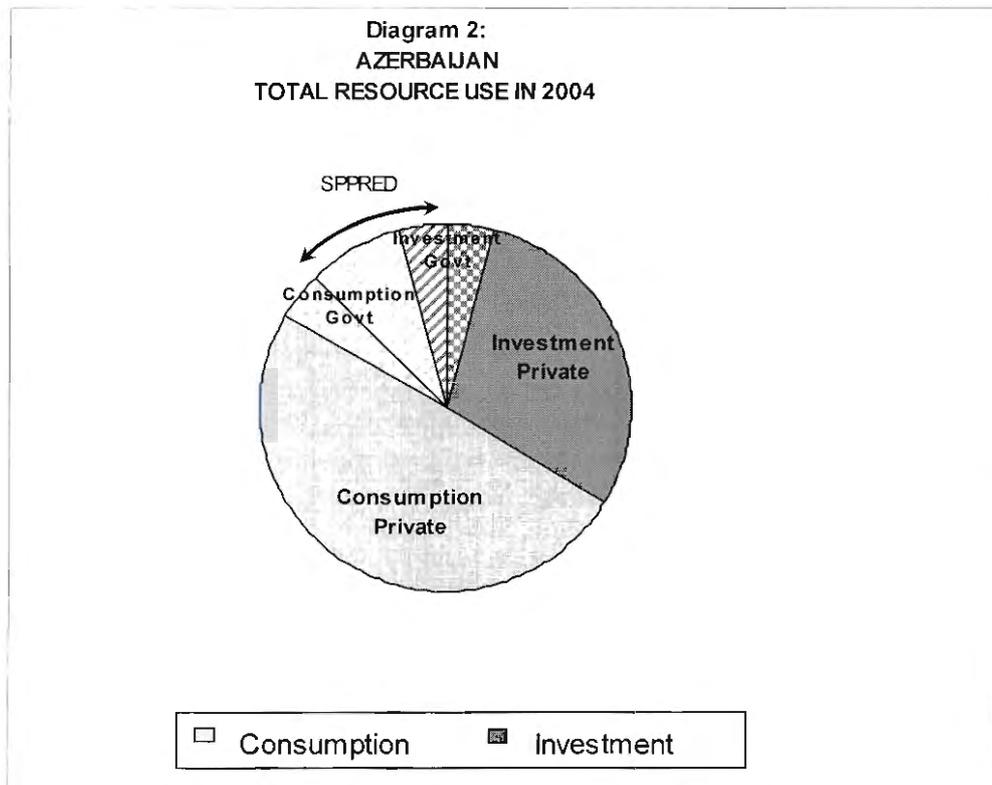
5. Investment is also important because its quality (technology) and distribution between government and private investment, between foreign and domestic investors, by sectors, by regions, by size of investors, etc. are all very relevant to the level, composition, and quality of consumption, hence satisfaction, that would become possible in future.

6. Finally, investment is important not only because it represents additional productive capacity but also because it directly and one-to-one increases current total demand, thus constituting an important element of demand management policies for macroeconomic stability.

7. GOAZ has all the power (authority) and the means (e.g., the fiscal, monetary, exchange rate, and other policies) to determine or influence the overall size, composition and growth path of national consumption, and thus well-being of the people, both directly through consumption-related policies and activities and indirectly by investment-related policies and activities. Reciprocally, this means that the Government could determine or influence the overall size, composition and growth path of national investment, and thus the future well-being of the population, both directly through investment-related policies and activities and indirectly by consumption-related policies and activities.

8. More specifically, once GOAZ decides on what should be the size and growth path of total resource use by the public sector, it has an immense task of allocating and prioritizing public resource use between collective consumption (current expenditures) and collective investment (capital expenditure) and the each among various sectors. Finally, the size and composition of public investment and its growth path will be the main factor determining both the size and composition of future public consumption, and it will also greatly influence both composition and productivity of future private sector investment.

9. The following pie diagram (Diagram 2) illustrates the main components of national resource use in any economy as described above, except for the distribution of private consumption by income groups and that of public resource use by economic sectors. Public investment and consumption expenditures are each shown as broken-down by poverty-reduction-related expenditures and otherwise, thus identifying the share of total national resources used by the public sector for poverty reduction purposes (i.e., for SPPRED in Azerbaijan).



10. Diagram 2 delineates the distribution of national resource use between consumption and investment at about 60/40, which roughly corresponds to that in Azerbaijan in 2004. Unfortunately, it is not possible to give the specific Azerbaijan data for any other components of the diagram because of the lack of such statistics in the national accounts publications of the State Statistics Committee (SSC). The allocation of total investment between the public and private sector and that of the former between SPPRED and non-SPPRED are not known. The estimation of “public sector consumption” in national accounting terms is of doubtful reliability, and what part of it goes to SPPRED is not known. Obviously, GOAZ cannot have a sound macroeconomic and sectoral planning, nor can it formulate and pursue healthy macroeconomic, fiscal, investment and monetary policies without correctly defined and estimated (i.e., by national accounting concepts and methodology) components of national resource use as described above.

11. The following sums up the important conclusions of this section:

- The formulation of a sound public investment policy and program is of utmost importance for Azerbaijan as for all countries;
- This is a highly skill-requiring technical task and that it should be handled by expert cadres in line with national and sectoral objectives and major strategies determined by the government;
- A corollary of the above is that the PIPP process should not be subject to arbitrary interventions by the politicians and high government officials;
- GOAZ, however, does not have a PIPP even slightly resembling to that described above; and,
- Both GOAZ and all major IFIs seem to have overlooked the need for correctly defined and estimated national and government accounting components, which are the bread-and-butter tools of proper macroeconomic analysis and management. It is time now to act on this serious shortcoming.

Required Macroeconomic Framework for a Proper PIPP

12. What emerges from all that was said so far is that a sound PIPP cannot be formulated in isolation from other major planning (SPPRED, SPRDP, and Sector Development Plans) and budgeting (State Budget, Consolidated Budget and MTEF) instruments, because (a) they all aim at formulating the future course of the same or inter-related components of the macroeconomic and sector development framework as the PIPP does and (b) the PIPP is either fully or partly included in all of them. It also follows that all major planning and budgeting instruments, including the PIPP, should be guided by the same macroeconomic and sector development framework. The latter should also be used as a consistency framework to align the planning and budgeting instruments with each other.

13. At present, in the absence of such a macroeconomic and sectoral development framework, the Azerbaijan economy is like a rudderless boat at sea, without the necessary instruments to keep it on a desired course. For instance, it has the following policy and planning instruments each suffering, as indicated below, from major shortcomings:

1. A Macroeconomic Financial Model (MFM) was used to be worked out essentially by the IMF, with the help of MOF and the National Bank of Azerbaijan (NBA), for defining the key fiscal and monetary magnitudes compatible with macroeconomic

stability required by the Fund's PRGF for Azerbaijan. GOAZ, however, has decided not to seek continuation of PRGF beyond 2005. Besides, the PRGF model does not have any sectoral content, nor has any consideration of the private (non-government) sector. It is interesting that this framework, which used to serve as the basis of the GOAZ's Letter of Intent presented to the IMF and the WB for PRGF and PRC , respectively, was observed in the formulation of only the monetary program but not in that of the State Budget, SPPRED and SPRD.

2. MOED/EPFD prepares a set of macroeconomic projections, without using any formal model, which is inserted into the text of SPPRED without being integrated with its content. The State Budget uses the MOED/EPFD projections for its revenue estimates and the PRGF model for expenditure ceilings (the logic of MOF approach in this case is beyond PIPE's comprehension).
3. A poverty reduction strategy paper (SPPRED) and a regional development program (SPRD), which are both without any framework of their own and both lack any linkage to an economy-wide macro and sectoral framework. The SPPRED purports to plan the government's poverty reduction policies, but it does so without identifying what parts of public investment (which itself is not known as noted above) and public consumption expenditures will be used for that purpose. Nor does it have a clear one-to-one relationship to the government budget as its policies and activities are not annualized and adequately specified.
4. Sector Development Plans by a number of line ministries, each reflecting aspirations of its sector irrespective of any resource and consistency concerns.
5. An annual State Budget that leaves out all foreign funded investment projects, and most projects of the extra-budgetary organizations (namely, SPF and SOFAR). The Budget has only a "notional" link to SPPRED and SPRD as line ministries claim that all their spending proposals are in line with government priorities for poverty reduction policies.
6. A so-called Consolidated Budget that includes only the domestically funded part of the present PIP just as one line item.
7. A four year rolling Medium-Term Budgetary Framework (MTBF) compressed into a one-page table.
8. Finally, a Public Investment Program (PIP), which has an "indeterminate" and partial coverage as noted at the beginning of this paper.

14. What emerge from the above review are the following basic initial requirements, should Azerbaijan have a sound and effective PIPP:

- i. The PIPP preparation should start with the adoption of:
 - a) a correct definition and coverage of public investment as a basis for the formulation of a comprehensive public investment policy; and
 - b) a set of comprehensive and adequately detailed government instructions and guidance as to national and sectoral development objectives and strategies over the medium- to long-term.
- ii. For logical and consistency reasons, this set of instructions and guidance should be shared and complied by all those planning and budgeting tools named above.
- iii. The determination of national and sectoral objectives and strategies, which is essentially a political decision by the government, should nevertheless be based on a national and sectoral development framework (model) in order to ensure their feasibility and inter-consistency.
- iv. Similarly, the PIPP should be developed by using one and the same national and sectoral development framework that should also be shared by all other planning and

budgeting instruments. This would ensure both intra-consistency of the PIPP as well as its integration and consistency with other plan and budget documents.

Required Institutional and Organizational Setting

15. At present, Azerbaijan does not have a PIPP satisfying the above requirements. The PIPE project aims at helping the GOAZ to develop its institutional and technical capacity to meet these requirements. To this end, the PIPE WP's first three tasks address the following issues:

1. Identifying the necessary organizational set-up for the Government to determine national and sectoral development objectives and strategies;
2. Developing an appropriate national and sectoral development framework (model) at the MOED with the cooperation of MOF and NBA; and,
3. Enhancing the institutional and technical capacity of the sectoral agencies (ministries) as well vis-à-vis these two aspects.

16. As already explained, these three tasks are not specific to the PIPP alone. They are equally important for all other planning (SPPRED and SPRD) and budgeting (MTBF, State Budget, Consolidated Budget) instruments and, therefore, have to be addressed so as to serve the common requirement of all the major documents. PIPE is addressing the first issue in this paper, and leaving the other two to be addressed in separate technical notes.

17. **Government's Political Responsibility:** Defining national and sectoral development objectives and strategies is essentially a political decision that can (and should) be made only by the government. It involves accepting certain trade-offs, in terms of economic, social and political costs, for choosing one alternative against another. For instance, in order to allow greater current and capital spending on education, the government may opt to reduce productive investments now, entailing a lower annual rate of growth and lower consumption by the population. This decision might yield adverse political consequences for the government in the short run. Besides, in a democratic country, only the elected government should have the authority and responsibility for decisions involving trade-offs between the current and the future generations' benefits.

18. The elected central Government in Azerbaijan comprises the Parliament, representing the legislative power, and the President the executive power. The major planning and budgeting documents mentioned above should be prepared and implemented by the Administration, on behalf of the President, and endorsed by the Parliament, all in accordance with the relevant legislation. The successful formulation and implementation of the plan and budget documents will greatly contribute to Azerbaijan's having a satisfactory social and economic development; and to the Government and the political party it belongs to remaining in power. It is thus of crucial importance that the Government (the President and, on his behalf, the Cabinet of Ministers) uses the plan and budget documents as the effective vehicles to implement its Party program, its last election platform, its recently announced promises in connection with the recent Parliamentary elections, and recent official statements to various IFIs and international forums.

19. This requires that the Government provides all its central and line agencies with a comprehensive but adequately detailed set of guidance and instructions for national and sectoral development objectives and strategies as perceived by its elected leadership and

political cadres. At present, however, the GOAZ is indifferent to such a critical issue as reflected in the absence of any meaningful guidance by the government to the agencies in charge of the plan and budget documents. This not only leads to weaknesses and inefficiencies in the management of the economy but also deprives the Government of a major opportunity to strengthen its political standing with the electorate. Once the proposed conceptual and organizational linkage is publicly established between the plan/budget targets and the Government/public's political choices, this will greatly contribute to the strengthening of participatory and democratic governance in the country. Otherwise, the government's apathy in this respect cannot be rectified by the bureaucratic/technical cadres because both responsibility and accountability of providing the required guidance to the plan and budget preparation are of political nature and belong to the elected leadership.

20. Organizational Set-up for Undertaking and Evaluating Technical Work: Identifying national and sectoral development objectives and strategies is a political task with responsibility and accountability belonging to the Government (President and on his behalf the Cabinet). But as already explained in the previous section, this task involves extensive and highly skill-intensive work that should be undertaken by technical cadres. This is particularly the case considering that the work to be done should provide guidance not only to the PIPP but, as explained above, simultaneously to all the plan and budget documents. On the other hand, the review and evaluation of such an extensive and technical work cannot be done by the whole Cabinet and the President.

21. It is therefore suggested here that an "Inner Cabinet" comprising the economic ministries/agencies is formed to review, evaluate and screen the decisions and documents relating to major economic and social programs before submitting them to the Cabinet and the President for approval. This Cabinet cluster can be called the "**High Policy Planning Council (HPPC) for Socio-Economic Programs and Policies**". Technical work to be done for the HPPC essentially involves development planning (i.e., developing a macroeconomic and sectoral framework; identifying appropriate development targets and policies; and checking their inter-consistency). Therefore, such "**Secretariat Services**" should be provided by MOED in close cooperation with MOF, NBA and all technical ministries and agencies. While providing secretariat services to the HPPC, MOED could also benefit from its participation in and/or consultation with such cross-cutting inter-agency bodies as the WB-proposed Budget Commission and the existing Revenue Commission, the Expenditure Commission, and the Revenue Management Group (of the major donors).

22. A Unified Process for Launching Preparation of the Plan and Budget Documents: It is hoped that this note has by now established that:

1. The preparation of PIPP should be guided by the **same set of macroeconomic and sectoral development objectives and strategies** that should also guide all other plan and budget documents;
2. **The one-and-the-same macroeconomic and sectoral development framework (model)** should be used to ensure both linkages and consistencies of these documents with both government objectives and strategies and with each other;
3. **Responsibility and accountability** for determining national objectives and strategies rest with the **Government (the elected leadership)**; and,
4. The government should exercise this responsibility through a Cabinet cluster (**HPPC**) and a Planning Agency (**MOED**) provide secretariat services to it.

23. The next issue is how to assure that the individual plan and budget documents will conform to government objectives and strategies and will be interlinked and consistent with each other. This requires that the initial guidance and instructions (e.g., Budget Call Circular) issued to set-off the preparation of each document by the relevant ministry/agency are designed with a proper concern for all the issues raised above, and that this is verified by MOED. At present, however, the work on the individual documents is started by different ministries and even different departments within a ministry at different times and perhaps with little ad hoc guidance by and consultation with the elected leadership of the Government. Moreover, the MOED is neither authorized nor technically equipped with for evaluating and endorsing the separate Call Circulars (e.g., for SEDP, SPPRED or its Annual Performance Review, the State Budget and MTBF, and the PIP).

24. The remedy to the fragmented state of macroeconomic and public expenditure management in Azerbaijan can be provided by:

- Unifying the separate guidance and instructions issued at different times for each plan and budget documents into a “Joint Call Circulars” (JCC);
- Unifying each line agency's responses to the JCC's request for inputs to different plan and budget documents into one combined response; and
- Supplying the same set of information from all the budget organizations to the central ministries (MOED and MOF) to serve as the common base for the preparation of both planning and budgeting documents, thus assuring their linkages and consistency with each other.

25. There will be a need, however, to synchronize the preparation of all planning and budgeting documents. This should not cause much difficulty because the preparation of MTBF and State Budget is a combined annual process with a definite time-table while the planning documents can both be flexible with regard to their inception date and work perfectly well with a few months old information. On the other hand, the budget organizations will benefit immensely from the proposed approach of issuing a JCC to them for a unified response that will simplify and reduce reporting responsibilities and will ease achieving consistency between their planning and budgeting submissions.

26. The proposed organizational set-up for effective linkage and integration of the main plan and budget instruments with national and sectoral objectives and strategies as well as with each other is delineated below by an organogram (organizational chart). The main issues of the PIPE-proposed approach which are highlighted by Diagram 3 are as follows¹:

The diagram shows the main flows of information both among the key agencies and between the each agency and the main document(s) it is responsible for.

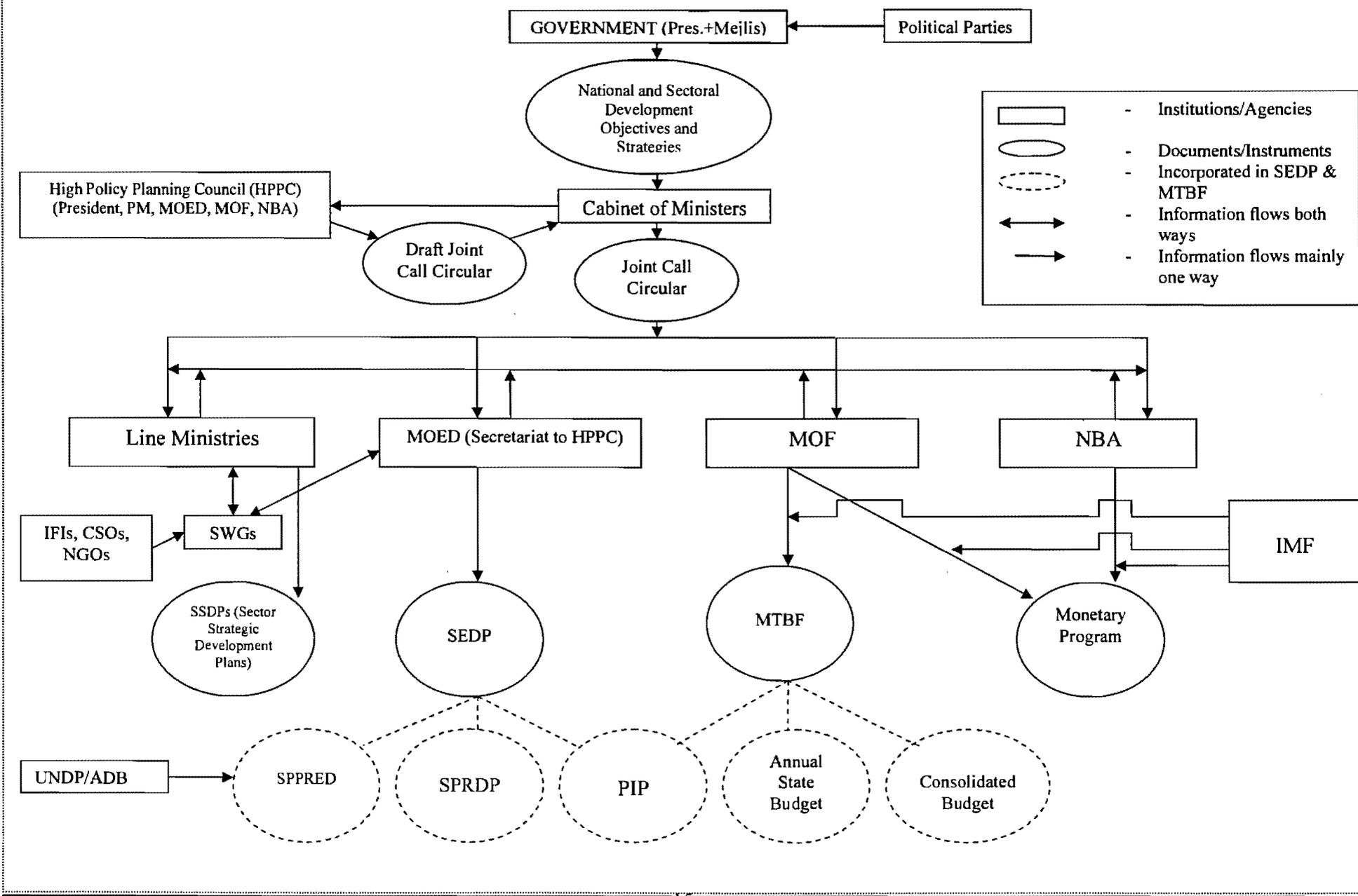
- The preparation of all the key plan and budget documents starts with the issuance to the Cabinet of Ministers (and the public) of national and sectoral development objectives and strategies by the GOAZ (the elected leadership);
- The HPPC reviews and evaluates the alternative macroeconomic and sectoral development scenarios prepared by MOED (with the help of MOF, NBA and line

¹ **Note:** The Diagram shows the information flow among the agencies and from each agency to its main document(s). But it does not show the inter-documents flows, which will make a diagram to a clumsy. Obviously, inter-documents flows take place through the exchange of raw data and agencies draft copies as well as among free use of thru each document by all agencies.

agencies) with their fiscal and monetary implications, and decides on a base-line as well as an optimistic scenario to recommend to the COM.

- Based on the Cabinet's decision, a detailed draft JCC, with tentative sector spending ceilings, is issued to all budgetary organizations. The JCC will require line ministries to simultaneously submit to MOED and MOF their responses, which should each combine inputs for SPPRED, SPRD (or their Annual Progress Reports), MTBF, Consolidated Budget, State Budget, and PIP.
- In the light of the draft JCC, each line ministry will prepare (or revise the existing) SSDP for its sector. In this endeavor, it will also benefit from the recent SWG findings and recommendations as well as from consultations with non-government stakeholders of the sector.
- If prepared in line with the guidance and instructions of the JCC, particularly with its sector resource/spending ceiling, SSDP will serve as an ideal source for the ministry's joint submission to MOED and MOF of its unified input for all plan and budget documents.
- MOED must have already developed a medium-term (4-year) macroeconomic and sector development framework (Social and Economic Development Concept and Prognoses- SEDCP) while preparing the draft JCC for the HPPC. Line ministries' responses to the JCC will be now used to revise and update SEDCP, which would in turn be used, in conjunction with the former, as the basis for the preparation of SPPRED, SPRD, and PIPP.
- It is only rational to assume that no policies, activities and projects will be included in the base-case scenarios of SPPRED, SPRD, and PIPP which are not already in line ministries' submissions for the MTBF and Budget documents. This, however, requires that the said documents are transformed from being wish-lists, including "every good thing under the sun", to the operational documents recognizing the economic, social and political constraints of the country.
- While MOED is working on the plan documents, MOF will simultaneously work, using the JCC and line ministries' unified responses to it, on the MTBF, the Consolidated Budget and the State Budget, which will all incorporate the PIPP. The MTBF will in fact provide a macroeconomic and sector framework and justification to all the budget documents, linking them to SEDCP, SPPRED and SPRD.
- Finally, the NBA will develop, in cooperation with MOF and the IMF, the Monetary Program which should be compatible with, and instrumental in achieving, the growth, inflation, and exchange rate targets of GOAZ within the framework of SEDCP.

DIAGRAM 3: FLOW OF INFORMATION FOR PLANNING & BUDGETING PROCESSES (A Proposed Approach)



Proposed Structure and SOW for the HPPC

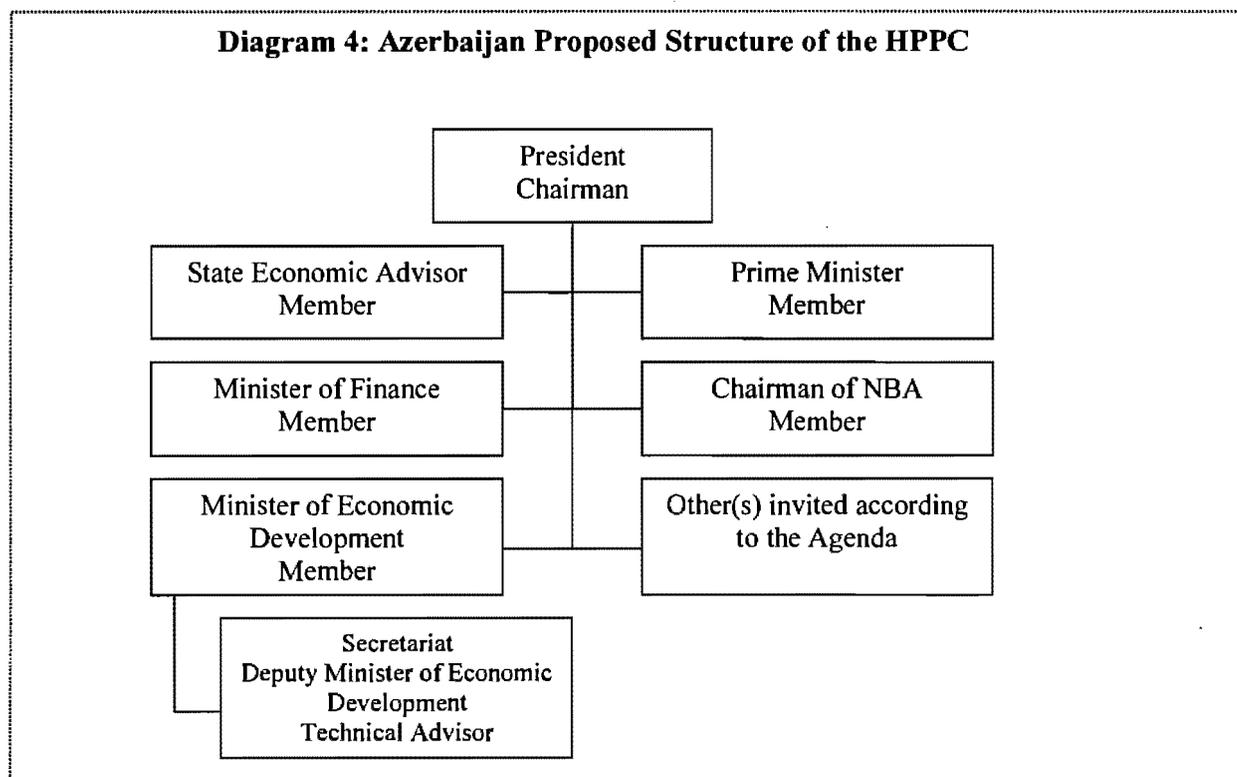
27. **The Structure of HPPC:** In Azerbaijan, the President alone represents the executive (and administrative) power and shares with the Parliament (the legislative power) the responsibility for governing the country. The President exercises the executive power through a Cabinet of Ministers appointed by him, though the appointment of the Prime Minister (PM), who has mainly a coordination role, is to be approved by the Parliament. Thus, the preparation and execution of all the plan and budget documents are the responsibility of the President, who discharges it with the help of the PM and the Cabinet. Within the Cabinet, the planning work (e.g., SPPRED, SPRD, PIP) is led and mainly undertaken by MOED and the budgeting work (MTBF, State Budget, Consolidated Budget) by MOF. These tasks, however, are too wide-ranging and widely cross-cutting in coverage, involving the whole economic and social development spectrum, and too specialized in skill requirements for the whole Cabinet to carry out the guidance, oversight, appraisal, and approval of them as a team². As in most countries, it is, therefore, advisable to form a special “Cabinet cluster” to guide, evaluate and screen major planning and budgeting decisions and documents before their final submission to the Cabinet and the President³. To this effect, PIPE proposes establishment of a “**High Policy Planning Council (HPPC) for Economic and Social Development**”.

28. **The HPPC will be established by a Presidential Decree that will also sanction its charter.** The President himself will be its chairman, and its statutory members will include the State Economic Advisor (SEA), the PM, MOED, MOF, and the Chairman of NBA. The President may ask SEA or PM to chair some meetings on his behalf. The chairman may also invite other ministers/agency heads to participate in parts of meetings as he deems necessary depending on the agenda. As secretariat services are to be provided by MOED, the Deputy MOED or Director of MPFD/MOED should also be present as advisor and reporter. Participating ministers and agency heads will be accompanied by their advisers, whom may be called upon to present technical information on and justification for their agency’s case. The HPPC meetings will be convened by the President to discuss the issues identified in its charter as they become due for decision as well as on ad hoc basis when he needs its advice. The meeting may last from a few days to a week or even longer depending on the subject(s) of its agenda.

² At present, ministers and non-ministerial members of the Cabinet of Ministers in Azerbaijan amount to 38. However, as distinct from the countries with a parliamentary system of government, a Cabinet decision in Azerbaijan is not expected to be signed by all members. For instance, in the case of the draft Budget, about 25 signatures are needed for its submission to the President.

³ When met with such proposals, the government officials in Azerbaijan are usually interested to first know if they are implemented in some countries. However, the PIPE proposal for the establishment of HPPC does not need examples for convincing anyone as it is based on an undeniable need for a centralized determination of national and sectoral objectives and strategies and is obviously the most logical and simplest approach to meeting this need. Nonetheless, the following examples are still quoted here to satisfy those who will not be content with rationality alone. The World Bank prepared a note (dated June 2005) on “Azerbaijan: Ideas for a Budget Reform Action Plan”, which also suggests the establishment of a “Cabinet sub-structure” for the same purpose as that of the PIPP’s HPPC, and briefly explains the examples of South Africa and Uganda. We would like to add to this the examples of Turkey (“Yukse Planlama kurulu” –High Planning Council—since early 1960s) and the Philippine.

Diagram 4: Azerbaijan Proposed Structure of the HPPC



29. The **SOW of the HPPC will be determined by its charter**, and may include both advisory and operational tasks. In its advisory capacity, the HPPC will review and evaluate some major economic and social policy decisions and documents, including the JCC, and submit its recommendation to the Cabinet and the President. The HPPC charter may also identify some specific tasks and areas for which it can take operational decisions that can be implemented without approval of the Cabinet or any other body.

30. The main tasks of the HPPC, particularly relating to PIPE, would include the following:

- Help the Cabinet of Ministers and the President in identifying the policy objectives and strategies for economic and social development of the country;
- Review and evaluate the plan and budget documents (SPPRED, SPRD, PIP, MTBF, State and Consolidated Budgets, Monetary Program) for their quality and compliance with the national objectives and strategies before their submission to the Cabinet and the President;
- Determine the ground rules and main principles for support of investment and exports; and
- Review and evaluate every measure and project relating to State Owned Enterprise (SOEs) in the plan documents, including their privatization, and advise the COM on appropriate decision.

**AZERBAIJAN
PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP**

**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT ANALYSIS
AND PERFORMANCE ASSESSMENT: FROM KEY CONCEPTS TO PRACTICE**

GLOSSARY OF KEY TERMS

Average incremental economic cost (AIEC). The present value of investment and operation costs at economic prices, divided by the present value of the quantity of output. Costs and output are calculated from the difference between the without project and with project situations, and are discounted at the economic opportunity cost of capital.

Average incremental financial cost (AIFC). The present value of investment and operation costs at financial prices divided by the present value of the quantity of output. Costs and output are calculated from the difference between the without project and with project situations, and are discounted at the opportunity cost of capital or at the weighted average cost of capital.

Benefit-cost ratio (BCR). The ratio of the present value of the economic benefits stream to the present value of the economic costs stream, each discounted at the economic opportunity cost of capital. The ratio should be greater than 1.0 for a project to be acceptable.

Benefit transfer technique. The use of primary research results from other countries, adapted to a particular project, for valuation of project effects. Used especially in the valuation of environmental benefits and costs where national studies of environmental stressors are lacking.

Border price. The unit price of a traded good at a country's border, that is, the free-on-board (FOB) price for exports and the cost, insurance, freight (CIF) price for imports. The border price is measured at the point of entry to a country, or, for landlocked countries, at the railhead or trucking point.

Border price equivalent value (BPEV). The border price for a traded good for the country concerned, adjusted to the project location.

Constant prices. Future price values from which any expected change in the general price level is removed. When applied to all project costs and benefits over the life of the project, the resulting project statement is in constant prices. Expected significant changes in relative prices, that is, in expected price changes for an item compared with the expected change in the general price level, should also be incorporated in the valuation of costs and benefits at constant prices.

Consumer surplus. Savings to existing consumers arising from the difference between what they are willing to pay for an output and what they will be charged with the project. Consumer surplus can arise when expanded supply is associated with a fall in price. It can also arise when the output price is regulated by government and set below the demand price.

Consumption tax. Taxes levied on the consumption of goods and services. Indirect taxes on consumption include excise duties, wholesale or retail sales taxes, value-added taxes, or other taxes on intermediate transactions. Consumption taxes form a wedge between the price paid by the purchaser and the price received by the supplier. For any good or service, the demand price is the market price plus consumption taxes and less consumption subsidies.

Contingency allowance. An allowance included in the project cost estimates to allow for adverse conditions that will add to base costs. Physical contingencies representing the monetary value of additional resources that may be required beyond the base cost to complete the project are included in the economic cost of a project. Price contingencies allow, for financing purposes, for general inflation during the implementation period but are not included in a constant price project statement.

Contingent valuation. A direct means of estimating willingness to pay based on stated preferences of consumers in the situation with the project. Contingent valuation estimates can be used to provide an estimate of the economic value of incremental nontraded outputs and inputs, especially those, such as environmental effects, for which there is no direct market information.

Conversion factor (CF). Ratio between the economic price value and the financial price value for a project output or input, which can be used to convert the constant price financial values of project benefits and costs to economic values. Conversion factors can also be applied for groups of typical items, such as, petrochemicals or grains; and for the economy as a whole, as in the standard conversion factor or shadow exchange rate factor.

Cost-effectiveness analysis (CEA). An analysis that seeks to find the best alternative activity, process, or intervention that minimizes resource use to achieve a desired result. Alternatively, where resources are constrained, analysis that seeks to identify the best alternative that maximizes results for a given application of resources. CEA is applied when project effects can be identified and quantified but not adequately valued.

Cost-effectiveness ratio. The ratio of the present value of project costs to the present value of project effects or outcomes, where costs and effects are discounted at the opportunity cost of capital. Choice of the means with the lowest cost-effectiveness ratio will maximize results for a given input of resources. It also provides the baseline for assessing how much it would cost in terms of extra resources to achieve greater results, through the use of more effective but more costly alternatives.

Cost recovery. The extent to which user charges for goods and services recover the full costs of providing such services, including a return on capital employed. Can be defined in terms of financial cost recovery using financial costs or economic cost recovery using economic costs. See also Subsidy.

Current prices. Future price values that include the effects of expected general price inflation. When applied to all project inputs and outputs, they provide a project statement in current prices.

Demand price. The price at which purchasers are willing to buy a given amount of project output, or the price at which a project is willing to buy a given amount of a project input.

Depletion premium. A premium imposed on the economic cost of depletable resources representing the loss to the national economy in the future of using up the resource today. The premium is frequently estimated as the additional cost of an alternative supply of the resource, or a substitute, when the least cost source of supply has been depleted.

Discount rate. A percentage rate representing the rate at which the value of equivalent benefits and costs decrease in the future compared to the present. The rate can be based on the alternative economic return in other uses given up by committing resources to a particular

project, or on the preference for consumption benefits today rather than later. The discount rate is used to determine the present value of future benefit and cost streams.

Distribution effects. An analysis of the net income effects of project costs and benefits on different project participants, including the difference between financial and economic values for project outputs and inputs. Distribution effects can refer to the net income effects between, at least, producers, users, and government, and sometimes workers and lenders, as well, for utility projects; to the particular net income effect for the poor; and to the net income effect for foreign and domestic participants.

Economic efficiency. A criterion for assessing an investment or intervention in an economy. An investment or intervention is said to be economically efficient when it maximizes the value of output from the resources available.

Economic internal rate of return (EIRR). The rate of return that would be achieved on all project resource costs, where all benefits and costs are measured in economic prices. The EIRR is calculated as the rate of discount for which the present value of the net benefit stream becomes zero, or at which the present value of the benefit stream is equal to the present value of the cost stream. For a project to be acceptable the EIRR should be greater than the economic opportunity cost of capital.

Economic opportunity cost of capital (EOCK). The real rate of return in economic prices on the marginal unit of investment in its best alternative use. This rate of return is estimated as the weighted average of the economic demand and supply price of capital, and therefore will be equal to the value of the marginal unit of investible funds to both investors and savers.

Economic price of land. The economic effect of the change in land use as a result of a project. Changes in land use can be the direct result of a project, or indirect, through the consequent displacement and relocation of households or economic activities. The economic price of land is estimated through its economic value in the best alternative use. In practice this is generally taken as the net economic value of production lost when land use changes. This valuation should include anticipated future changes in the productivity of the land. It can also be estimated through the willingness to pay to retain a without project land use.

Economic viability. The assessment that increases in output produced by a project using the least cost method will recover costs, provide an additional required rate of return, and sustain effective production in the face of uncertainty and risk.

Effective assistance ratio (EAR). The ratio of value added generated by an activity measured at financial prices to value added for the same activity measured at economic prices. The EAR provides a summary measure of the protective effect of government policy measures, such as taxes and subsidies, and market structure. Also referred to as the effective protection ratio.

Elasticity. The ratio of the proportionate change in one variable caused by a proportionate change in another variable, all other conditions remaining constant. For example, it is used to refer to the price elasticity of demand, that is, the relative response of demand to price changes; or the income elasticity of demand, that is, the relative response of demand to income changes.

Environmental sustainability. The assessment that a projects outputs can be produced without permanent and unacceptable change in the natural environment on which it and other economic activities depend, over the life of the project.

Environmental valuation. The estimation of the use and nonuse values of the environmental effects of a project. These valuations can be based on underlying damage functions for environmental stressors, identifying the extra physical costs of projects or the physical benefits of mitigatory actions. They can also be based on market behavior, which may reveal the value placed by different groups on avoiding environmental costs or enjoying environmental benefits.

Equalizing discount rate (EDR). The discount rate at which the present values of two project alternatives are equal. It is the same as the internal rate of return on the incremental effects of undertaking an alternative with larger net costs earlier in the net benefit stream rather than an alternative with lower early net costs. The EDR is compared with the economic opportunity cost of capital to determine whether the alternative with larger net costs is worthwhile. Also referred to as the crossover discount rate, the discount rate above or below which the preferred alternative changes from one to another.

Excludability. The ability of suppliers to restrict the availability of outputs to those who can pay for it, or by other criteria. See also Private goods and Public goods.

Externality. Effects of an economic activity not included in the project statement from the point of view of the main project participants, and therefore not included in the financial costs and revenues that accrue to them. Externalities represent part of the difference between private costs and benefits, and social costs and benefits. Externalities should be quantified and valued, and included in the project statement for economic analysis.

Financial internal rate of return (FIRR). The rate of return that would be achieved on all project costs, where all costs are measured in financial prices and when benefits represent the financial revenues that would accrue to the main project participant. The FIRR is the rate of discount for which the present value of the net revenue stream becomes zero, or at which the present value of the revenue stream is equal to the present value of the cost stream. It should be compared with the opportunity cost of capital, or the weighted average cost of capital, to assess the financial sustainability of a project.

Financial sustainability. The assessment that a project will have sufficient funds to meet all its resource and financing obligations, whether these funds come from user charges or budget sources; will provide sufficient incentive to maintain the participation of all project participants; and will be able to respond to adverse changes in financial conditions.

Gross economic benefit. The total economic value of project output, measured as the sum of the economic value of nonincremental output that displaces other supplies and the economic value of incremental output that increases supplies.

Gross economic cost. The total economic value of a project input, calculated as the sum of the economic value of incremental demands that are met by greater supplies of the input and the economic value of nonincremental demands that are met by drawing supplies away from other uses.

Incremental outputs and inputs. Incremental output is additional output produced by a project over and above what would be available and demanded in the without project situation. Incremental inputs are inputs that are supplied from an increase in production of the input over and above what would be produced and supplied in the without project situation.

Least-cost analysis. Analysis that compares the costs of technically feasible but mutually exclusive alternatives for supplying output to meet a given forecast demand. The analysis should be carried out using discounted values over the life of a project, where possible, using

the opportunity cost of capital as the discount rate. Such analysis is used to identify the least cost option for meeting project demand.

Market failure. The inability of a system of market production to provide certain goods either at all or at the optimal level because of imperfections in the market mechanism; or the inability of a system of markets to fully account for all costs of supplying outputs. Market failure results in the overproduction of goods and services having negative external effects and the underproduction of goods and services having positive external effects. Market failure occurs for different reasons, for example, inadequate information, inadequate capacity, regulation of the movement of labor and capital, or rent-seeking behavior by producers. The existence of market failure provides a case for collective or government action directed at improving efficiency.

Mutually exclusive project alternatives. Alternative technologies, locations, scales, or timing of project costs such that the selection of one option leads to the rejection of others. Mutually exclusive project alternatives can be compared to arrive at the best project design.

Net present value (NPV). The difference between the present value of the benefit stream and the present value of the cost stream for a project. The net present value calculated at the Banks discount rate should be greater than zero for a project to be acceptable.

Nominal prices. An alternative expression for current prices. See Current prices.

Nonincremental outputs and inputs. Nonincremental output is output produced by a project that substitutes for supplies that would be available in the without project situation. Nonincremental inputs are inputs that are supplied to a project that, in the without project situation, would be produced and supplied to another project.

Nonmarket failure. Inefficiencies in the implementation and operation of economic activities. These may result from inadequate incentives to those involved in the provision of goods and services, inadequate information about methods and techniques, inadequate resources for maintenance and operation, or lack of accountability for outputs produced. Nonmarket failures can lead to insufficient and costly supplies, especially of public goods produced in uncompetitive circumstances.

Nontraded outputs and inputs. Goods and services that are not imported or exported by the country in which the project is located, because by their nature they must be produced and sold within the domestic economy, for example, domestic transport and construction, or because of government policy that prohibits international trade, or because there is no international market for the product given its quality or cost. Nontraded outputs that are incremental should be valued at their demand price, that is, at the average of their value to new and existing consumers without and with the project. Nontraded outputs that are nonincremental should be valued at their supply price, that is, taking into account the cost of supply of the alternative output being displaced. Nontraded inputs that are incremental should be valued at their supply price, that is, at the marginal economic costs of extra supply. Nontraded inputs that are nonincremental should be valued at their demand price, that is, at the average of the price that existing consumers would be willing to pay to retain supplies, and the price that new consumers would be willing to pay to acquire supplies.

Numeraire. The common yardstick that measures the objective being maximized. In project financial analysis this yardstick is the real income change for the project participants valued in domestic market prices. In project economic analysis, because the scope of the analysis differs, and because domestic market prices do not always reflect the scarcity value of project outputs and inputs, this yardstick is the real change in net national income for the project as a whole

valued in economic prices. Generally, the real change in net national income can be measured at two different price levels. These are the domestic price level, where all economic prices are expressed in their equivalent domestic market price level values (the domestic price numeraire), and the world price level, where all economic prices are expressed at their equivalent world market price level values (the world price numeraire). As long as consistency is maintained in a particular calculation across all project effects, project decisions will not be affected by whether the domestic price level or the world price level is used to express the numeraire.

Opportunity cost. The benefit foregone from not using a good or resource in its best alternative use. Opportunity cost measured at economic prices is the appropriate value to use in project economic analysis for valuing nonincremental outputs and incremental inputs.

Poverty impact ratio. The ratio, generally expressed as a percentage, of the net economic benefits accruing to the poor to the total net economic benefits of a project.

Private goods. Goods characterized by very high levels of subtractability and excludability. Subtractability means that one person's consumption of the good reduces the quantity available to others. Excludability means that the producer can restrict use of the product to those consumers who are willing to pay for it, while excluding those who do not meet this or other criteria. Private goods can be produced under private ownership or under public ownership. Except under special circumstances, for example, production in conditions of natural monopoly and where the government lacks the capacity to regulate, production of private goods increasingly is undertaken under private ownership.

Producer surplus. The excess of the revenue received by a producer of a commodity over the minimum amount they would be willing to accept to maintain the same level of supply.

Productive efficiency. Achievement of a specific level of output or objective using the most cost-effective means. Productive efficiency is a precondition for achieving the best allocation of resources among different uses.

Project alternatives. Technically feasible ways of achieving a project's objectives. Project alternatives can be defined in terms of different possible locations, technologies, scales, and timings. It can also refer to alternatives between physical investments, policy changes, and capacity building activities. Consideration of project alternatives, and selection of the best alternative, should precede the assessment of economic viability.

Project assistance coefficient (PAC). The ratio, generally expressed as a percentage, of the net benefits of a project or activity measured in financial prices to the net benefits of the project or activity measured in economic prices. See also Effective assistance ratio.

Public goods. Goods characterized by very low levels of subtractability and excludability, by contrast with Private goods above. Low subtractability implies that a good is available to all consumers at the same time, and consumption by one consumer does not use up or reduce the supply available for another consumer. Low excludability implies that if a good is provided to a consumer in a defined region then other consumers in that region cannot be easily excluded from consuming the same good. An example of a pure public good is national security, which is available to all citizens of a country simultaneously. Several other goods are quasi-public, having low levels of subtractability and excludability. Public goods are generally provided under public ownership, although several can be provided, through contract and regulation, under private ownership.

Real exchange rate. The price of foreign currency in terms of domestic currency where the rate of exchange is adjusted for the relative value of actual or expected domestic and international inflation.

Real prices. An alternative expression for constant prices. See Constant prices.

Relative prices. The future price value of an output or input relative to the price of another input or output, or to the prices of all goods and services in general. If all prices increase at the same rate, all prices will rise but relative prices will remain unchanged. If the price of an output or input increases either more slowly or faster than the prices of other goods in general, then there will be a relative price change.

Return to equity. The return on capital that will accrue to the owners of a project after all financial obligations to lenders, government, workers, and suppliers are met. It provides an indicator for assessing the incentive to investors to invest in a project compared with other uses of their funds.

Risk analysis. The analysis of project risks associated with the value of key project variables, and therefore the risk associated with the overall project result. Quantitative risk analysis considers the range of possible values for key variables, and the probability with which they may occur. Simultaneous and random variation within these ranges leads to a combined probability that the project will be unacceptable. When deciding on a particular project or a portfolio of projects, decision makers may take into account not only the expected scale of project net benefits but the risk that they will not be achieved.

Sensitivity analysis. The analysis of the possible effects of adverse changes on a project. Values of key variables are changed one at a time, or in combinations, to assess the extent to which the overall project result, measured by the economic net present value, would be affected. Where the project is shown to be sensitive to the value of a variable that is uncertain, that is, where relatively small and likely changes in a variable affect the overall project result, mitigating actions at the project, sector, or national level should be considered, or a pilot project implemented.

Sensitivity indicator. The ratio of the percentage change in NPV to the percentage change in a selected variable. A high value for the indicator indicates project sensitivity to the variable.

Shadow exchange rate. The economic price of foreign currency used in the economic valuation of goods and services. The shadow exchange rate can be calculated as the weighted average of the demand price and the supply price for foreign exchange. Alternatively, it can be estimated as the ratio of the value of all goods in an economy at domestic market prices to the value of all goods in an economy at their border price equivalent values. Generally the shadow exchange rate is greater than the official exchange rate, indicating that domestic purchasers place a higher value on foreign currency resources than is given by the official exchange rate.

Shadow exchange rate factor (SERF). The ratio of the economic price of foreign currency to its market price. Alternatively, the ratio of the shadow to the official exchange rate. This factor will generally be greater than 1. For economic analysis using the domestic price numeraire, the SERF is applied to all outputs and inputs, including labor and land, that have been valued at border price equivalent values, with project effects measured at domestic market price values left unadjusted. The inverse of the Standard conversion factor.

Shadow wage rate (SWR). The economic price of labor measured in the appropriate numeraire as the weighted average of its demand and supply price. For labor that is scarce, the SWR is

likely to be equal to or greater than the project wage. For labor that is not scarce, the SWR is likely to be less than the project wage. Where labor markets for labor that is not scarce are competitive, the SWR can be approximated by a market wage rate for casual unskilled labor in the relevant location, and adjusted to the appropriate numeraire.

Shadow wage rate factor (SWRF). The ratio of the shadow wage rate of a unit of a certain type of labor, measured in the appropriate numeraire, and the project wage for the same category of labor. Alternatively, the ratio of the economic and financial cost of labor. The SWRF can be used to convert the financial cost of labor into its economic cost.

Standard conversion factor (SCF). The ratio of the economic price value of all goods in an economy at their border price equivalent values to their domestic market price value. It represents the extent to which border price equivalent values, in general, are lower than domestic market price values. The SCF will generally be less than one. For economic analysis using the world price numeraire, it is applied to all project items valued at their domestic market price values to convert them to a border price equivalent value, while items valued at their border price equivalent value are left unadjusted. The SCF and SERF are the inverse of each other.

Subsidy. In the provision of utility services, the difference between average user charges and the average incremental cost of supply. A subsidy can be estimated in economic terms, using economic costs of supply, or in financial terms using financial costs of supply. The economic effects of a subsidy include the consequences of meeting them through generating funds elsewhere in the economy. Subsidies need explicit justification on efficiency grounds, or to ensure access to a selected number of basic goods.

Subtractability. The extent to which one user's consumption of a good or service reduces the ability of others to consume the good or service without an increase in production cost. See also Private goods and Public goods.

Supply price. The price at which project inputs are available, or the price at which an alternative to the project output is available.

Switching value. In Sensitivity analysis, the percentage change in a variable for the project decision to change, that is, for the ENPV to become zero or the EIRR to fall to the cut-off rate.

Traded inputs and outputs. Goods and services whose production or consumption affect a country's level of imports or exports. Project effects estimated in terms of traded goods and services can be measured directly through their Border price equivalent value the world price for the traded product for the country concerned, adjusted to the project location. Border prices for exported outputs can be adjusted to the project location by subtracting the economic cost of transport, distribution, handling, and processing for export measured at economic prices. Border prices for imported inputs can be adjusted by adding such costs to the project site. Outputs that substitute for imports can be adjusted by the difference in economic transport, distribution, and handling costs between the existing point of sale and the project site. Project inputs that reduce exports can be adjusted by the difference in economic domestic costs between the point of production and the project location.

Transactions costs. The costs, other than price, incurred in the process of exchanging goods and services. These costs include the costs of negotiating and enforcing contracts, and the costs of collecting charges for goods and services provided. The scale of economic and financial transactions costs can affect the market structure for a good.

Transfer payment. A payment made without receiving any good or service in return. Transfer payments transfer command over resources from one party to another without reducing or increasing the amount of resources available as a whole. Taxes, duties, and subsidies are examples of items that, in some circumstances, may be considered to be transfer payments.

Unit of Account. The currency used to express the economic value of project inputs and outputs. Generally the currency of the country in which the project is located will be used as the unit of account. Occasionally an international currency may be used as the unit of account. Economic values using the domestic price numeraire can be expressed in either a domestic or international currency. Similarly, economic values using the world price numeraire can be expressed in either a domestic or international currency.

User charge. A charge levied upon users for the services rendered or goods supplied by a project.

Willingness to accept (WTA). The minimum amount of compensation consumers would be willing to accept for foregoing units of consumption.

Willingness to pay (WTP). The maximum amount consumers are prepared to pay for a good or service. WTP can be estimated as the total area under a demand curve. Changes in WTP can occur when the demand curve itself shifts because of changes in income or in the prices of substitute goods.

Without and with project. The future situation without a proposed project and the future situation with the proposed project. The difference between these two situations constitutes the impact of the investment, policy change, or capacity building activities. To be distinguished from the situations before and after a project that do not allow for expected changes without the project.

World price. The price at which goods and services are available on the international market. The world price for a country is the border price, the price in foreign exchange at which imports are available at the port, railhead, or trucking point, or the price in foreign exchange received for exports at the port, railhead, or trucking point. Significant changes in relative world prices should be incorporated into the economic prices used in the analysis of projects.

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**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT
ANALYSIS AND PERFORMANCE ASSESSMENT IN THE PROJECT CYCLE:
FROM KEY CONCEPTS TO PRACTICE**

**MODULE III/PART 1:
OVERVIEW ON PROJECT ANALYSIS: KEY CONCEPTS AND TOOLS**

Summary of Key Topics and Expected Learning Outcomes

Key Topic	Expected Key Learning Outcomes
A) An Integrated Approach to Project Analysis: A “Roadmap” of Key Components	An improved operational understanding of the main elements of integrated project analysis, and a solid base for the subsequent (parts 2-6) and more in-depth concepts and tools on project analysis.

A) An Integrated Approach to Project Analysis: “Roadmap” of Key Components

1. Traditional approaches to the investment appraisals have tended to carry out a financial analysis of a project that is completely (or even partially) separate from its economic evaluation. The integrated project analysis is carried out using the domestic prices as a common numeraire for both the financial and economic appraisal. Identification should be made of the stakeholder impacts among parties. Since project costs and revenues are spread over time, uncertainty becomes an issue and is first addressed in the financial analysis. Its consequential effects are also assessed in the economic analysis. More importantly, deep knowledge of the policy and project “environment” should enable the project designer and analyst to identify the most relevant risks and design the most appropriate project-level interventions, supported by an effective monitoring and evaluation system, to minimize their adverse impacts. In practice, this assessment and interventions can become the most important aspect of a project design and appraisal process, and helping to realize the expected net benefits and results from the B-C analysis. The training program (TP) workshop for technical staff elaborates on the more important technical aspects of these components. The TP modules III-VI present the main components of how a public sector investment project (which is a “public” good) is evaluated through an integrated analysis in the context of the project cycle (see below).

2. Main Components: The main components of an integrated approach to project analysis are previewed below, and will be further developed and applied in subsequent modules.

a) Scope of Financial and Economic Analysis: objectives, procedures/steps, types of projects (directly and indirectly productive projects)

b) Project Framework: refers to the conceptual framework for evaluating different types of projects.

c) Financial Analysis: applied especially to public sector investments/entities (e.g., public water supply or telecommunication agencies), including the development of the financial cash-flow statement

d) Economic Analysis: rationale and underlying assumptions making the needed adjustments to valuation of costs and benefits to account for market distortions (such as "conversion factors")

e) Evaluation Criteria for Key Decisions: net present value, internal rate of return, and cost-effectiveness indicators are the principal criteria most commonly used.

f) Stakeholder and Distributional Impacts: who benefits/loses from the projects, and by how much;

g) Timing, Scale, and Length of "Project Life": these are key parameters which have important effects on project viability.

h) Institutional Assessment and Implementation Arrangements: formulation of the institutional roles, assessment of institutional capacities and requirements for more effective project implementation and sustainability

i) Risk Analysis and Management: Given uncertainty in many of the assumptions for quantifying benefits and costs (especially the former), the risk analysis and management become the most important aspects to achieve and sustain successful projects.

j) Project Monitoring and Post Evaluation: Most often, the weakest link in the project cycle, and provides vital information for the successful implementation and sustainability. However, there is a need for effective institutional, organizational arrangements, system, processes, and "culture" so that Management uses the information appropriately to improve implementation and sustainable impact.

3. The purpose of the economic analysis of projects is to bring about a better allocation of scarce public resources, leading to enhanced incomes for investment

or consumption. For a directly productive project, where the output is sold in a relatively competitive environment, choices are made within the economy to ensure that projects selected for investment meet a minimum standard for resource generation and to weed out those projects that do not. For an indirectly productive project, where the output is not sold in a competitive environment, choices are made within the project between different means of achieving the same objectives. Economic analysis is used to choose the means using the least resources for a given output. All resource inputs and outputs have an opportunity cost through which the extent and value of project items are estimated. Projects should be chosen where the resources will be used most effectively.

4. Economic viability depends upon the sustainability of project effects. Projects are sustainable if their net benefits or positive effects endure as expected throughout the life of the project. Sustainability is enhanced if environmental effects are internalized, and if financial returns provide an adequate incentive for project-related producers and consumers. Sustainable development is concerned also with distributional issues. When looking at the distribution of project effects and judging project social acceptability, it is important to **determine who benefits and who pays the costs**. An assessment of the capacity of the project to cope with an uncertain future is another measure. Sensitivity analysis is applied when testing projects for both productive and allocative efficiency.

5. The scope of economic analysis contained in this module seeks to address several issues in the economic analysis of public investment projects. Traditional practice focused on forecasting demand, choosing least-cost options, and, where possible, calculating the economic internal rate of return. The demand forecasts themselves depend upon project charges and affordability, which also affect financial incentives for different participants. At the same time, environmental effects can now be incorporated into the analysis, and policy dialogue requires a statement of the distribution of project effects. This broadening of the scope of economic analysis must be tailored to the particular project and the issues it generates.

6. In some cases, project preparation does not end with the decision to accept a project. In process projects (for example, community-driven projects, which have "subprojects"), design and appraisal are continual and go along with project implementation. This allows for greater participation by project beneficiaries in the design and testing of different options, and project implementation. Economic analysis can be applied at the outset of such projects to test the underlying rationale (using "prototype" models of illustrative subprojects). The principles of economic analysis contained in this module can be applied at key decision points in the process (e.g., irrigation subprojects, classrooms for schools).

7. The procedure for undertaking economic and financial analysis follows a sequence of interrelated steps:

- defining project objectives and economic rationale; (and use of log frame)
- forecasting effective demand for project outputs;
- choosing the least-cost design for meeting demand or the most cost-effective way of attaining the project objectives;
- determining whether financial and economic benefits exceed economic costs;
- assessing whether the project's net benefits will be sustainable throughout the life of the project;
- testing for risks associated with the project;
- identifying the distributional effects of the project, particularly on the poor; and
- enumerating the nonquantifiable effects of the project that may influence project design and the investment decision.

8. For “indirectly productive” projects, financial and economic analysis would comprise all of the above steps, except determining whether economic benefits exceed costs.

9. The Project Framework: The Project Framework provides a conceptual framework for analyzing both directly productive projects, for which a direct market demand exists for valuing project outputs, and indirectly productive projects, for which demand is derived from nonmarket goals. This framework can apply to both financial and economic analysis of projects. Such an integrated approach to project appraisal helps to prevent the misallocation of resources. It is particularly appropriate for projects where benefits are difficult to quantify and value. It provides a framework for identifying and comparing alternative means of achieving objectives.

10. In the Project Framework, a project is seen as being made up of a series of means-ends relationships, beginning with “input-output linkages”, then “output-purpose linkages” and, finally, “purpose-goal linkages”. For each foreseeable year of project implementation and operation, explicit verifiable targets are set at each level for each objective. The Project Framework (sometimes called “Results Framework”, and formerly, using a “LogFrame”) is thus both a design and appraisal tool and a means by which the project can be monitored for

- implementation efficiency testing the input-output linkage;
- operational effectiveness testing the input-output-purpose linkage; and
- impact significance input-output-purpose-goal linkage.

11. The Project Framework provides for the identification, quantification, and valuation of project objectives or targets for inputs, outputs, project effects, and sector impacts. See the attached Table 1 which shows a sample project results

framework, which focuses on project outcomes. The approach adopted for financial and economic analysis depends on the extent to which project inputs, outputs, effects, and impacts can be identified, quantified, and valued. For directly productive projects operating in a relatively competitive market environment, the economic effects of purpose level achievements can be measured mainly in terms of incremental income. On the other hand, in the case of indirectly productive projects, the best that can be expected is to be able to value project effects indirectly in terms of the project's impact on the market value of the product for which the project produces an intermediate input or of the cost of an alternative, in terms of cost savings.

12. The application of the Project Framework approach to project design provides an analytical framework for the financial, economic and social analysis of directly and indirectly productive projects. By enabling the application of the same criteria, the integrated framework ensures transparency and accountability, and promotes efficient and "viable" resource use.

Financial and Economic Analysis

13. The economic analysis of projects is similar in form to financial analysis: both appraise the "profit" of an investment. The concept of financial profit is not the same as economic profit. The financial analysis of a project estimates the profit accruing to the project-operating entity or to the project participants, whereas economic analysis measures the effect of the project on the national economy. For a project to be economically viable, it must be financially sustainable, as well as economically efficient. If a project is not financially sustainable, economic benefits will not be realized. Financial analysis and economic analysis are therefore two sides of the same coin and complementary, and therefore, form part of an integrated framework for project assessment. Given that there are revenue-earning public sector entities, it is especially relevant from the point of view of public expenditure analysis to apply the financial analysis tools to such investment projects (and entities).

14. Both types of analysis are conducted in monetary terms, the major difference lying in the definition and valuation of costs and benefits. In financial analysis all expenditures incurred under the project and revenues resulting from it are taken into account. Based on the relevant financial data, including prices (and assumptions on their future price levels), there will be a need to develop financial cashflow forecasts for the proposed project.

15. Economic analysis attempts to assess the overall impact of a project on improving the economic welfare of the citizens of the country concerned. It assesses a project in the context of the national economy, rather than for the project participants or the project entity that implements the project. The module will highlight the main differences of economic and financial analysis.

16. Rationale and Underlying Assumptions: Unlike the financial analysis, the market prices of the project inputs and outputs do not necessarily reflect the values of economic costs and benefits when there are distortions in the market price. The underlying principles of this economic or applied welfare economics are:

(a) The competitive, undistorted demand price for an incremental unit of a good measures its economic value to the demander and hence its economic benefit;

(b) The competitive, undistorted supply price for an incremental unit of a good measures its economic resource cost; and

(c) costs and benefits are added up with no regard to who are the gainers and losers

17. Project Decision and Evaluation Criteria: The preceding sections outlined the broad principles for identification, quantification, and valuation of project costs and benefits. The resulting streams of costs and benefits are used to make project choices. Essentially, there are three types of project decisions for which criteria are needed (applies to both financial and economic analysis):

- choice of the least-cost option for achieving the same benefits,
- choice of the best among project alternatives, and
- testing the economic viability of the best option.

18. The key concepts and criteria for assessing financial and economic viability and choosing among project options include:

- Choosing Between Alternatives When Benefits are Not Valued (e.g., social projects)

- Choosing Between Alternatives When Benefits are Valued: there are several criteria to be used:

(a) Benefit-Cost Ratio: The benefit-cost ratio compares the present value of the cost streams with the present value of the benefit streams, each discounted at the same rate. The comparison is made by forming the ratio of the present value of benefits to the present value of costs.

(b) Net Present Value: The net present value (NPV) also compares the present value of the cost streams with the present value of the benefit streams. However, it does so not as a ratio but by taking the cost stream away from the benefit stream to obtain the net benefit stream, which can then be discounted.

(c) Internal Rate of Return: The third criterion for summarizing the benefit and cost effects of a project alternative is the internal rate of return (IRR). The IRR represents the rate of return in economic prices that would be achieved on all expenditures of the project. The EIRR is calculated using the net benefit stream obtained by subtracting year by year all costs from all benefits. The EIRR is the rate of discount for which the present value of the net benefit stream becomes zero.

19. In addition, there are other criteria (less rigorous) which can be used to assess project viability, at least at an initial phase, to be complemented by more rigorous methods (e.g., payback period). However, caution needs to be exercised in using these alternative measures to avoid misleading conclusions.

20. The ranking of project alternatives according to the above 3 main criteria may differ. The overriding purpose of the economic analysis of projects is to increase the net output measured at economic prices in the national economy. The ENPV criterion measures this directly. The choice between project alternatives should be made using the ENPV criterion at the chosen rate of discount, usually assumed to be between 10 and 12 percent for most countries (discount rate to be confirmed for Azerbaijan).

21. Distribution of Project Benefits on Key Stakeholder Groups. Project sustainability is strongly affected by who benefits, and by how much, relative to who pays. In lending to the private sector for provision of public goods and services, for example, the distribution of project benefits among government, consumers, and private investors is a key input in negotiating build-own-operate-transfer agreements, in pricing services, and in the economic return to the national economy. This is an important part of the social analysis of a project, including gender concerns (adjusted to the culture of the country). One form of distributive analysis considers the distribution among operators, customers, and government, and how it is affected by different charge levels. This is pertinent to water supply, airport, and port projects, for example.

22. The identity of the groups that gain or lose, and the size of the gains and losses, can be documented during the project design and appraisal process. The analysis of distribution effects begins with analyzing financial benefits and costs. This first step disaggregates the financial impact of the project on the main beneficiary groups. Six groups can be considered:

- the owners of project operating entity,
- those working in the project,
- the government,
- the consumers of project outputs, and
- those providing material inputs to the project, and
- lenders to the project.

23. Another important distributional impact refers to the Project's fiscal impact, on Government's budget, including its revenues (direct, indirect), expenditures (capital/replacement, and recurrent), and disaggregating it for central and local governments.

24. Timing, Scale and Length of Project Life. During the process of formulating or assessing investment projects, a project's design and market conditions might need to change due to the findings of the analysis. The dynamics of a project can be represented as a series of options that include the time of initiation, the scale, and the termination date of the project. A project that can be postponed, that can be expanded with little additional cost, or that can be abandoned in part or in whole without major sacrifice is likely to have greater value, all other things being the same, than one that is a "now or never" decision. Accordingly, the timing, scale and length of a project directly affect the project's net present value, which provides a powerful tool for selecting projects that lead to a maximization of net economic benefits. The project analyst plays an important role in this exercise. This is another reason to have adequate "in-house" capacity, to help ensure that the process and content are adequate (if work actually performed by one of the research institutes).

25. Institutional Roles and Implementation Arrangements: This is one of the most important aspects in the formulation of a sound project proposal, to help ensure clarity in the institutional roles (central and local government levels), an analytical assessment of the institutional constraints and requirements to ensure the project is integrated within a sound institutional framework and timely and effective implementation. Careful attention need to be given to ensure institutional arrangements which can promote more sustainable programs.

Uncertainty: Risk and Sensitivity Analysis.

26. The FIRR/EIRR or FENPV/ENPV for public investment projects are calculated using the most likely values of the variables incorporated in the cost and benefit streams (to be covered below and in greater detail in a future Module). Future values are difficult to predict and there will always be some uncertainty about the project results. The effects of different values should be investigated. For directly productive projects, this means assessing the effect of possible changes on the FNPV/ENPV or FIRR/EIRR and, hence, on the project decision. For indirectly productive projects, this means assessing the effects of possible changes on a basic project parameter, such as the unit cost of service provision.

27. Sensitivity and risk analysis can be used to assess the effects of changes in project variables that are quantified. The results can be presented together with recommendations on what actions to take or which variables to monitor during implementation and operation. However, many projects involve institutional and social risks that cannot be readily quantified. A statement of such risks and any

mitigating actions should be included alongside the conclusions from the sensitivity and risk analysis.

28. Project Monitoring and Post Evaluation : Module V will focus entirely on this important component of the Integrated Project Analysis, which often is neglected. The framework for the M&E system, and relevant indicators should be the Project's "Results Framework" (or previously known as the "logical framework"). Once the project is approved, monitoring the progress of the project is important for managers in terms of time, cost, and performance. It requires the establishment of key milestones and their schedule for the project, and the system generates the relevant information to assess progress toward these milestone indicators ("provision of inputs and generation of outputs"). Post evaluation focuses on the "outcomes" and "impacts" of the project to determine if the economic and social goals of the project are achieved and what are the impacts on the stakeholders of the project after its implementation.

Key Questions/Discussion:

- Provide some examples of how you have applied some of the above principles of the components of the Integrated Project Analysis Framework, and some of the challenges in their consistent and effective implementation.
- What would you add/revise to this framework, and why, drawing on good practices in Azerbaijan?

Two Project Team exercises will include:

1) Case Study Team Exercise: see Handout for Day 12, Attachment 2, Item (1), revisit questions (i-iv)

2) Project Case Study Team Exercise: Item 2, questions iv-vii)

The following is a sample results framework for a project:

PDO	Project Outcome Indicators	Use of Project Outcome Information
Targeted urban companies practice environmentally safe manufacturing processes	80% of targeted urban companies receiving grants decrease their industrial pollution index	YR1-YR2 Gauge compliance of companies in grant program. YR3s determine if strategy for compliance needs to be changed YR5 feed into strategy for mainstreaming program and evaluation..
Intermediate Outcomes	Intermediate Outcome Indicators	Use of Intermediate Outcome Monitoring
Outcome 1: Targeted companies have skills to re-fit and maintain their manufacturing systems so that they are environmentally sound	Outcome 1: % of companies with x certified full time engineers	Outcome 1: YR1-YR5 : Low levels may flag either poor training program for certification or lack of company incentives to staff certified personnel –
Outcome 2: Compliance auditors in urban offices apply regulatory standards to their inspections	Outcome 2: Compliance checks meet regulatory standards	Outcome 2: FY03 – 05 : Flags possible payoffs or other problems in compliance. FY05 Will inform development of policy on oversight
Outcome 3: Companies in the urban areas are aware of the importance of environmental protection and how to be in compliance	Outcome 3: % of targeted companies aware of the importance of environmental protection % targeted companies requesting information on changes needed % of companies in the urban area aware of the new regulatory standards	Outcome 3: FY01-FY03: Determine message effectiveness and reach. Realign delivery mechanism, etc, as needed FY03 Feeds into broader programs and replication in other urban areas.

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**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT ANALYSIS
AND PERFORMANCE ASSESSMENT IN THE PROJECT CYCLE: FROM KEY
CONCEPTS TO PRACTICE**

**MODULE III/PART 2:
OVERVIEW ON PROJECT ANALYSIS: KEY CONCEPTS AND TOOLS (cont.)**

Summary of Key Topics and Expected Learning Outcomes

Key Topic	Expected Key Learning Outcomes
A) Identification and quantification of costs and benefits: Getting the flows right..... (includes the technical analysis and underlying benefit and cost assumptions)	A) To understand the key concepts and principles for identifying the relevant costs and benefit variables/flows, including the key roles of the technical and behavioral analysis/assumptions
B) Financial Analysis of a Project: Key Concepts and Tools	B) To understand the basic concepts and operational principles of financial analysis

A) Identification and Quantification of Costs and Benefits: Getting the Flows Right.....

1. Key Principles: There are four basic steps to analyzing the financial and economic viability of a project:

- identify the financial and economic costs and benefits;
- quantify the costs and benefits, as much as possible;
- value the costs and benefits (making appropriate adjustments); and
- compare the benefits with the costs.

The first two steps can generally be undertaken together. However, there will be some types of benefits, and sometimes costs, that cannot be quantified and valued for inclusion in the cost-benefit comparison. They will simply be stated alongside the results of the financial and economic analysis.

2. To identify project costs and benefits, the situation “without the project” should be compared with the situation “with the project”. The without-project situation is not the same as the before-project situation. The without-project situation can sometimes be represented by the present levels of productivity of the relevant resources. However,

present levels of productivity would frequently change without the project (e.g, due to soil degradation), and this should be taken into account in defining the without-project situation.

3. The comparison of without-project and with-project situations is at the heart of the estimation of net benefits for any project.

4. Most projects or subprojects are regarded as marginal in the sense that they will not have any effect upon the prices of project inputs and outputs, and will not have a substantial impact on the government budget or the exchange rate. Additional factors will have to be taken into account in the case of large projects that have a considerable impact on the regional, national, or international economy.

5. An important distinction in identifying project benefits and costs is that between non-incremental and incremental output, and between incremental and nonincremental inputs. The distinction is important because nonincremental and incremental effects are valued in different ways. It should therefore be used in the identification and quantification of project effects. The training module will devote attention to the approach in assessing the technical assumptions which underlie the identified and estimated costs and benefits.

Identification and Quantification of Benefits

6. For directly productive projects, the main benefits will be in the form of production that is sold. It is important to determine whether a projects output is incremental to existing supplies. If the project is small relative to the size of the market, it is likely that the project output will be fully incremental. This is the case for most outputs that are traded internationally. In the case of an output that is nontradeable, project supply can cause price effects where nonincremental output displaces sales from higher-cost producers.

7. The need for services from indirectly productive projects will depend on underlying factors, such as the rate of economic growth for freight transport or the rate of population growth for water and health services. A key feature of a sector or project analysis will be the phasing of investments to match the demand for services. For most indirectly productive projects, the type and extent of expected benefits can be quantified through such factors as time and cost savings, increased access, improved health, and so on, most of which have a productive effect, as well as a direct effect on welfare.

8. Some benefits of indirectly productive projects will not be quantifiable. For example, a newly sited bridge may not only reduce travel time for haulage trucks, but may also encourage greater social and political interaction by those on both sides of the river. A dam project may create a reservoir that not only can be used for fishing or recreational purposes, but also can have a scenic value for existing inhabitants. Such benefits should be stated along with an estimate of the number of beneficiaries.

9. Project benefits also include the extent of any consumer surplus. A project may lower the price of the output for all consumers. The savings to existing consumers, because of the difference between what they are willing to pay and what they will now have to pay, is not reflected in the financial effects. Consumer surplus can also arise when the output price is fixed by government below the demand price. The difference between the actual price and what consumers are willing to pay can be estimated through a price elasticity of demand, if available. If no direct estimate of the elasticity is available or can be estimated, then the likely magnitude of this form of benefit should be discussed.

Identification and Quantification of Costs

10. While several types of cost need to be included in the economic analysis of a project, some types of financial cost must be excluded. The underlying principle is that project costs comprise the difference in costs between the “without” and “with” project situation, that is, the extra use of resources necessary to achieve the corresponding benefits. The various cost components (in addition to the incremental “capital costs”) include the following items (and each item will be further elaborated upon):

(a) technical analysis/assessment: the fundamental parameter for the project begins with the assumed technical assumptions which underpin the project design, and from which other aspects will be designed in an integrated manner (e.g., technical needs to be integrated with budgetary, social, environmental aspects)

(b) system costs: refers to the matching investments needed to achieve expected benefits;

(c) sunk costs: refers to the use of facilities already in existence, and hence the costs of such facilities are sunk costs and should not be included in the project cost, provided their use in the project involves no opportunity cost.

(d) contingency costs: financial planning requires price and physical contingencies, where economic costs exclude the price contingencies.

(e) working capital: For purposes of economic analysis, only inventories that constitute real claims on the nation's resources should be included in the project economic costs. Other items of working capital reflect loan receipts and repayment flows, and are not included in the economic cost.

(f) transfer payments: Some of the items included in the financial costs of a project are not economic costs, as they do not increase or decrease the availability of real resources to the rest of the economy. These items will, however, affect the distribution of financial costs and benefits between the project entity and other entities, and among project beneficiaries. They are thus referred to as transfer payments, as they transfer command over resources from one party to another without reducing or increasing the amount of resources available as a whole.

(g) Depreciation: The financial accounts of agencies implementing a project will include provision for depreciation and amortization on the basis of prevailing accounting practice. However, for project economic analysis, the stream of real investment required to realize and maintain project benefits is included in the resource flow, together with a residual value for these assets at the time they are released from project use at the end of the projects life.

(h) Depletion Premium: Many projects involve the exploitation of a nonrenewable natural resource, such as oil, natural gas, or mineral deposits. The economic cost of using these natural resources must be included in the economic analysis.

(i) External Costs: In many projects, effects will go beyond the financial analysis from the point of view of the implementing agency. These external effects may include significant costs that must be accounted for in an economic analysis from the national perspective. For example, increased air and water pollution from an industrial plant may be measured and its effects on surrounding entities estimated.

Key Questions/Discussion:

- for each of the above concepts, there will be a key question/discussion point

(B) Financial Analysis of Projects: Key Concepts and Tools

11. The financial analysis of a project helps to determine the financial sustainability of the project and its overall success. One can also describe the financial analysis of a project as a process that entails the organization of specific data requirements in certain financial statements, followed by the application of certain investment criteria to these statements to determine the financial profitability or sustainability of the project.

12. Reasons for financial appraisal of a public sector project.

(a) The most important one is to ensure the availability of funds to finance the project through its investment and operating phases, including the cash-flow aspects (especially of a government parastatal). A project can have a high economic returns, but may fail due to inadequate funds to finance the operations of the project. Water supply projects are typical examples of projects that have large economic benefits due to the large value attached to water, and low financial receipts due to the low water tariffs (and the political pressures to keep them low). Other examples include projects from public transport and irrigation sectors, where user charges are often kept low. Hence, a financial appraisal for a government project can help determine whether Government can “pay its bills” throughout its life, and if not, how the shortfalls can be met.

(b) A second reason is related to understanding the distributional impacts of the project (e.g., to ascertain the net gain to the consumer, or the tax gain to the Government).

(c) To determine the public sector project's financial profitability, especially if privatization of the project is being considered.

13. Financial Cashflows: Key Concepts, Principles and Conventions. The financial cashflow statement of a project is a profile of the project's receipts and expenditures over time. The cashflow statement is organized in two main sections. The first section generally contains the expected financial receipts generated by the project, while the second one contains the expected financial expenditures incurred to generate the receipts of the project. The project's total expenditures, also known as total outflows, are subtracted from its receipts (inflows) to provide the net cashflow from the project (usually, every year, or could be more frequently).

14. Investment Plan: The financial cashflow statement of an investment plan is based on the information developed in the technical, demand, manpower, and financing modules. The investment plan consists of two sections: the first deals with the expenditure on new acquisitions, and the opportunity cost of existing assets, and the second section deals with the financing aspects of the proposed investment. If there are different scales and/or locations under consideration, corresponding investment plans for each scale and/or location should be formulated. Three aspects should be considered:

(a) Data and data breakdown. Once the schedules and deadlines are formulated, expenditures should be broken down by years of expected expenditure. The breakdown also enables the economic analysis (for adjusting prices of key items) and to better understand the cost structure and some of the beneficiaries.

(b) Opportunity cost of existing assets. If the project is an ongoing concern or a rehabilitation project where some of the project's old assets are integrated into the proposed facilities, the opportunity cost of these assets should be included in the cashflow statement together with the expenditure on new acquisitions. It is also important to distinguish between the opportunity cost and "sunk cost" of an asset.

(c) Investment financing. The second half of the investment plan shows the means and schedules of financing the investment expenditures, including sources of finance. Inclusion of certain data in the financing section will depend on whose perspective is being shown.

15. Operating Plan. The operating plan is developed on the basis of the data formulated and organized in the technical, demand (market), and manpower modules. It should include all cash receipts generated from the operations of the business and all operating expenditures. (and projected by year of operation). This operating plan needs to contain 5 parts: (a) adjustments of sales; (b) adjustment of purchases; (c) adjustments for changes in cash balance; (d) provision for working capital, which in turn, should: (i) account for working capital in the cashflow statement; (ii) include estimation of working capital requirements; (e) and estimation of income tax liability.

16. Cessation of Project operations. There is a need to reflect in the cashflow statement the residual value of an asset following “cessation” of a project (normally shown as an inflow the year after cessation).

17. Use of Consistent Prices in a Financial Appraisal. When conducting a financial appraisal of a project, it is necessary to develop price and cost projections over the life of the project. These prices are influenced by two forms of price changes which a project appraisal must consider: changes in relative prices and changes in the price level (or inflation). The underlying factors of these 2 price changes are different (e.g., supply and demand forces, and monetary supply factors vis-à-vis growth of goods and services, respectively). The analyst needs to make an appropriate judgment as to veracity of the forecasts of these price trends (usually made by other economists). To understand the impact of real price changes and inflation on the financial viability of a project and how they are incorporated in the analysis, the module will highlight the definition or derivation of various price variables employed in the analysis, including:

(a) Definition of Prices and price indices, including: (i) nominal prices (known as “current” prices); (ii) price level and index; (iii) changes in price (inflation); (iv) real prices (or “real” price, whereby the nominal price of an item is divided by the index of the price level at the same point in time; (v) changes in real prices; (vi) inflation-adjusted values

(b) Nominal interest rate: The most important feature for integrating expectations about the future rate of inflation or expected growth in general prices into the project evaluation is to ensure that such expectations are consistent with the projections of the nominal rate of interest. There are 3 components to the nominal interest rate: real interest rate; a risk factor; and an adjustment factor to reflect compensation for loss in purchasing power due to inflation.

(c) Expected (nominal) exchange rate: A key financial variable in any project using or producing tradeable goods is the market rate of the exchange between the domestic and foreign currency. There are methods to project this exchange rate, normally done by macroeconomists, and not project economists. The module will highlight some of the key principles to impart an “intuitive” understanding.

18. Incorporating Inflation in the Financial Analysis. Much of the published literature on project evaluation recommends the exclusion of inflation from the appraisal process. At best, these methods account only for projected changes in relative prices of inputs and outputs over the life of the project. However, experience with projects suffering from financial liquidity and solvency problems has demonstrated that inflation can be a critical factor in the success or failure of projects. It will be important to ensure economic and financial viability of a project by designing a project which reflects both changes in relative prices and changes in the rate of inflation. While the financial cashflows should be prepared in real prices, there is a need to make follow a procedure for incorporating inflation into the financial evaluation of a project in a consistent manner. The module will highlight 13 steps for doing this, to help ensure the proforma cash flow statements

correctly reflects in the impact of inflation on financial performance of the project. It is important that the discount rates used be real, not nominal, variables.

19. One issue is whether to prepare a detailed financial cashflow in case of a social sector project. The response is yes, even with a change in the benefit stream. The real financial prices for the input and output variables developed above are used as the base on which to estimate the economic values for the benefits and costs of the project. Once these economic costs and benefits are estimated, an economic resource flow statement is constructed. The structure of the statement should be similar to that of the financial cashflow statement. The difference between the two statements is analyzed to determine the stakeholders' impacts of the project.

20. Financial Analysis from Different Points of View. For most projects that are directly undertaken by the government, or involve some government intervention in the form of grants, loans or subsidies, there are several stakeholders that would like to determine the impact of the project on them. Stakeholder are defined broadly to include all those affected by the project. It is important to conduct the analysis from the points of view of the different important stakeholders to ensure the project's sustainability and success. Even one powerful stakeholder who is adversely affected by the project maybe be able to derail the entire project. The above section outlines the variables that are generally included in the cashflow statement while discussing how they are presented. Some variables will be relevant to the analysis from the point of view of one stakeholder and not from that of another. The most commonly financial analysis for government and government-related projects are from the following viewpoints (with further elaboration during the module):

- Owner's point of view: refers to a private investor receiving support from government or a government department carrying out a project, and should include all receipts and expenditures related to the project in the cashflow statement, to determine any net gain/loss.
- Total investment point of view (bankers) : it disregards any distinction in the sources of finance, and aims to determine if the net cashflow is sufficient to cover interest and loan repayments.
- Government point of view: this perspective focuses on the budgetary point of view to ensure the relevant department has enough resources to finance the project, and to ensure the cash flow statement from government perspective will reflect relevant transactions (credit, subsidies, or grants).
- Other perspectives should be considered, as relevant, such as competitors, downstream processors, etc, to gauge the nature and extent of support and /or resistance to the project.

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**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT ANALYSIS AND
PERFORMANCE ASSESSMENT IN THE PROJECT LIFE-CYCLE:
FROM KEY CONCEPTS TO PRACTICE**

**MODULE III/PART 3:
OVERVIEW ON PROJECT ANALYSIS: KEY CONCEPTS AND TOOLS (cont.)**

Overview of Key Topics and Expected Learning Outcomes

Key Topic	Expected Key Learning Outcomes
A) Valuation of economic costs and benefits (including adjusting prices for tradeable and non-tradeable goods): Getting the Prices Right.....	A) To enhance understanding of the concepts and principles for estimating values for costs and benefits, and why/how to "get the prices right"
B) Valuing Environmental Externalities: Reflecting "true" costs and benefits.....	B) To understand the basic concepts and operational principles for assessing environmental externalities

(A) Valuation of Economic Costs and Benefits: Getting the Prices Right.....

21. Once the costs and benefits of a project have been identified and quantified, they should be valued according to a common criteria. This allows them to be aggregated and compared. Decisions by producers and users of project output will be based on financial prices. However, to evaluate the consequences of their decisions for the national economy, costs and benefits need to be valued at economic prices that represent their value from the national economic perspective.

22. Costs and benefits should be valued in constant prices, that is, in terms of the price level prevailing in the year in which the project is appraised. Any expected change in the general price level can be ignored. However, if it is expected that there will be significant changes in relative prices over the life of the project, for example that the output of a food production project will decline in value relative to prices in general, then this relative price change must be incorporated in the valuation of the cost or benefit item.

23. In an economic analysis, market prices are adjusted to account for the effects of government intervention and market structure. The result is shadow prices. This module will further elaborate the conceptual principles for valuing (through shadow prices) incremental and nonincremental outputs and inputs for tradeable and non-tradeable goods (see Table 1 for a summary).

Table 1: Basis of Economic Valuation of Project Outputs and Inputs

	Incremental	Nonincremental
Outputs	Adjusted demand price or willingness to pay	Adjusted supply price or opportunity cost
Inputs	Adjusted supply price or opportunity cost	Adjusted demand price or willingness to pay

24. Role of World Prices: One approach to estimating the value of outputs and inputs from the national point of view uses world market prices. The extra outputs and demand for inputs created by a project will have a direct or indirect effect on international trade. World market prices are also subject to national and international policy effects and, in some cases, to monopolized market structures. However, trade represents an alternative to domestic production for most goods and services. Hence, world prices can be used to measure the economic value of project inputs and outputs from the national perspective. These principles will be further elaborated upon in the module. Table 2 summarizes the basis for valuing main project outputs and inputs.

Table 2: Valuation of Main Project Outputs and Inputs

	Category	Project Impact	Basis of Economic Price	Basis of Valuation
Output	Tradable	Incremental	Demand price	WMP (=FOB)
		Nonincremental	Supply price	WMP (=CIF)
	Nontradeable	Incremental	Demand price	DMP + CT
		Nonincremental	Supply price	DMP - PT - OS
Input	Tradable	Incremental	Supply price	WMP (=CIF)
		Nonincremental	Demand price	WMP (=FOB)
	Nontradeable	Incremental	Supply price	DMP - PT - OS
		Nonincremental	Demand price	DMP + CT

CIF - Cost insurance freight OS - Operating surplus
CT - Net consumption tax PT - Net production tax
DMP - Domestic market price WMP - World market price
FOB - Free on board

Economic Prices of Traded Goods and Services

25. Project effects estimated in terms of traded goods and services can be measured directly through their border price equivalent value the world price for the traded product for the country concerned, adjusted to the project location. The world price for the country is the border price, the price in foreign exchange paid for imports inclusive of insurance and freight at the port or, for landlocked countries, at the railhead or trucking point; or the world price received for exports at the port, railhead, or trucking point. Border prices for exported outputs can be adjusted to the project location by subtracting the cost of transport, distribution, handling, and processing for export measured at economic prices. Border prices for imported inputs have to be adjusted by adding such costs to the project site. Outputs that substitute for imports should be adjusted by the difference in transport, distribution, and handling costs between the existing point of sale and the

project site. Project inputs that reduce exports should be adjusted by the difference in costs between the point of production and the project location. In each case, the traded good or service is estimated through its border price equivalent value (BPEV), adjusting for the economic cost of local costs.

Table 3: Border Price Equivalent Value Adjustments

Outputs Exported Imported	FOB price CIF price	less PTDH from project plus TDH to market less TDH market to project
Inputs Imported Export Substitutes	CIF price FOB price	plus TDH to project less PTDH production to port plus PTDH production to project

CIF - Cost insurance freight
 FOB - Free on board
 PTDH - Processing, transport, distribution, handling in economic prices
 TDH - Transport, distribution, handling in economic prices

Economic Prices of Nontraded Goods and Services

26. Many Governments, including Azerbaijan, tend to be increasing expenditures in programs where the project outputs are nontraded. There are steps to make the relevant calculation. While public utility, social sector, and environmental projects produce effects that are nontraded, many directly productive projects also have nontraded effects. Some will be marketed, such as port services or urban water and sanitation supplies. This module will elaborate on the basis for estimating economic prices for nontraded goods and services (used as project inputs or resulting project outputs).

27. Economic Price of Labor: Labor is an important component of any project, and will require careful treatment. The module will outline some guiding concepts to quantify economic labor costs

28. The economic price of land: All projects involve some use of land. Even where land has no financial cost, its economic value should be estimated and included in the calculation of economic viability. The module will outline some guiding concepts and principles on how to treat/cost land.

Bringing Economic Prices to a Common Base:

29. If the above principles are followed in estimating economic benefits and costs, then most project effects will be valued at their border price equivalent value. This will apply for traded goods and services, for the opportunity cost of surplus labor, for the opportunity cost of land, and indirectly for nontraded inputs with increasing supply. However, other items, such as the opportunity cost of scarce labor, nontraded products in fixed supply, and especially nontraded outputs, will be valued initially in domestic market price values. These two forms of valuation need to be brought to a common base so that they can be aggregated and compared.

30. The aggregation of costs and benefits requires a unit of account to be established in terms of the currency and the price level in which the analysis is to be conducted. Economic analysis can

be undertaken in the currency of the borrowing country or a foreign currency, and at the domestic or the world price level. It is suggested that the economic analysis be undertaken in the currency of the borrowing country.

31. **Conversion Factors:** Conversion factors can be calculated and used when testing the economic viability of a project. A conversion factor is the ratio between the economic price value and the financial value for a project output or input. This ratio can be applied to the constant price financial values in project analysis to derive the corresponding economic values. Conversion factors can be calculated for

- specific project items, for example, the main outputs and inputs;
- groups of typical items, such as, petrochemicals or grains; and
- the economy as a whole, as in the SERF or standard conversion factor.

32. Specific conversion factors can be calculated to convert financial values into economic values using the domestic market price numeraire or the world market price numeraire. The training session will review in greater detail various aspects of using and estimating different types of conversion factors, and their application to economic analysis.

Key Questions/Discussion:

- Why and when does the project analyst need to make price adjustments to key inputs and outputs for the economic analysis?
- What are some example of distorted input and output prices in Azerbaijan?

(B) Valuing Economic Externalities: Key Concepts and Approaches

33. Sometimes an entity uses resources for a project without paying for them. For example, a factory may emit pollution into the air, dirtying the surrounding building, and therefore increasing their maintenance costs. A new irrigation project may lead to a reduced fish catch, or the spread of water born diseases. Or a project may generate project benefits for a particular group such that the project entity cannot extract a direct gain. These side effects of projects, known as “externalities”, are real costs and benefits that should be included in the economic analysis as project costs or as project benefits. Externalities are easier to conceptualize than to measure. This can be illustrated in a supply curve, showing the difference between the marginal private costs vs. the marginal social costs, arising from a negative externalities.

34. Environmental externalities are a particular form of externalities that economic analysis should take into account. They should be identified and quantified where possible and included in the economic analysis as project costs (as might be the case for a decreased fish catch or increased illness) or benefits (as might be the case with the reduction in pollution of coastal areas). After assigning a monetary value to the costs and benefits, the analyst should treat them as any other cost and benefit and enter them into the cash flow tables.

35. Project analysts need to consider 2 key questions regarding environmental externalities: (a) they must determine the “boundary” of the economic analysis, or how far to look for environmental impacts; (b) they must determine the time horizon of the environmental impact. A key step in assessing the costs or benefits of environmental impacts is to determine the functional relationship between the project and the environmental impact (this relationship can be illustrated in a diagram). The choice of valuation technique depends on the impact to be valued: data, time,

financial resources available for the analysis, and the sociocultural setting of the valuation exercise. Frequently, the simplest techniques are usually the most useful: those that rely on actual changes in production, on replacement costs, or prevention expenditures, or on information about impacts on human health or the cost of illness. All of these factors deal with physical changes that can be valued using market prices and are included in the objective set of techniques.

36. The value of environmental effects can be included in the economic analysis of projects. Although it is not possible to put monetary values on all types of environmental effects, such costs and benefits should be as explicit as possible so as to inform policymakers and citizens. For some projects, beneficial environmental effects will be the main objective of the project and should be valued. For other projects, environmental benefits or environmental costs should be valued as far as possible, and incorporated into the economic analysis, together with related mitigation or monitoring costs.

37. Four broad approaches can be used to value environmental costs and benefits: market prices, costs of replacement, surrogate markets, and surveys. Transference modeling, that is, inferring input-output relationships and values from studies and experiences elsewhere, can be used to take account of environmental effects. In all cases, environmental costs and benefits based on financial values are in turn converted to economic values. These economic values need to be expressed using the same numeraire as other project items. These approaches will be elaborated upon in the module presentation and discussion, along with some examples of actual project cases.

38. Governments may seek to internalize environmental costs and benefits into financial prices. The main advantages of market-based instruments is that they directly alter incentives through the price mechanism. They also tend to have positive fiscal effects because they involve a reduction in environmentally damaging subsidies and increase environmentally improving taxation.

Key Questions/Discussion:

- What are some examples of projects in Azerbaijan where inclusion of proper environmental analysis have (or could have) changed the fundamental design and/or decision on a project ? (your intuitive judgments are welcomed).
- What are steps to strengthen the environmental assessment capacities of your Ministry/sector agency?

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**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT ANALYSIS
AND PERFORMANCE ASSESSMENT IN THE PROJECT LIFE-CYCLE:
FROM KEY CONCEPTS TO PRACTICE**

**MODULE III/PART 4:
OVERVIEW ON PROJECT ANALYSIS: KEY CONCEPTS AND TOOLS (cont.)**

Key Topic	Expected Key Learning Outcomes
A) Economic Viability: A Suggestive Procedure	A) To understand the application of operational steps in estimating economic viability
B) Project Evaluation Criteria: (for Financial and Economic Analysis)..Making the "Right" Recommendation/Decision..... (1) Time Dimension/Discount Rate (2) for Viability Decisions (3) for Assessing Alternatives (various methods, with an attachment on the least-cost analysis)	B) Acquired a better understanding of the key concepts and appropriate operational procedures and applications of the project evaluation criteria, including the role of time dimension (discounting & compounding), viability decisions and assessing mutually exclusive alternatives (using alternative and complementary methodologies).
C) Some Applications: (a) Example of Irrigation Project (EIRR) (b) Exercise # 2: Discounting	C) To better understand the project evaluation criteria through some applications/exercises

(A) Economic Viability: A Suggested Procedure

1. In a project context, the methods outlined above need to be applied in a cost-effective manner. The focus must be placed on those economic prices that are important for testing the economic viability of the specific project. Economic price calculations can be carried out in more or less detail. The following iterative procedure can be used to determine what level of detail to pursue:

First Iteration

- i. Choose the numeraire and unit of account for the analysis.

- ii. Obtain the shadow exchange rate factor (SERF) or the standard conversion factor.
 - iii. Revalue the main outputs and inputs having a trade effect at border price equivalent values. Use a simple SERF or the standard conversion factor estimate to bring traded/nontraded items to a common basis.
 - iv. Obtain willingness to pay or other valuations for incremental nontraded outputs.
 - v. Identify any nontraded inputs that are crucial to the project and for which financial prices incorporate a significant tax or, more likely, subsidy element. There is likely to be only one or none for any project. Calculate a specific conversion factor for such an item.
 - vi. Estimate a shadow wage rate factor (SWRF) for project labor.
 - vii. Estimate the economic value of land using the SERF or the standard conversion factor.
 - viii. Calculate the project net present value (NPV) and internal rate of return (IRR) using:
 - o border price equivalent values for the main traded outputs and inputs;
 - o a willingness to pay or other estimate for incremental nontraded outputs;
 - o a specific conversion factor for any major, subsidized nontraded input;
 - o a SWRF for project labor adjusted by the standard conversion factor, if necessary; and
 - o a SERF estimate for other trade items, or a standard conversion factor estimate for other nontraded items.
 - ix. Test the sensitivity of the results to the SERF or the standard conversion factor value used, and the SWRFs used.
 - x. If the project or subproject is not marginal, and if the result is not sensitive to the national parameter estimates used, present the results of the economic viability tests.
2. If the project or subproject is marginal, or if the results are sensitive to the national parameter estimates used, proceed to the second iteration:

Second Iteration

- i. Estimate specific conversion factors for other nontraded inputs, labor, and land. Sometimes these can be taken from studies of national parameters carried out at the national level.
- ii. Re-estimate the NPV and IRR of the project or subproject.
- iii. Present the results of the tests of economic viability

B. Project Evaluation Criteria: Key Concepts and Guidelines

3. Time Dimension of a Project: Importance of Compounding and Discounting: The time dimension of a project's net cashflows and net economic benefits can be captured by expressing the values in terms of either future or present values. When moving forward in time to compute future values, analysts must allow for the compounding of interest rates. On the other hand, when bringing future values back to the present for

comparison purposes, it is necessary to discount them. Discounting is just the inverse of compounding. The module will elaborate on these key concepts, as well as present their respective formulas.

4. Choice of a Discount Rate: The discount rate is a key variable in applying investment criteria for project selection. Its correct choice is critical given the fact that a small variation in its value may significantly alter the results of the analysis and affect the final choice of a project. The rate of discount, in simple terms, is the cost of funds that are invested in the project. When economic analysis is applied, the relevant cost of funds is the social discount rate or the economic opportunity cost of capital to the country. There are different approaches for estimating a discount rate for economic analysis. One guide for estimating the social discount rate is the weighted average of the costs of funds from the three sources: rate of return on postponed investments, the rate of interest on domestic savings, and the marginal cost of additional foreign capital inflows. When a country faces a budget constraint, it is common practice to use a higher discount rate to determine project viability decisions. These budgetary situations highlight the urgency for looking for viable projects with higher rates of return. Equally, a Government budget surplus (which may be short-lived), and/or readily available foreign financing, is not an excuse to accept projects with lower rates of return (or lower discount rates). Efforts should be made to design and select projects with high rates of return and favorable social impacts on the country.

Project Decisions:

5. Reliability of the NPV Criteria. The financial attractiveness of a project is determined by the net present value (NPV) of its incremental cashflows while its economic desirability is measured by the NPV of its incremental net economic benefits. The NPV criterion is widely accepted by accountants, financial analysts, and economist as the only one that yields correct project choices in all circumstances. However, some analysts frequently rely on other criteria, such as the project's internal rate of return, its benefit-cost ratio, debt service capacity ratio, and payback period. Nevertheless, the NPV criterion is shown to be the most reliable one.

6. The preceding sections outlined the principles for identification, quantification, and valuation of project costs and benefits. The resulting streams of costs and benefits are used to make project choices. Essentially, there are three types of project decisions for which criteria are needed:

- choice of the least-cost option for achieving the same benefits,
- choice of the best among project alternatives, and
- testing the economic viability of the best option.

7. The first type of decision occurs when benefits cannot be valued for comparison with project costs. The least-cost option will be further elaborated upon during the module presentation/discussion. The purpose of this option is to achieve the same benefit effect at the lowest cost. The second type of decision occurs at the early stages

in all projects, when choices are being made about project location, scale, size, and other features of project design. Costs and, to some extent, benefits may differ between mutually exclusive alternatives. The purpose is to choose the best alternative from the point of view of the national economy. The third type of decision is the basis for agreeing to fund a project or not. The best project alternative may not be economically viable. A test is needed of the economic viability of the best alternative for a project, in short, whether a proposed project is acceptable for investment or not.

8. To make these decisions, all cost and benefit streams are discounted to present value. Present costs and benefits are accorded a larger weight than those in the future. Moreover, the weights on future costs and benefits are treated as decreasing at a constant rate each year. To determine the least-cost option or to compare project alternatives, the same discount rate should be applied to the various cost and benefit streams. For this purpose, most lending international lending institutions use a discount rate between 10 and 12 percent. The same discount rate should be used to determine if a project is economically viable. In choosing the best alternative or testing economic viability, where costs and benefits are measured in economic prices, this discount rate for decision-making purposes should be regarded as the economic discount rate relevant for economic prices.

9. The module will elaborate the criteria for choosing between alternatives under 2 different situations: when benefits are not valued and when the benefits are valued.

10. Testing the Economic Viability of the Best Alternative: The best project alternative may not be economically viable. A test of viability needs to be applied to the chosen alternative, and to any subprojects within it. At a discount rate within a given range, the two main criteria can be used as follows:

- *Net Present Value:* the discounted value of economic net benefits should be positive.
Criterion: Accept all independent projects and subprojects for which the ENPV is greater than 0.
- *Economic Internal Rate of Return:* The economic internal rate of return on resources should exceed that on the next best alternative project.
Criterion: Accept all independent projects and subprojects for which the EIRR is greater than the chosen discount rate.

11. These two criteria are equivalent, although the NPV criteria is more reliable. They will lead to the same acceptance and rejection of independent projects and subprojects.

12. In summary, there are six alternative project criteria to judge if an investment project is financially and economically viable. Below is a brief definition of each. The module will elaborate briefly on the strengths and weaknesses of each, showing the superiority of using the NPV criteria.

(a) NPV: It is the algebraic sum of the present values of the incremental expected positive and negative net cashflows over a project's anticipated lifetime. If this sum is equal to zero, then investors can expect to recover their incremental investment and to earn a rate of return on their capital equal to the private discount rate used to compute the present values. There are 3 decision rules when using the NPV criterion (to be discussed in the module session).

(b) IRR: The internal rate of return is the discount rate that sets the NPV=0. Accordingly, investors recover their invested capital and earn a rate of return equal to the discount rate, which is the IRR. There are six problems when using the IRR criterion (these will be reviewed in the module).

(c) Benefit-cost ratio: Known as the profitability index, is the ratio of the NPV of the net cash inflows (or economic benefits) to the NPV of the next cash outflows (or economic costs), or:

$$\text{BCR} = \frac{\text{NPV of the net cash inflows (or economic benefits)}}{\text{NPV of net cash outflows (or economic costs)}}$$

(d) Pay-out or pay-back period: It measures the number of years it will take for the undiscounted net benefits (positive net cashflows) to repay the investment. It places a premium on projects which have a quick pay-back period. But, it can give misleading results for cases of investments with a long life.

(e) Debt service ratio: The debt service ratio is a key factor in determining the ability of a project to pay its operating expenses and to meet its debt servicing obligations.

(f) Cost-effectiveness Analysis: This is an appraisal technique and criterion often used for social projects and programs, where it is difficult to quantify benefits in monetary terms, or when the benefits of alternative investments are similar. The present values of costs have to be computed. (see Attachment 1 for further details and example).

Key Questions/Discussion:

- What is the most reliable criterion for making investment decisions, and why?
- Share some lessons from using the above investment criteria, especially where using the appropriate criteria.

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**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT
ANALYSIS AND PERFORMANCE ASSESSMENT IN THE PROJECT CYCLE:
FROM KEY CONCEPTS TO PRACTICE**

**MODULE III/PART 5:
OVERVIEW ON PROJECT ANALYSIS: KEY CONCEPTS AND TOOLS (cont.)**

Overview of Key Topics and Expected Learning Outcomes

Key Topic	Expected Key Learning Outcomes
A) Distribution of Benefits by Stakeholders: Key Concepts and Tools...Who are Winners and Losers? (+ Project Team Exercise #3)	A) An enhanced understanding and approach to carrying out the distributional analysis of project analysis
B) Impact on Poverty Reduction (including a linkage with the SPPRED framework and experiences) (+ Project Team Exercise #4)	B) An improved understanding of key concepts and tools for carrying out the poverty assessment of projects (with strong linkage to the SPPRED framework, strategies, and emerging results)

(A) Distribution of Project Benefits/Stakeholder Analysis: Key Concepts and Examples (Who benefits and loses.....)

1. Post-evaluation experience shows that, unless there is a solid grasp of the distributional effects of a project, there is high risk that it will not be implemented effectively and/or the forecasted benefits will not be sustained. The costs and benefits of a project are shared among different groups. There are several ways in which the distribution of project effects can be analyzed. First, the project effects can be allocated among different project participants, usually suppliers, consumers, owners, lenders, workers or producers, and the government representing the rest of the economy. It is usual to expect owners, lenders, workers or producers, and the government all to share in the net project effects. Frequently, consumers and suppliers also do. Second, for projects that involve foreign investors, lenders, management, and labor, the distribution of net project effects between nationals and foreigners can be demonstrated. Third, project effects can be allocated between the public and the private sectors. This may be particularly important for infrastructure developments where public sector expenditures are made in support of private sector operations. Fourth, the net project effects can be allocated not only among different project participants but among participants with different income levels. Fifth, net project effects can be allocated according to whether the project net benefits are likely to be consumed

or saved. Finally, costs and benefits can be allocated among different countries participating in subregional projects.

2. Considerable effort was expended in the past to include the distribution of net benefits between savings and investment into project analysis. The purpose was to identify and give priority to projects that would enhance savings, and therefore investment in the economy, by applying a premium to project effects resulting in extra savings. Considerable effort was also expended to include the distribution of net benefits by income group into project analysis. The purpose here was to identify and give priority to projects that would enhance incomes for lower income groups, by applying a different weight to the incremental incomes of different groups. However, both forms of analysis depend on specifying premium that are essentially subjective and open to disagreement. In addition, enhancing savings can lead to priorities that contradict the enhancement of incomes for lower income groups, and both savings and the distribution of income can be affected more directly by policy changes at the national level rather than through the net effects of new investment projects.

3. To maintain a “neutral” stance, one option is to follow a practice of the analyst providing a statement of the distribution of project effects be given, without applying any premium to either incomes that are saved or to incomes accruing to particular income groups. There are three reasons for providing such a statement. The first is to assess whether the likely distribution of project effects corresponds with the objectives of the project. The second is to bring the financial and economic analysis of projects together to ensure that the consequences for the economic benefits of projects of changes in financial arrangements are assessed. The third is to assess the likely impact of policy changes on the distribution of project effects.

4. During the training module special attention will be given to: (a) outlining practical approaches to assessing project impact on poverty reduction, and how project design alternatives can be used to enhance poverty reduction effects of the project; (b) better understanding the social and political impacts of projects, especially which play a strategic role; and (c) illustrating the application of the above concepts and relevant tools of analysis to better assess the distributional and poverty effects of a project.

Key Question/Discussion:

- Why is it important to include a sound distributional and stakeholder analysis as part of the overall project analysis?
- Can you share any examples where a sound distributional/stakeholder analysis modified the overall result of the Project design and/or “go/no-go” decision?.

Project Team Exercises:

Exercise: Distribution of Benefits

(B) Impact on Poverty Reduction

5. Poverty reduction is the most formidable development challenge. To reduce poverty some projects target the poor directly, but most aim at economic growth, benefiting the poor indirectly as well as directly. This appendix shows how to trace the economic impact of growth projects on the poor.

6. The poverty-reducing impact of a project is traced by evaluating the expected distribution of net economic benefits to different groups. With financial prices determining who controls net economic benefits, the first step is to estimate the present value of net financial benefits by participating group. Next, the difference between net benefits by group at economic and financial prices is added to net financial benefits by group to give the distribution of net economic benefits by group. Finally, the net economic benefits accrue to the poor according to the proportion of each group that is poor. A poverty impact ratio expressing the proportion of net economic benefits accruing to the poor can be calculated by comparing net economic benefits to the poor with net economic benefits to the project as a whole.¹

7. This can be illustrated through a publicly funded water utility project selling piped water. The water supply project serves a small rural town. All capital equipment is imported, subject to an import tariff. Labor and electricity account for total operating & maintenance (O&M) costs. Wages are controlled by a minimum wage law, with the economic price of labor being a proportion of the minimum wage. Electricity is subject to a sales tax and a production tax. The water utility is not subject to income tax. All financial and economic values are given in constant year-of-appraisal prices and in present value terms. Tradables are valued at border prices at the domestic price level and nontradeables at domestic market prices. Net financial benefits (NFB) and net economic benefits (NEB) are expressed in domestic currency (rupees).

8. For the purpose of poverty impact analysis, project beneficiaries are divided into three national groups: the poor, the nonpoor, and the government. Net economic benefits by group are distributed between the poor and the nonpoor, according to the extent that they benefit the poor. In the case of net economic benefits to the government, it is assumed that 50 percent potentially benefit the poor.

9. The present value of project capital costs is \$25 million at border prices. Import duties are 30 percent, the official exchange rate (OER) is Rs20/\$ and the SERF is 1.20. The market value of electricity is Rs300 million, including a production tax of 20 percent and there is a sales tax of 10 percent. Wages amount to Rs80 million and the supply price of labor is 70 percent of the average wage rate. Water sales are Rs1,000 million. The quantity of water illegally consumed is 20

percent of revenue water. The economic cost of water consumed and paid for is Rs1,500 million.

10. The NFB is equal to sales revenue of Rs1,000 million minus capital costs of Rs650 million (\$25 million multiplied by the OER of Rs20/\$ plus the import tariff of 30 percent), electricity costs of Rs330 million (the market value of electricity plus sales tax), and labor costs of Rs80 million. The NFB of the project shows a loss of Rs60 million in present value (see Table 1).

Table 1. Poverty Impact Ratio for Water Supply Project (PVs at 12%)

A. Distribution of Project Effects	Financial Returns	Economic Returns	Difference	Consumers	Government/Economy	Labor
Output	1,000	1,800	800	800	150-100	
Capital costs	650	600	50		80	24
Electricity	330	250	80			24
Labor	80	56	24		130	
Total	-60	894	954	800		
B. Poverty Impact Ratio			Consumers	Government/Economy	Labor	Total
Beneficiaries						
NEB-NFB			800	130	24	954
Financial return				-60		-60
Benefits			800	70	24	894
Proportion of poor			0.25	0.50	0.333	243
Benefits to poor			200	35	8	
Poverty Impact Ratio:	243/894 =	0.271 or 27 %				

11. The NEB of the project expressed at the domestic price level is Rs894 million. It is equal to gross benefits of Rs1,800 million (the cost of water increased by the proportion of water consumed but not paid for) minus capital

costs of Rs600 million (capital imports converted to local currency at the OER multiplied by the shadow exchange rate factor), electricity costs of Rs250 million (market value of electricity less production tax), and labor costs of Rs56 million (wages valued at the supply price of labor).

12. The difference between the NEB and the NFB is distributed by group. The difference of Rs954 million is made up of (i) consumer surplus of Rs800 million (the difference between the without project cost of water and the with project expenditure on piped water, plus the value of water consumed but not paid for); (ii) government tax revenues from capital imports of Rs150 million; (iii) government tax revenue from electricity production of Rs80 million (production tax of Rs50 million plus sales tax of Rs30 million); (iv) benefits to labor of Rs24 million (wages of Rs80 million less opportunity cost of Rs56 million); and (v) loss in the economy to government of Rs100 million through overvaluation of the exchange rate.

13. The NEB-NFB difference is added to the NFB by group to arrive at the distribution of the NEB by group. The government's financial losses from investing in the water supply project amount to Rs60 million. Adding Rs130 million in taxes results in a net economic benefit to the government of Rs70 million. Consumers gain Rs800 million in consumer surplus and laborers earn Rs24 million more than they would have without the project. The NEB by group is Rs894 million.

14. The final step is to distribute the NEB by group between the poor and the nonpoor. One quarter of consumer surplus and one third of surplus for labor go to those living below the poverty line. Fifty percent of the return to the government is assumed to benefit the poor. The NEB accruing to the poor is therefore Rs243 million. The PIR of the project is Rs243 million/Rs894 million or 27 percent.

Charges, Benefits, and the Poverty Impact Ratio

15. The government has decided it can no longer sustain the financial losses of the water supply corporation. The level of water charges is to be raised by 50 percent. It is predicted that, with a price elasticity of demand of -0.4, this will result in a decline in the volume of revenue water of 20 percent. Table 2 depicts the financial and economic returns, and the PIR, in these new circumstances. It is assumed that capital and labor costs are fixed, while electricity costs are fully variable. It is also assumed that nonrevenue water will remain the same proportion of revenue water.

Table 2. Poverty Impact Ratio at Higher Charge Level (PVs at 12%)

A. Distribution	Financial Returns	Economic Returns	Difference	Consumers	Government/ Economy	Labor
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of Project Effects						
Output	1,200	1,440	240	240	150-100	24
Capital costs	650	600	50		64	24
Electricity	264	200	64			
Labor	80	56	24		114	
Total	206	584	378	240		
B. Poverty Impact Ratio			Consumers	Government/Economy	Labor	Total
Beneficiaries						
NEB-NFB			240	114	24	378
Financial return				206		206
Benefits			240	320	24	584
Proportion of poor			0.25	0.50	0.333	228
Benefits to poor			60	160	8	
Poverty Impact Ratio:	228/584 =	0.390 or 39 %				

16. The new level of charges captures some of the consumer surplus. Financial returns become positive and substantial while economic returns, though still positive, are reduced. The distribution of the net benefits between groups changes significantly. The government receives less tax revenue but now receives a surplus from the water supply corporation instead of a loss. Its share of the benefits increase considerably. The benefits to labor remain the same, while the benefits to consumers decrease substantially, both because of the reduction in consumer surplus per unit of water consumed and because of the decrease in consumption.

17. The PIR in these new circumstances is 39 percent instead of 27 percent. It has increased significantly but it is not the main parameter to be affected by the increase in charges, which has transferred more benefits to the owner of the water supply corporation, the government. In fact, the absolute amount of benefits going to the poor has decreased with the increase in water charge. This suggests two things. First, the charges may have been raised by too much; given

the new financial returns, a lower increase in charges could have ensured the financial sustainability of the corporation. Second, the tariff structure is as important for the PIR as the tariff level. In this case the tariff levels were increased for all types of consumer. An increase in tariff together with a different tariff structure could have captured some of the consumer surplus from the higher income groups while leaving the poor groups unaffected. In other words, the increase in charges could be designed to leave a higher proportion of benefits going to the poor.

18. By focusing attention on cost recovery mechanisms and tariff structures, PIR analysis can help improve project design by identifying who benefits and who pays, and by how much. Pricing policy can affect the poverty impact of a project; it can also affect the distribution of benefits between the private and public sectors, for example, where the water supply corporation is privately not publicly owned. However, projects designed to have a significant impact on the poor may at the same time have to be provided at a different scale or in a different location, to raise the proportion of benefits going to the poor.

Exercise: On Poverty Reduction

¹ The poverty impact ratio is based on the distribution of project net benefits. This differs from the Banks project classification criterion, that is expressed in terms of the number of beneficiaries.

**AZERBAIJAN
PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL STAFF**

**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT ANALYSIS AND
PERFORMANCE ASSESSMENT: FROM KEY CONCEPTS TO PRACTICE**

**MODULE III/PART 6:
OVERVIEW ON PROJECT ANALYSIS: KEY CONCEPTS AND TOOLS (cont.)**

Summary of Learning Agenda and Expected Learning Outcomes

Key Topic	Main Learning Outcomes
<p>A) Financial Sustainability and Fiscal Impacts of the Project: Key Concepts and Tools... Is the Project financially sustainable and can Government afford it? (note: within the framework of the GoAZ MTEF and sectoral expenditure budget management system) (+ an example of financial returns to project participants/entity)</p> <p>B) Technical Aspects/Standards</p>	<p>A) Deepened understanding of key concepts and operational application of fiscal impacts of project analysis, to help ensure financial sustainability of projects</p> <p>B) To gain a better operational understanding of the importance of sound technical design and appraisal of projects</p>
<p>C) Environmental Assessments: Key Concepts and Tools (EIA, Env. Action Plans)</p>	<p>C) Enhanced conceptual and operational understanding of the essentials of environmental assessments in economic analysis, and of the application of relevant assessment tools</p>
<p>D) <u>Mid-training workshop test:</u></p>	<p>C) To help consolidate the participant learning process through a short test (2 Parts: multiple choice and 1 essay)</p>

(A) Financial Sustainability and Fiscal Impact:

1. There are three aspects of financial sustainability:
 - the availability of adequate funds to finance project expenditures, especially funds drawn from the government budget,
 - the recovery of some of the project costs from the project beneficiaries, and
 - the financial incentive necessary to ensure participation in the project.

2. Project Funding and Fiscal Impact: A financial plan at constant financial prices is necessary to ensure there will be adequate funds to finance project expenditures. This applies to the implementation period to ensure capital funds are available to cover investment and working capital requirements, and to the operating period to ensure sufficient funds to cover operating expenditures. Where the project will generate revenue, this revenue will be the main source of funds during the operating period.

3. For indirectly productive projects that do not generate sufficient funds to cover operating expenditures, the full fiscal impact of the project for each year of its life should be calculated. The financial requirement becomes a fiscal requirement, and steps should be taken to ensure that the government commits adequate funds for operational purposes. Directly productive projects will also impact on the government budget, through tax revenues and concessions, and the net budget effect also can be calculated. The fiscal impact calculations should be linked to policy discussions over the extent and scale of user charges, operators fees, and tax revenues.

4. For many public sector projects the government budget will be the principal source of funds to meet investment and operating expenditures. These funds could come from different sources. One possible source is a reallocation from other public expenditure programs. Another source is efficiency improvements in other public expenditures. In either case, the additional project expenditure should be considered in the context of public expenditure policy as a whole. Where the funds are not met from reallocations or efficiency improvements, they will be met from extra taxation or from borrowing. The economic effects of extra taxes, in particular what are the likely sources and what disincentives might they create, can be assessed at the national level. The economic effects of extra domestic borrowing by government can also be assessed at the national level. In either case, it is important to consider particularly the effects of extra taxation or borrowing on the groups who are the principal project beneficiaries, especially when these are the poor.

5. Cost Recovery: The introduction or adjustment of user charges to finance project expenditures from project beneficiaries involves four important issues:

- the economic effect of the charges,
- the degree of revenue generation or cost recovery,
- the scope of charges between existing and new users, and
- the affordability of charges by different users.

6. The basic principle behind user charges is that users should pay the economic cost of the good or service being provided. In practice, this does not happen in many cases for government services or utilities. The appropriate cost for users to pay is the marginal cost of providing the good or service in question. However, over the life of a project the marginal cost must include the additional investment costs of expanding supply. The average incremental unit economic costs of investment and operation, on the basis of the least-cost method of supplying a good or service, should be taken as the appropriate target for charging users. This long-run marginal cost should be calculated at future, rather than historic, costs of supply.

7. Three measures should be calculated and compared for each project or subproject producing an output for which charges can be levied, for example, port or water charges. These measures are:

- the average incremental financial cost of supply,
- the average incremental economic cost, and
- the average tariff to be charged.

8. The average incremental financial cost and the average incremental economic cost of supply could both be calculated using the economic discount rate of 10-12 percent. Where a project or project component stands alone, the tariff charged to the users should be related to the average incremental cost of supply for the service provided. Where a project extends an existing network, the tariff charged should be related to the average incremental cost of supply, but spread over existing, as well as new, users. In most cases, either situation will require an increase in charges from present levels.

9. The government may decide to regulate or set charges so that the full costs of supply are not met by users. For example, the government may decide that only the operation and maintenance costs of government services need to be met from user charges, but not the capital costs of the project or project component. If so, the grounds upon which this implicit subsidy is given, should be stated. The extent of the effective subsidy should also be calculated. The effective subsidy is the difference between user charges and the average incremental cost of supply. Any subsidy implicit in the level of user charges will have to be met from funds or resources elsewhere in the economy through the budget system. The training module will elaborate on the above concepts, and will stimulate discussion to deepen an understanding of how these concepts can be applied in practice.

10. Financial Incentives: For a project to be sustained, each of the main participants should benefit from it. However, each also will have a certain standard against which to measure the expected benefits of project participation. A project statement of costs and benefits at financial prices can be constructed for the directly productive elements of a project, for example, the commercial farm, the port authority, the build-own-operate-transfer sponsor, or the tomato paste factory. This project statement also includes the effects of taxation and of loan funds. The basic test of financial sustainability is whether the financial internal rate of return for the project participant exceeds the opportunity cost of capital for that participant. This may also include a risk element where revenues are in the form of charges or fees negotiated with, or regulated by, the government. The economic analysis of the project should include a statement based on realistic assumptions about taxation and the real costs of borrowing on the financial returns to investors.

11. For some project participants, a full financial internal rate of return analysis cannot be undertaken. This will include the government, which may benefit from tax revenues unrelated to its proportion of costs. A statement of the effect of the project on the government budget (especially the recurrent budget) should be included. It will also include small-scale participants whose investment is small or provided in kind, for example small landholders or tenants. Here a statement should be provided of the expected increase in annual income after allowing for any taxes, charges, and the real cost of borrowing.

12. In many cases, the sustainability of project effects will depend upon specific investors or public corporations. A statement should also be included of how the project fits into the overall corporate structure, and whether any restructuring is required. These issues should be followed up in more detail in the financial analysis of the project.

13. Illustration of Financial Sustainability--- Case of the India Channapatna/Ramanagaran Water Supply Project: The design and sustainability of a project must take into account the level of incentive for undertaking and maintaining a project investment. The financial incentive takes the form of the increased income the investment generates for project participants (in this case the Corporation operating the water supply project). The training module will illustrate the impact of several key financial assumptions (water costs, affordability analysis, water user charges for water, on-lending rates), and hence financial and economic sustainability of the Project.

Exercise: Calculation of Subsidy

B) Technical Aspects: note: The specific content will be presented during the class lecture

C) Environmental Assessments: Key Concepts and Tools (EIA, Env. Action Plans)

14. The methodology of integrating the costs and benefits of environmental changes in economic analysis is still evolving. Therefore, such valuation should be carried out for large or environmentally sensitive projects, especially those which require an environmental impact assessment (EIA).¹ (often required by donors, and increasingly, Governments are adopting common guidelines to be applied for all projects, regardless the source of funding).

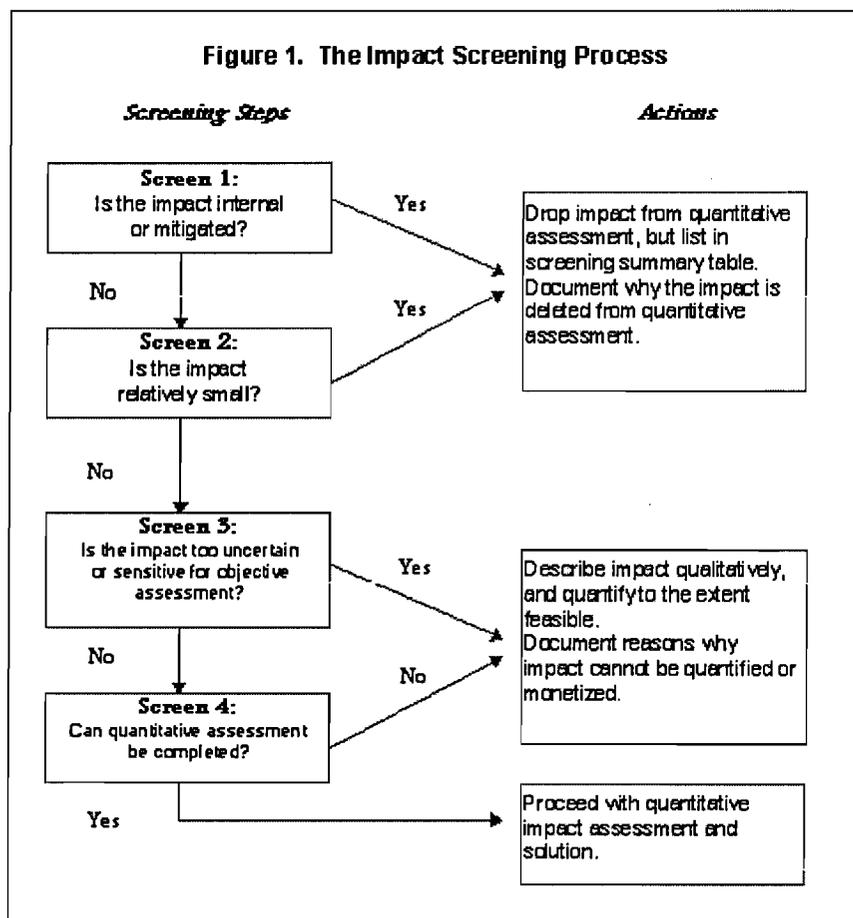
15. The environment is increasingly being treated as a form of natural capital resource and therefore damaging or using the environment is in a sense similar to the use of any other form of capital. Some parts of this capital, for example, the ozone layer, cannot be replaced or substituted with manufactured capital. Valuation of these resources in the context of projects or programs is thus fundamental to the notion of sustainable development.

16. Three important conceptual problems need to be addressed at the outset. First, it is necessary to choose a technique for valuing the environmental impact of the project. Second, for all types of project it is necessary to define the boundary of the analysis. Since most environmental impacts include externalities, how far to expand economic analysis is an important issue. For example, in dealing with the impact of waste water, boundaries for downstream effects need to be agreed upon; should it include the area affected immediately or go beyond to account for impacts on irrigation, fishing, and drinking water far away and often beyond the national boundaries. Third, it is also necessary to define an appropriate time horizon. A number of impacts are immediate or within the life of the assets of the project under consideration, whereas there are effects also beyond the project life. For those cases where impacts go beyond the project life, an extended analysis covering the time period for the environmental impact can be attempted, or, alternatively, the concept of capitalized value of net benefits at the end of the project life can be included, a form of salvage value.

¹ Inputs for this section are based on: the Economic Valuation of Environmental Impacts: A Workbook, 1996, Office of the Environment and Social Development, Asian Development Bank; and Pedro Billi et al, Economic Analysis of Investment Operations: Analytical Tools and Practical Applications (2001) (Chapter 6: Valuing Economic Externalities)

17. The net present value (NPV) of a project is an appropriate criterion to compare the without and with project environmental impacts. Any time, discounting criteria will depend on the choice of the discount rate, which could reflect the opportunity cost of capital or the social rate of time preference. Only one discount rate should be used for any single economic analysis. However, for the Bank discount rate of 10 to 12 percent many long-term environmental impacts tend to become insignificant. Where environmental impacts may extend beyond the life of other project effects, the environmental impact analysis can be combined with a sensitivity analysis for the discount rate, based on a lower rate. If, from the society's point of view, individuals overconsume environmental resources in the present, the discount rate based on society's time preference would be lower than market-based discount rates. In such circumstances, NPVs for without and with environmental impact values can be examined at alternative discount rates.

18. Initial Screening Process: Environmental impact assessments provide the basic information on the physical impacts of different types of stressors as a result of undertaking a project. Using this information, a four-step screening is envisaged as given in Figure 1 to identify major impacts that require quantification. Many potential impacts may not be possible to translate into quantitative terms because of either insufficient data or uncertainty attached to these impacts. A detailed qualitative assessment should be provided in these cases. Following the screening process, it is expected that a list of environmental impacts that require further analysis and quantification, is prepared.



19. Types of Environmental Impacts: Different types of environmental stressors impact on different aspects of the environment. Table 1 provides an illustration of major stressors, the potential impact on the air, water, and land, and in three other areas: human health, human welfare, and environmental resources. The human health effects include both mortality and morbidity impacts; for example, environmental changes can be associated with death or increased probability of death, or a higher incidence of illnesses like cancer, malaria, or respiratory disease. Human welfare impacts include damage to property, visual or noise impairment, traffic congestion, changes in soil productivity, changed patterns of recreational uses, loss of homeland, forced relocation, and effects on cultural or religious beliefs. The final category of impacts are on environmental resources, for example, on coastal areas, freshwater ecosystems, biodiversity, and global systems.

20. The General Approach to Valuation: Environmental impacts can have both use and nonuse values. Use values can be further divided into direct use value, such as natural parks where individuals are willing to pay for the use; indirect use value where these benefits are derived from ecosystem functions such as mangroves; and option value where individuals are willing to pay for avoiding irreversible change. There are a number of primary valuation methods that are used to value environmental impacts. Table 2 provides a summary of these methods and their underlying basis. Two distinct approaches are used for valuation: objective valuation approaches and subjective valuation approaches. In the first approach, damage functions based on technical relationships between environmental stressors and the degree of physical damage are estimated. In the second approach, assessments are made of possible damage expressed or revealed in market behavior. When these values cannot be assessed from direct behavior, surveys are used, such as in contingent valuation methods to assess willingness to pay from a representative sample of people and organizations.

21. The Benefit Transfer Approach. The primary research on project specific conditions is resource intensive and requires a long lead time. Given the data, time, and budget considerations, an alternative method to value environmental impacts in projects is suggested the benefit transfer approach. The benefit transfer approach essentially uses the primary research data generated elsewhere for valuing impacts after adapting such values to the economic valuation of a given project. If the analysis based on this approach affects the project decision, more site specific information could be gathered, and primary research carried out, wherever feasible, to validate the analysis.

Table 1. Alternative Valuation Methods

Valuation Methods	Effects Valued	Underlying Basis for Valuation
Change in productivity	Productivity	Technical/Physical
Cost of illness	Health (morbidity)	Technical/Physical
Human capital	Health (mortality)	Technical/Physical
Replacement costs	Capital or natural resources	Technical/Physical
Preventive/mitigation expenditure	Health, productivity of capital or natural resources	Behavior (revealed)
Hedonic approaches	Environmental quality	Behavior (revealed)

Property/land values	Productivity	Behavior (revealed)
Wage differentials	Health	Behavior (revealed)
Travel cost	Natural resources assets	Behavior (revealed)
Contingent valuation	Health, natural resources	Behavior (revealed)
Benefit transfer	All effects	Technical/physical and behavior (revealed)

22. The approach to valuing environmental impacts using benefit transfer involves three major steps. The first step is to select the appropriate literature given in look-up tables to find reference values and major assumptions regarding the valuation and country conditions. A sample look-up table is presented in Table 3. The evaluator needs to select the most appropriate literature from these tables and a range of values that have been derived from primary research carried out in other country conditions.

23. The second step is to adjust these values to the location-specific conditions. It is often found that this step involves a lot of subjectivity. It is important to correct for differences between assumptions, such as income, level of human development, wages, cost of time, or price levels, since most primary research studies are carried out in the developed countries. EIAs normally provide information on the baseline conditions. For example, the findings of primary research on the health-related impact of vehicular pollution in urban areas in the United States, when used in the context of other cities like Bangkok, can result in an underestimate if used directly to value environmental impact. It is prudent to document the actual adjustments made from the reference values to project specific conditions and the underlying logic. Finally, using an appropriate range rather than one unique number represents the uncertainties of benefit transfer.

24. The third and final step is to set these values in the context of the economic analysis framework; values need to be adjusted to economic prices to make these values consistent with other values used for the economic analysis of the project. In particular, environmental costs and benefits need to be expressed using the same numeraire as for the project economic analysis. Where the economic analysis uses the world price numeraire, and environmental effects are valued in domestic market prices, the environmental costs and benefits will have to be revalued using a specific or the standard conversion factor.

Table 3. Valuing Environmental Impacts: Sample Look-up Tables Under the Benefit Transfer Methodology

Resource or Resource Impact	Specific Resource Impact or Being Valued, Country	Monetary Value (1993 US Dollars Unless Noted)	Citation	Comments/Caveats
Forest Preservation of fuelwood	Phewa Watershed Development, program sustainability	Annual fuelwood values: • \$28 per cubic	eming (1983) as cited in Hufschmidt et.al. (1983)	The program had a yield five times higher than the production scheme without management. Values calculated using

	meet local needs for fuelwood and fodder while arresting the destruction of natural forest areas, Nepal	<p>meter using direct market value</p> <ul style="list-style-type: none"> • \$6 per cubic meter using indirect substitute method • \$8 per cubic meter using indirect opportunity cost for other employment 	or Dixon, Scura, Carpenter, and Sherman (1994)	<p>assumptions about wood density and average family gathering, and daily gathering wage of \$0.50.</p> <p>The economic rate of return was 9 percent.</p>
Species and Land Habitat preservation	Use and preservation of the undisturbed habitat in the Khao Yai National Park, Thailand	<p>Suggested recreational benefits of approximately \$400,000 to \$900,000 per year</p> <p>Total existence value, \$4.8 million per year</p>	Referenced in Pearce (1993).	<p>Method not explained, but presumed to relate to CVM to obtain estimate of existence values.</p> <p>No details on size or nature of this national park given, but park is near Bangkok and may thus be of value to much of Bangkok area population.</p>
All Water Water pollution	Annual damage in 1986 from all water pollution in the Netherlands	\$1.3 to \$3.7 billion - magnitudes of pollution not given and reason for range not given	Opschoor as cited in OECD (1989)	OECD study, prepared by Pearce and Markandaya, states that various techniques were used to derive figures and they were, at best, ball park numbers.
Groundwater	Agricultural groundwater pollution prevention, Dougherty County, Georgia, USA	\$747 per household per year (total value)	Sun, et.al. (1992)	CVM used to estimate WTP for groundwater pollution preventing policies for agricultural pesticides and fertilizers in Dougherty County, Georgia

Air Pollution Regional health benefits	Valuation of health benefits from hydrocarbon reductions, U.S.	Range of \$131 to \$3,400 per ton of avoided pollution for a reduction of ozone of about 30 percent below 1980 levels	Krupnick (1986) as cited in Cannon (1980)	This study estimated that 35.3 million instances of increased coughing would be avoided by the northeastern population with this degree of ozone reduction. 124,000 asthma attacks would be avoided.
Health Morbidity effect	Adult chronic bronchitis	\$126,000 to \$336,000*	Viscussi et.al. (1991), Krupnick and Cropper (1992)	Surveys were conducted to estimate WTP for reducing the risks of developing chronic respiratory diseases. Respondents were presented with trade-off options for the risks versus the cost of living.
	Restricted activity day	\$25 to \$75	Loehman et.al. (1979)	WTP
	Acute respiratory symptom day	\$5 to \$15	Loehman et.al. (1979), Tolley et.al. (1986)	WTP

* = in 1990 US dollar.
WTP = willingness to pay

25. Conclusions: There are a number of important issues that need to be kept in view while valuing environmental impacts. First, most primary research is carried out in developed countries and until data and information based on primary research in developing country conditions are available, recorded values can only provide an approximate range. Second, there is a great deal of uncertainty attached to these values. Therefore, the analysis should be carried out in the context of dealing with uncertainty facing the project. Third, for projects with possible large environmental impacts, additional resources should be devoted for data collection and validation of primary research data. Finally, the evaluator will need to explicitly state omissions and subjective judgments in a transparent manner for an informed decision.

26. Guidelines for Environmental Impact Assessments: These core elements of standard international practices for carrying out environmental impact assessments for public investment projects will be presented, together with some of the key issues and strategies for their effective application (and appropriate adaptation to Azerbaijan conditions, varying according to sector. One project example will be used to illustrate the application of the EIA.

D) Mid-training workshop test:

**AZERBAIJAN
PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL STAFF**

**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT
ANALYSIS AND PERFORMANCE ASSESSMENT IN THE PROJECT CYCLE:
FROM KEY CONCEPTS TO PRACTICE**

**MODULE IV:
PROJECT INSTITUTIONAL AND RISK ASSESSMENT: KEY CONCEPTS AND
TOOLS**

Summary of Learning Agenda and Expected Learning Outcomes

Key Topic	Main Learning Outcomes
A) Project Institutional Analysis: Framework and Approaches Toward Achieving Good Public Management and Results	A) An enhanced understanding of key concepts and tools for carrying out institutional assessment, design, and appraisal for project analysis, and for effective implementation
B) Confronting Uncertainty: Risk and Sensitivity Analysis, and Mitigation Measures	B) A basic understanding of key concepts and tools for carrying out risks and sensitivity analysis, as well as the importance of working out appropriate mitigation measures

A) Program/Project Institutional Analysis: Framework and Approach(es)/Tools Toward Achieving Good Public Management

1. Traditional financial and economic analysis has not devoted much importance to institutional analysis and development to helping ensure the achievement of the project objectives and sustainable outcomes. Analysts have tended to leave the institutional issues to the Project Managers and implementation team. In recent years, there is an increasing recognition on the importance of including institutional analysis/assessment as a critical part of project design and approval process, as a key element to the broader goal of promoting improved public management. Multilateral organizations like the World Bank now require an explicit institutional assessment, at various levels, as an integral part of project design, as a key element to achieving sustainable project outcomes. The analytical approaches and tools for carrying out comprehensive institutional assessment and operational strategies/action plans are in the early stages of development, and will be expanded upon during the training module, including (some of these steps are sequential):

(a) Institutional “mapping” of the relevant organizations/agencies involved in carrying out the proposed project, and identifying their respective roles and complementarities (including public and private sector partnerships), and relevant issues and strategies to address (resolve) during project design and implementation (especially any organizational restructuring);

(b) Institutional assessment of the strengths and weaknesses of the participating institutions (including SWOP analysis as a tool), at the field/micro, meso and macro/national levels, to formulate, implement and sustain the project activities;

(c) Institutional strategy and action plan, including relevant reforms, for project development, implementation and sustainability. It will be vital to be consistent with Government policies regarding the roles of private-public sectors, and devising institutional arrangements which help ensure sustainable interventions. The proposal and tendency to use separate “project units” needs to be carefully assessed, and avoided wherever possible, in order to help ensure greater project sustainability. Rather, the project analyst should help promote/catalyze efforts “to embed” a project’s institutional arrangement within existing programs and institutional arrangements, supported by needed reforms and/or strengthening, while also ensuring effective and timely implementation of project activities. This needs to be supported by ensuring strong linkages between the sector policies, the relevant program(s), and supporting investment project, and using the project to help address the relevant institutional issues and strengthening.

2. For example, weak, unclear institutional capacity, and/or unsustainable arrangements of the proposed project’s implementation/institutional arrangements suggest the need to take a more comprehensive approach through the proposed project, including the following key elements:

- re-assessing/clarifying roles and partnerships for public/private sectors;
- the adequacy of “incentives” for effective and timely implementation;
- the need for national civil service reforms (underpinned by sectoral reforms);
- a systematic campaign against corruption, especially preventive measures;
- the need for a performance-based budget management system;
- re-vamping the approach to traditional technical assistance and training (not only for the propose project, but also use to strengthen the implementing agency and to promote sustainability of key policies and investment programs);
- promoting greater and more effective participation of key stakeholders in all phases of the project (including roles of local governments, civil society groups, private sector), and
- strengthening the functioning of the project’s (or programs) monitoring and evaluation system, as an input to better public sector

“governance”, while providing higher quality services to key stakeholders.

3. In the light of the above principles/approaches, the institutional aspects of a project design need to address the following key questions:

- (a) Which institution(s) will be responsible for implementation of the project and its various components?
- (b) On what basis were the institutional arrangements selected?
- (c) What capacity constraints need to be addressed, including financial management and procurement, and how this be done? What are viable alternatives to using non-sustainable project management units?
- (d) What will be the flow of funds and the accountabilities for financial reporting?

4. Many of these elements to devising and analyzing a sound institutional plan for the project, along with the relevant “tools”, will be elaborated upon during the training module. Also, the case study examples covering during the workshop and consolidated in Module VI will give special attention to illustrating the application of many of the above mentioned approaches and tools.

Key Questions/Discussion:

- Why is it important to include a sound institutional analysis as an integral part of project financial and economic analysis?
- How can the project analyst promote greater attention to sound institutional assessments and operational strategies (at various stages of project implementation)?
- What are alternative approaches to relying on Project Implementation Units, to help ensure sustainability of key project activities?

(B) Confronting Uncertainty: Sensitivity and Risk Analysis, and Mitigation Measures

5. Introduction. The economic internal rate of return (EIRR) of a project is calculated using the most likely forecast values of economic benefits and costs. However, the stream of benefits and costs is influenced by a wide variety of factors that may vary from the base case. Sensitivity analysis shows the extent to which the project EIRR or net present value (NPV) changes for different values of the major variables. Quantitative risk analysis considers the probability that different values will occur, and summarizes the associated risk attached to the project. These techniques can be used to assess the implications of uncertainty for the choice between project alternatives or for project viability.

6. Both sensitivity and risk analysis focus on alternative assumptions that have an unfavorable effect on the project result. Where the project outcome

depends upon one or two major variables that are uncertain, mitigating actions should be included in the project design. Where a high level of risk is associated with a project that promises substantial returns, then the decision of whether to accept the project or not in its present design will depend on the decision makers attitude to risk.

6. Sensitivity analysis should be applied to all projects and subprojects with quantified benefits and costs. It should be applied also to project financial analysis and to the environmental components of project analysis where these have been quantified. The purpose in all cases is to identify actions that can mitigate the effects of uncertainty, or to redesign the institutional structure of the project to ensure sustainability. It should also be applied to projects, such as in education, health, and family planning , where benefits may not have been fully quantified. In such cases, sensitivity analysis can be oriented around a summary project measure, such as the unit economic cost of providing a new service.

7. Sensitivity Analysis: Sensitivity analysis is undertaken to help identify the key variables that can influence the project cost and benefit streams. It involves recalculating the project results for different values of major variables where they are varied one at a time. Combinations of changes in values can also be investigated. Sensitivity analysis involves four steps:

- selecting those variables to which the project decision may be sensitive;
- determining the extent to which the value of such variables may differ from the base case;
- calculating the effect of different values on the project results by recalculating the project NPV and EIRR; and
- interpreting the results and designing mitigating actions.

8. Project statements are made up from underlying project data and assumptions. For example, vehicle operating cost savings are made up from traffic projections for different proportions of vehicle type, their division into without project and generated traffic, data on road quality and maintenance operations, and data on the vehicles and their operating costs. Sensitivity analysis of the project benefits for a road improvement project should be based on changes in such underlying variables rather than the aggregate benefit measure. Focusing on underlying rather than aggregate variables facilitates the design of actions to mitigate against uncertainty.

9. Some of the variables entering into the project cost and benefit streams will be predictable and small in value compared with total costs and benefits. It is not necessary to investigate the sensitivity of the project to such variables. Other variables may be larger and less predictable. Post evaluation studies and previous project experience may indicate both the type of variable that is uncertain and the likely extent of divergence from the base case value. There are

some types of variable in every project that are likely to affect the project result and may be key variables for the project.

10. The quantities of inputs required to produce the expected quantity of outputs will be given in the corresponding technical feasibility study. However this is often subject to considerable uncertainty. Inadequate supplies or maintenance can change the ratio between inputs and outputs and reduce project outputs. In addition, the quantity of output produced for a given set of input supplies will depend upon the incentives created for producers. Changes in management, improved skills, and financial returns to the producer will all influence the output produced from the available inputs. Consideration should be given to both the technical and institutional characteristics of the project as a guide to sensitivity analysis.

11. Quantities of outputs and inputs can also be affected by changes in technical or market conditions. Quantities should be broken down into their underlying components for example, agricultural outputs into areas and yields, or vehicle cost savings by type of vehicle, or construction costs into unit costs and quantities and the sensitivity of the project to each of the components considered. Output quantities will also depend upon demand forecasts and market analyses. The underlying assumptions of these forecasts and analyses should be subject to sensitivity analysis.

12. Changes in the major values in the project statements the main outputs, inputs, and investment costs may occur because of changes in prices for any of these items. Changes can occur in the market prices or shadow prices used in calculating costs and benefits directly or used in the estimation of opportunity costs. Commodity prices for major outputs and inputs can fluctuate considerably from year to year. The influence of the average annual forecast prices on the project worth should be tested by varying the forecasts, which should take into account the effect of possible changes in the quality of outputs over time on prices. The prices of labor and nontraded goods can also be subject to change although these might not have the same degree of impact on the project worth.

13. Timing and Coordination. The timing and coordination of project activities may differ from the base case. The timing of investment costs that occur early in the project life can affect the measure of project worth considerably. Alternative timings incorporating pessimistic assumptions about construction delays should be assessed. Different investment components need to be coordinated, for example, dam completion and resettlement in irrigation projects. The possible costs of delay in one investment component on the others should be investigated through alternative timing assumptions.

14. Utilization Rates. Project results can be seriously affected by the extent to which the investment assets are utilized (or utilization rates). Lower utilization rates than in the base case will be reflected in lower output levels and lower

operational costs, but without any decline in investment costs. Utilization is commonly expressed as a percentage of feasible capacity use. The effects of a reduction in the rate of utilization should be investigated through adjustments to both benefit and cost streams, where possible distinguishing between fixed and variable costs.

15. “Shadow Costs”. Economic analyses of projects involve the estimation of opportunity costs for the outputs and inputs. In most calculations economic costs and benefits are calculated by using the ratio of the shadow price of a project item, or the resources that go into it, to its market price. The effect of the estimated ratios on the project worth should be investigated through sensitivity analysis. Except for the most labor intensive projects, it is rare that a project result would be significantly affected by a variation of the shadow wage rate for surplus labor; and for most projects, variation in the shadow wage rate for scarce labor is also unlikely to be significant. More significant will be the value assumed for the shadow exchange rate (SER) and therefore the shadow exchange rate factor (SERF), or the standard conversion factor (SCF), whichever numeraire is being used in the economic analysis. Alternative estimates of the SERF will affect both benefits and costs in the sensitivity analysis. Most simple estimates of the SERF (SCF) take account only of the tax and subsidy system and not of other factors separating financial and economic prices, such as monopoly rents; it is pertinent to include in the sensitivity analysis a higher value for the SERF (lower value for the SCF).

16. Procedure for Sensitivity Tests. The following procedure could be followed when assessing the consequences of changes from base-case values of major variables.

- Variables to which the project is likely to be sensitive, such as those referred to above, and for which there is some uncertainty, should be listed. Alternative values should be assumed, based on previous project data where available. The change in the value of the variable should be calculated and expressed as a percentage of the original value. The extent of change should be stated for those variables such as timing of activities where a percentage change is not meaningful.
- The project NPV and EIRR should be recalculated for stated changes in variables one at a time. Unless a different country estimate is available, the NPV should be calculated using an economic discount rate of 12 percent.
- A sensitivity indicator (SI) summarizing the effect of change in a variable on the project NPV should be calculated. The SI is calculated as the ratio of the percentage change in the NPV to the percentage change in a variable (see Addendum). A high value for this indicator indicates project sensitivity to the variable. For variables where percentage changes are not meaningful, the percentage change in the NPV should be stated along with the stated change in the variable.

- A switching value (SV) should also be calculated. Where the base case shows a positive NPV, the SV shows the percentage increase in a cost item (decline in a benefit item) required for the NPV to become zero (which is the same as the EIRR reducing to the cut-off level of 12 percent). The SV is itself a percentage, the percentage change in a variable for the project decision to change (see Addendum). It can be compared with the variation shown in postevaluation studies or in price forecasts. For many variables, the SV will be high, implying a very substantial change in the variable before the project decision is affected. For a few variables, the SV will be relatively low showing there may be a significant risk for the project outcome.
- In deriving the economic costs and benefits of a project, a SERF (or SCF) will have been used along with other general conversion factors. Sensitivity analysis should include changes in the SERF (SCF) and other general conversion factors to see to what extent the project results are sensitive to the conversion factors used in the analysis.
- The change in the NPV should be calculated for combinations of variables, for example, a lower level of demand and a delay in investment completion, or an increase in cost together with a lower output price. The rationale for any combination of variables should be stated, bearing in mind that changes in more than one variable may have a common cause.
- The results of the sensitivity analysis should be presented in a table showing the base case results, the change in each variable considered, the sensitivity indicator, the switching value, and the changes in project worth for cases where these indicators cannot be calculated, or for combinations of variables. The table should include the consequences of alternative values relating to all technical, economic, environmental, and distributional aspects of the project.

17. The results of the foregoing sensitivity analysis should be reviewed considering the following questions:

- Which are the variables with high SIs?
- Have the calculations used the likely changes in these variables?
- Do the likely changes come close to, or exceed, the switching values that will change the project decision?
- How likely is it that the combinations of the variables investigated will occur?

18. These questions will help identify the truly key variables for the project, those that have a substantial effect on the project results, where plausible changes come close to or exceed their switching values. For the key variables identified in this way, a statement should be made of the likelihood of the variation tested actually occurring, the switching values for the key variables that should provide a basis for project monitoring, and the measures that could be taken to mitigate or reduce the likelihood of such variations from the base case.

19. Where projects are seen to be sensitive to specific variables, steps should be taken to reduce the extent of uncertainty surrounding those variables. This may require actions at the project, sector, or national level, for example:

(a) At the project level

- the agreement of long-term supply contracts at specified quality and prices to reduce uncertainty over operating costs;
- the formulation of training activities to ensure technical ratios are achieved and maintained;
- the development of information or publicity programs to increase access and use of new goods or services;
- the incorporation of external effects into project costs through regulation or taxation to ensure they are taken into account; and
- where there is considerable uncertainty in a large project or program, the implementation of a pilot project or phase to test technical assumptions and to observe users reactions.

(b) At the sector level

- tariff and price adjustments to ensure appropriate incentives for producers and the financial liquidity of implementing agencies;
- technical assistance programs to develop project and operational management skills; and
- loan covenants to prompt necessary institutional reforms.

(c) At the national level

- changes in tax and credit policy to influence incentives and simplify procedures;
- implementation of legislative reform and regulation to provide a more certain framework for productive activities; and
- changes in exchange rate and fiscal management to provide greater stability in prices and costs.

20. Project Example of a Sensitivity Analysis: The irrigation rehabilitation project example presented in Module III is used here to illustrate the application of sensitivity analysis. The project involves a predicted increase in cropped area for irrigated rice, in cropping intensity, and in yield, as a result of rehabilitation, with a compensating decline in vegetable cropped area. The base case result, EIRR of 19.0 percent and economic NPV of Rs1,440 million at 12 percent discount rate, is also based on a long-term relative economic price decline for rice and a long-term relative economic price increase for fertilizer. The main variables to which the base case may be sensitive, together with the possible changes in those variables, are selected as follows.

21. On the basis of previous rehabilitation projects, there is uncertainty over the farmer response to improved irrigation. Postevaluation studies indicate the possibility of lower values for cropped rice area, cropping intensity and yield by 9, 10 and 6 percent, respectively. There is also uncertainty over the levels of cropping intensity and yield of both vegetables and rice, without the project. Increases in these variables of 10 percent have been included in the sensitivity tests.

22. The forecast price of rice and fertilizer should be key variables in the project analysis, as the project will increase both the quantity of rice output and the quantity of fertilizer input. In the sensitivity analysis, the forecast price of rice, which declines over the first ten years of the project anyway, is predicted to follow the same pattern but to be at the level of the lower range of the 70 percent distribution given together with the basic World Bank price forecasts. This is equivalent to a price 39 percent lower than in the base case. On a similar basis, the fertilizer price is tested at a price 42 percent higher than in the base case, at the higher range of the 70 percent distribution.

23. Other variables are also included in the sensitivity analysis. There have been delays in the implementation of previous projects. A two-year delay is considered here. The effect of a 10 percent higher investment cost is tested. The project benefits depend upon continued maintenance activities. Rather than a higher level of maintenance costs, the last five operating years of the project are excluded to allow for the possibility of inadequate maintenance activity. The two principal shadow price factors, the SERF and the SWRF, are subjected to lower and higher values, respectively, by 10 percent. Finally, some combinations of variables are also tested.

24. The results of these sensitivity tests on underlying and specific benefit and cost factors are given in Table 1. By observing the SVs in each case, very large changes are required in some variables for the project decision to change. This includes investment costs, the economic price of fertilizer, the cropped area for rice with the project transferred from vegetable production, and the SWRF. For some other variables, cropping intensity and yield for rice without the project, the SERF, and the reduced operating life because of inadequate maintenance, not so large but still unlikely differences from the base case would have to occur for the project decision to change.

Table 1. Results of Sensitivity Analysis: Irrigation Rehabilitation Project

Item	Change (%)	NPV (Rs mn)	IRR (%)	Sensitivity Indicator	Switching Value (%)
Base Case		1,440	19.0		
Costs					

Investment Costs	+10.0	1,291	17.9	1.03	97
Fertilizer, economic price	+42.1	753	15.8	1.13	88
Benefits					
Rice economic price	-38.9	-1,427	1.7	5.12	-20
With:					
Rice area	-9	1,298	18.3	1.10	-91
Rice cropping intensity	-10	446	14.3	6.90	-14
Rice yield	-6	844	16.2	6.90	-14
Without:					
Rice cropping intensity	+ 10	873	16.3	3.94	25
Rice yield	+ 10	873	16.3	3.94	25
Vegetables yield	+ 10	1,162	17.7	1.93	52
Delay in Benefits Two years		636	14.9	NPV declines	by 75 percent.
Operating Life Reduced five years		1,250	18.6	NPV declines	by 13 percent.
Shadow Price Factors					
SERF	-10	1,084	17.7	2.47	-40
SWRF	+10	1,383	18.6	0.40	253
Discount rate (14%)		889	19.0	NPV declines	by 38 percent.
Combinations					
A. Investment Cost	+10	-16	11.9	10.10	
Fertilizer price	+10				
Rice, vegetable yield, with	-10	-612	8.7	14.25	
B. As A, plus Rice economic price	-10				

IRR = Internal Rate or Return
NPV = Net present value

25. There are four variables to which the project is most sensitive and to which most attention should be paid. These include the economic price of rice, the cropping intensity, and the yield for rice with the project. The forecast values for these variables need only be less favorable by 20 and 14 percent for the project decision to change. The project result is also sensitive to delays in implementation. The first variable is outside the control of the producers and the

country. The other three are part of the project design and implementation process, which the executing agency can affect with more or less success. The combination of higher costs and lower yields, which has also been tested, shows considerable sensitivity, together with the further combination also involving a lower economic price of rice.

26. The following recommendations are made in the light of these results of the sensitivity analysis:

- The monitoring of benefits during and after implementation should particularly include the cropping intensity and yields for rice together with its economic price.
- There is considerable risk because the project returns are so dependent on rice production and there is a great degree of uncertainty about the future economic price of rice. Under institutional development, funds should be provided for research activities at an experimental level into alternative crops for diversification purposes, including higher quality vegetable crops.
- The domestic price for rice and the rice marketing system must be reviewed to ensure there is sufficient financial incentive for farmers to switch from vegetable to rice production in early project years, otherwise the economic benefits of the project will be delayed.

27. Identifying and articulating the most appropriate mitigating measures will require a broader knowledge of the project (and its policy and implementation environment). It is recommended that the analyst (or other project formulators) formulate the mitigation action plan, in conjunction with members of the project team.

28. Where projects are seen to be sensitive to specific variables, project team members should identify and recommend appropriate steps to reduce the extent of uncertainty surrounding those variables. This may require actions at the project, sector, or national level (various examples will be provided).

29. Quantitative Risk Analysis. This analysis provides a means of estimating the probability that the project NPV will fall below zero, or that the project EIRR will fall below the opportunity cost of capital. The irrigation rehabilitation project is subject to uncertainty particularly with respect to cropping intensity and yields for rice together with its economic price. Risk analysis considers combinations of values for these major variables and the probability that they may occur.

30. In this case, a quantitative risk analysis can be recommended because of the substantial combined risk associated with the main "with project" crop (i.e., rice). The following information is required for each of these variables to conduct the risk analysis:

- the results of the sensitivity tests;
- a range of values above and below the base case value;
- an upper and lower bound and a value in between; and
- a probability of occurring for each of these values.

31. In this case, a forecast distribution for the price of rice is available from the commodity price projections of the World Bank and can be used to derive this information. Changes in rice yields with irrigation have also been investigated through a number of post evaluation studies for similar projects, and these studies can be used to define the distribution of values for rice yield. Less information is available about cropping intensities, and assumptions will have to be made for this particular variable.

32. Quantitative risk analysis involves randomly selecting values for these three variables from the probability distributions that have been determined; combining these values with all other base case values to give an NPV result; and repeating such a calculation a large number of times to provide a large number of NPV estimates. These NPV estimates can be summarized in a distribution. The key feature of this distribution is the proportion of NPV values that fall below zero, and hence the probability that the project result might turn out to be unacceptable. There is no fixed criterion for using such a result. High risk probabilities may be associated with projects that have a high expected NPV. The probability of achieving a less than acceptable result is provided as part of the information on which a project decision is based.

33. Risk Mitigation Strategy and Measures. Based on the risk assessment (quantitative and qualitative), it is important for the project designers and analysts to formulate an appropriate risk mitigation strategy as well as specific measures/interventions. The module will provide an example of a risk management strategy and interventions.

Key Questions/Discussion:

- What role can the project analyst play in helping to ensure the relevant risks are adequately addressed, at different stages of the project development and implementation?

Exercise: Sensitivity Analysis

**AZERBAIJAN
PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL STAFF**

**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT ANALYSIS AND
PERFORMANCE ASSESSMENT IN THE PROJECT LIFE-CYCLE:
FROM KEY CONCEPTS TO PRACTICE**

**MODULE V/PART 1:
PROGRAM/PROJECT MONITORING & EVALUATION, AND PORTFOLIO
PERFORMANCE TOOL: KEY CONCEPTS AND TOOLS**

Summary of Learning Agenda and Expected Learning Outcomes

Key Themes	Expected Key Learning Outcomes
A) Overview of key concepts and tools of M&E	A) An improved understanding of key concepts and tools of M&E (program and project levels)
B) Program/Project implementation and portfolio assessment/performance: operational strategies and tools (6) for getting sustainable results	B) Improved operational understanding of the importance of establishing an effective performance-based monitoring system, and using appropriate tools/interventions to promote sustainable results (e.g., use of annual work plan, procurement plan, and taking a “program” and portfolio approach)

(A) Overview of Key Concepts and Tools of M&E

1. Program and project monitoring and evaluation increasingly is recognized by development practitioners as an important component of a project’s success throughout the project cycle, but in practice, seems to be on the weakest links in the design and implementation of projects. This often reflect reflects an incentive system which rewards the persons/institutions which generate and process a new project, rather than rewarding the persons who highlight achievements and impediments during project implementation.

2. More recently, there is a shift from micro-level project M&E to “program results-based M&E systems” (embedded in national or sectoral systems). Given that Azerbaijan has formulated its own Poverty Reduction Sector Program, it is relevant to approach M&E system in relation to strategic sectoral programs. The PIPE’s development of a technical note to guide the preparation of “Strategic Sector Development Plans” (October, 2005) also provides an avenue for orienting the M&E system toward supporting sectoral development plans and their supporting sectoral PIPs (and component programs).

3. Accordingly, module V will provide some key concepts and tools to be applied at the project level (along more traditional approaches), and then progresses towards a

sectoral/program approach, including a “results-based M&E system” (based on 10 suggested steps).¹

4. M&E: Why should we bother? There are 3 main reasons.....

- To improve resource allocation—Problems are large, public resources are limited. We want existing resources to reach as many poor and vulnerable people as possible
- To enhance effectiveness—We should only pay for programs that “work”
- To strengthen accountability—programs/projects (and their managers) should be accountable for performance

5. What is Monitoring? ...It:

- Provides information to project managers on whether resources are used as agreed (inputs) and whether the program is progressing as expected (outputs)
- Usually involves both quantitative and qualitative data, focusing on final and intermediate outcomes
- Is a continuous process throughout a project

Monitoring involves:

- An iterative process—you do it all the time, with routine periods of assessment and feedback
- Regularly producing the quantitative performance data, looking at it, determining with staff and others affected what it is telling you
- Regularly using qualitative information to
 - Help you reach the correct understanding of the quantitative data
 - Identify relevant problems, and figure out what to do to correct them

6. What is evaluation?....It:

- Determines whether the project is achieving the intended “results”
- Measures the impact on participants (impacts) as well as aspects of project implementation and delivery
- Usually involves both quantitative and qualitative data
- Is not done on every project—a project must be “worth evaluating”

7. Evaluation involves four main types of activities:

- Evaluability assessments—is the project ready for evaluation?
- Implementation analysis—is the project fully operational?
- Process analysis—how is the project running on a daily basis?
- Impact analysis—does the project, as delivered, achieve its goals?

8. Evaluation includes:

- Evaluability assessments

¹ Ten Steps to a Results-Based Monitoring and Evaluation System: A Handbook for Development Practitioners, by Jody Zall Kusek and Ray Rist (World Bank, 2004).

- Many programs are not ready for a full impact evaluation. Some will never be worth a full evaluation. Assess evaluability before going any further
- Implementation analysis
 - For all programs but especially for new ones, it is important to determine whether the intervention is up and running, whether all of its elements are in place and working as designed. It is easy for this stage to take 1 to 2 years. Don't even think about impact evaluation until you know the program is functioning as expected
- Process assessments and performance monitoring
 - Once the program is fully operational
 - Do performance monitoring to manage the programs and activities to increase success
 - Do process assessments as part of an impact evaluation to be sure you can include measures of program inputs in your impact analysis
- Impact evaluations—did the intervention achieve the desired goals?

9. What is the difference between *Performance Monitoring vs. Implementation or Process Analysis*?

- They have different goals, but often shared measures
 - Implementation and process analysis—part of evaluation that lets you understand whether results are attributable to how the intervention worked (or didn't work) in practice
 - Performance monitoring—part of ongoing management and accountability
- Process analysis and performance monitoring use quantitative data
 - From program administrative records and formal surveys
- All use qualitative data
 - From interviews, focus groups, observation, analysis of written documents

10. What is the link between the Project Cycle (logframe) and key M&E Concepts?

- Inputs → Monitoring: Resources provided for program activity
- Outputs → Goods and services generated by the program
- Outcomes → Evaluation: Access, satisfaction, and use of program goods and services
- Impacts → Changes in behavior and living Standards

11. Use of a Logic Model to Guide M&E and Improve Performance: The M&E system should start with the goals, and should have the following features:

(a) can include long-term as well as short-term goals, but focus on realistic goals, not the universe of possibilities;

(b) If you can't be very clear about how you expect short-term accomplishments to lead to longer-term outcomes, you probably shouldn't include the longer-term ones

(c) Goals should be as clear as possible, and as proximate as possible. More specifically, research suggests:

- In general, interventions have their biggest effects on the primary focus, smaller effects, if any, on the secondary focuses
- For example, if you're trying to improve employment and earnings, and think that this might also improve health indicators, you should certainly health indicators, but expect a smaller impact than for improved family income
- Interventions with a primary focus of changing organizational structures (i.e., reorganizing government agencies or service delivery structures), with the expectation that these changes will affect a goal several logical and pragmatic links away—such as improving health well-being—rarely see these ultimate outcomes actually happen, at least within the time frame of the evaluation

12. Next, list characteristics of the target population—

- What strengths do they bring with them, related to the goals which have been set?
- What personal, familial, or neighborhood characteristics have been barriers, keeping the target population from trying to reach or actually reaching the goals?
- How should you structure the intervention, including “incentives”, so the target population will participate? What will attract them to participate, what push them away?
- What types of interventions are likely to help the target population reach the goals?
- What has not worked in the past with this target population?

13. Try not to do a project that was designed, or imported from somewhere else, without analyzing the real needs of *your* target population, the things that will attract them to participate, and the things that will keep them away.

14. Next, list what you are doing or could do that you think will increase strengths and/or reduce barriers to produce your goals for the target population—i.e., the intervention itself. Every aspect:

- Of the intervention itself, from targeting approaches to recruiting strategies to eligibility criteria to supports and services to follow-through
- Of which agencies or organizations, which staff, which supervisors, which bureau chiefs, etc. must be involved, and the mechanisms by which they will (or should) take part

15. Also think about what you are spending money on that does not materially advance these goals (for possible re-allocation)

16. Assess whether the intervention is big/intense/focused/well-targeted enough to possibly produce the effects you are expecting from it—if not, why do it, or at least if the motivation is entirely political, why subject it to evaluation?

17. Finally, list contextual factors that could make the project/program interventions more or less successful. Whatever are likely to be the greatest local barriers or supports, other than the intervention itself

- Local housing market / jobs market / education quality / health care availability / etc.
- Political will
- Provider capacity or resistance to the intervention model

18. Long-term objectives are to reduce the effects of poverty (nutritional, educational, familial, employment, etc.). The shorter-term goals, that you could assess every year (for example):

- Fewer children show effects of malnutrition
- More children remain in school and graduate
- Fewer female-headed families, more multi-earner families
- More employment, higher household incomes
- Fewer households in makeshift housing
- More households with access to safe water
- Etc.

19. Evaluability Assessments: A first step is to determine when to evaluate, based on clear criteria. A second step is establish realistic expectations for program timetables. A third step is to stage the evaluations, assuming different evaluation components will need to happen at different times in a project's life cycle. Not all interventions, programs, projects, or policies need or deserve evaluation: (a) a program/project must be "evaluable" ; (b) an evaluation should have the possibility of adding new knowledge; (c) a project may "assess" rather than evaluate, to identify problems/issues.

20. An evaluable project/program/intervention, or one for which it might pay to do an impact evaluation, has the following traits:

- Is stable, not still developing, not likely to change in major ways;
- Is clear about its goals—what it is trying to do
- If multi-site, is reasonably similar in all sites
- Is substantial—enough is being done to anticipate that it might have impacts
- Has adequate sample size—enough participants to demonstrate results
- Can be documented—is collecting data to show how, how much, when, etc. is being delivered to whom

21. It is very wise to assess evaluability rather than assuming it, for the following reasons:

- Saves resources when program is not ready
- May help identify areas where the program needs significant help to fulfill its design and expectations
- May help identify areas where the original design is flawed and rethinking is needed if you are not going to waste a lot of resources
- If implementation is slow or off target, may help program staff focus on what needs to be done

22. Principles to Ensure a Useful Evaluation. Some evaluations just sit on shelves, while some get used. What's the difference?

- Address a “hot topic” (or respond to an issue)
- One or more policy makers is interested from the beginning, and you are able to keep that interest high
- Explicit planning to produce what the end users will want and need, in formats they can use
- Defensible results, based on a design that has taken possible objections or points of resistance into consideration
- “No surprises.” Have a feedback strategy that warns people if results are going to be different than expected, and gives them a chance to absorb, respond, think through, adjust
- Good dissemination strategy, and clear, simple, yet accurate and complete, dissemination documents

23. Participants in the Planning of an Evaluation: They include several key actors, including their motivations:

- The funders, because they are (or should be) motivated to know what you will discover or they wouldn't be paying.
- The policy makers you hope will act on your results, to learn what evidence they will believe and what outcomes they care about.
- The people who will have to carry out the intervention, from directors/managers to direct service workers, because they
 - Understand their current practice better than anyone,
 - Will have to understand the intervention if it is to be performed appropriately,
 - Will need to buy into the intervention's goals and approach,
 - Will need to accept the criteria the evaluation will use to measure success, and
 - Without their cooperation you won't get the data you need.
- The researchers, as they will be designing and carrying out the research.
- The recipients/beneficiaries/participants in the intervention, if at all possible, to learn how they perceive its goals and indicators of success.

B) Program/Project implementation and portfolio assessment/performance: operational strategies and tools for getting sustainable results

24. Most countries have weak implementation performance-based management “cultures” and systems to help ensure the assumed benefits are realized (even when project entry has an “optimum” project design and high economic rate of return). Accordingly, it is vital that the M&E system and performance indicators be used effectively during implementation, primarily by ensuring appropriate institutional arrangements to generate and use the relevant information on the program/project implementation (which is being covered in this Module). There are several other important instruments which should be used during implementation to help ensure project success, including:

- Periodic field supervision missions, by project teams from the implementing AND oversight ministries (and not only when foreign donor missions visit);
- Comprehensive joint mid-term review supervision missions, especially of large and strategic projects, and devising clear, monitorable action plans;

- Systematic follow-up on key action plans, and regular review and feedback by senior ministry staff, preferably in the context of periodic portfolio reviews (by the senior management), with clear feedback, guidance and problem-solving approaches;
- If necessary, project restructuring, at any time during implementation (and any relevant changes in the legal agreements, if financed by foreign donor agencies)
- Disciplined practice of preparing/updating project annual work plans and procurement plans, taking into account strategic objectives and outcomes.

Outcome Indicators	Baseline	Target Values					Data Collection and Reporting		
		YR1	YR2	YR3	YR4	YR5	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
80% of targeted urban companies receiving grants decrease their industrial pollution index	To be taken as companies enter program	---	----	80%	80%	80%	Yearly cumulative report, with individual company inspections as per regulatory cycle	Env. Agency audit of compliance of target group	Local Env. Agency
Results Indicators for Each Component									
Component One : % of companies with x certified full time engineers	None	---	90%	90%	90%	90%	Twice a Year : Grant management reports and disbursement records	Reports from companies to grant management body	Grant management body
Component Two : Compliance checks meet regulatory standards	No compliance currently	---	---	48%	50%	70%	Yearly cumulative report with individual audits scheduled as part of reg. Agency work program	Spot audits of companies and review of compliance records	Regional Environment Oversight Body
Component Three: % of targeted companies aware of the importance of environmental protection	To be undertaken YR1		70%	70%	70%		Twice a year for each urban area	Media survey	Private sector firm contracted for IEC campaign
% targeted companies requesting information on changes needed	Monitoring	None	None	None	None		On-going tracking by information center in Regulatory agency	Records in regulatory agency	Local Env. Agency
% of companies in the urban area aware of the new regulatory standards	To be undertaken in YR1		70%	70%	70%		Twice a year for each urban area	Media survey	Private sector firm contracted for IEC campaign

**AZERBAIJAN
PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL STAFF**

**IMPROVING PUBLIC INVESTMENT POLICY, INTEGRATED PROJECT ANALYSIS AND
PERFORMANCE ASSESSMENT IN THE PROJECT LIFE-CYCLE:
FROM KEY CONCEPTS TO PRACTICE**

**MODULE V/PART 2:
PROGRAM/PROJECT MONITORING & EVALUATION, AND PORTFOLIO
PERFORMANCE TOOL: KEY CONCEPTS AND TOOLS**

Summary of Learning Agenda and Expected Learning Outcomes

Key Themes	Expected Key Learning Outcomes
A) A Framework for Building a Results-Based Monitoring & Evaluation System	A) An enhanced grasp of the 10 steps for building a results-based M&E system (at sectoral/line agency level, with linkages to the project level)
B) Framework and approach to Improved Project Guidelines and Procedures for the PIP (using the Philippines example, for inputs/ideas for the GoAZ)	B) An improved framework for improved project guidelines and procedures for GoAZ's PIP
C) Outline of a Common Framework for Case Study Team Presentations	C) An operational understanding of a common framework for the Case Study Team Presentations
D) Preparation for Case Study Class Presentations (by teams)	D) To enhance the quality of the case study class presentation, and learning process by participants

A) A Framework for Building a Results-Based Monitoring & Evaluation System

26. The above section has outlined an “intuitive” approach to M&E, geared for projects and programs. This section will expand these principles to outline a framework for developing a M&E system within each sectoral ministry(ies)/agencies, with a focus on using the M&E system to attain results. Experience shows that taking a piecemeal and technical approach will not break through the obstacles to developing and using effective M&E systems to promote sustainable results. Azerbaijan appears to be ready to take on the challenges of adopting a results-based M&E system. Linking this system to a performance-based budgetary system generate strong synergies.

27. Step 1: Conduct a Readiness Assessment: A readiness assessment is a diagnostic tool that can be used to determine whether the prerequisites are in place for building a results-based M&E system. It provides a guide through 8 areas to determine if a country (and ministry/sector agency) has the ability and willingness to adopt and move forward with a results-based M&E system. The 8 key questions are:

- What potential pressures are encouraging the need for the M&E system within the public sector (or specific agency), and Why?
- Who is the advocate for the M&E system?
- What is motivating the champion to support such an effort?
- Who will own the system? Who will benefit from the system? How much information do they really want?
- How will the system Directly support Better resource allocation and the Achievement of Program goals?
- How will the organization, the champions, and the staff react to negative information generated by the M&E system?
- Where does capacity exist to support a results-based M&E system?
- How will the M&E system link project, program, sector and national goals?

28. Step 2: Agree on Outcomes to Monitor and Evaluate: It is important to distinguish between goals and outcomes. Goals are long-term. Outcomes emerge from goals, and are of intermediate time frame (5 -10 years). From outcomes, one derives targets (1-3 years). One cannot set indicators before determining outcomes because it is the outcomes –not the indicators – that will ultimately produce the benefits. Inputs, activities, and outputs are all derived and flow from the setting of outcomes, which is a vital step in building a results-based M&E system.

29. There is a need to consider various issues in the choosing of outcomes to monitor and evaluate, involving international development considerations (e.g., National Poverty Reduction Strategy, MDGs), national strategies and priorities. In determining the priority outcomes, it is important to build a participatory and consultative process involving main stakeholders. There is a need to develop a plan to assess how a government or organization will achieve the stated outcomes.

30. Step 3: Select Key Performance Indicators to Monitor Outcomes. Indicators should be developed for all levels of the results-based M&E system, meaning that indicators are needed to monitor progress with respect to inputs, activities, outputs, outcomes and goals. Outcome indicators will help answer 2 key questions: how will we know success or achievement when we see it? Are we moving toward achieving our desired outcomes? The “CREAM” of selecting good performance indicators is essentially a set of criteria to aid in developing indicators for a specific project, program, or policy, namely “**CREAM**”:

Clear: Precise and unambiguous
 Relevant: Appropriate to the subject at hand
 Economic: Available at a reasonable cost
 Adequate: Provide a sufficient basis to assess performance
 Monitorable: Amenable to independent validation

31. A sound guide for determining the number of indicators is the minimum number to help determine the achievement of the relevant outcome.

32. Step 4: Setting Baselines and Gathering Data on Indicators. A performance baseline is information (quantitative or qualitative) that provides data at the beginning of, or just prior to, the monitoring period. The baseline is used to:

- Learn about recent levels and patterns of performance on the indicator; and to

- Gauge subsequent policy, program, or project performance

33. There are 8 key questions that should be asked in building baseline information for every indicator:

- What are the sources of data?
- What are the data collection methods?
- Who will collect the data?
- How often will the data be collected?
- What is the cost and difficulty to collect the data?
- Who will analyze the data?
- Who will report the data?
- Who will use the data? (perhaps the most strategic question!).

34. Step 5: Planning for Improvement – Selecting Results Targeting. Targets are the quantifiable levels of the indicators that a country or organization wants to achieve at a given point in time. The factors to consider when selecting performance indicator targets are:

- Clear understanding of baseline starting point (e.g. average of last 3 years, last year, average trend, etc.)
- Funding and level of personnel resources expected throughout the target period
- Amount of outside resources expected to supplement the program's resources
- Political concerns
- Institutional capacity

The completed matrix of outcomes, indicators, baselines, and targets becomes the performance framework. It defines outcomes and plans for the design of a results-based M&E system that will begin to provide information on whether interim targets are being achieved on the way to the longer-term outcome.

35. Step 6: Monitoring for Results. A results-based monitoring system tracks both implementation (inputs, activities, outputs) and results (outcomes and goals)

Implementation monitoring is supported through the use of management tools – budget, staffing plans, and activity planning. There are a number of key principles in building a results-based monitoring system:

- There are results information needs at the project, program, and policy levels
- Results information needs to move both horizontally and vertically in the organization
- Demand for results information at each level needs to be identified
- Responsibility at each level needs to be clear for:
 - What data are collected (source)
 - When data are collected (frequency)
 - How data are collected (methodology)
 - Who collects the data
 - Who analyzes the data
 - For whom the data are collected
 - Who reports the data

A data collection system for all indicators (implementation and results) should possess 3 criteria: reliability, validity, and timeliness.

36. Step 7: The “E” in M&E – Using Evaluation Information to Support a Results-Based Management System. An assessment of planned, ongoing or completed intervention to determine its relevance, efficiency, effectiveness, impact and sustainability. The intent is to incorporate lessons learned into the decision-making process. Uses of the evaluation include the following:

- To make resource decisions
- To re-think the causes of a problem
- To identify issues around an emerging problem, i.e. children dropping out of school
- Decision-making on best alternatives
- Support of public sector reform / innovation
- To help build consensus among stakeholders on how to respond to a problem

37. Evaluations are intended to answer the following 8 types of questions:

- **Descriptive:** Describe the content of the information campaign in country X for HIV/AIDS prevention
- **Normative/compliance:** How many days during the year were national drinking water standards met? (looks for how a project, program or policy met stated criteria)
- **Correlational:** What is the relation between the literacy rate and number of trained teachers in locality? (shows the link between two situations, or conditions, but does not specify causality)
- **Cause and Effect:** Has the introduction of a new hybrid seed caused increased crop yield? (establishes a causal relation between two situations or conditions)
- **Program Logic:** Is the sequence/strategy of planned activities likely to increase the number of years girls stay in school? (used to assess whether the design has correct causal sequence)
- **Implementation/process:** Was a project, program or policy to improve the quality of water supplies in an urban area implemented as intended? (establishes if proposed activities are conducted)
- **Performance:** Are the planned outcomes and impacts from a policy being achieved? (establishes links between inputs, activities, outputs, outcomes and impacts)
- **Appropriate use of policy tools :** Has the government made use of the right policy tool in providing subsidies to indigenous villagers who need to be resettled due to the construction of a new dam? (establishes whether government selected appropriate instrument to achieve its aims)

38. There are 7 different types of evaluations, which are used to meet different needs, at different times in the program/project cycle:

(a) Performance logic chain assessment: Asks questions about the basic causal logic of the project, program, or policy (cause and effect assumptions)

Asks about the rationale for the sequence of activities of the project, program, or policy

Asks about the plausibility of achieving intended effects based on research and prior experience

(b) Pre-implementation assessment: Preliminary evaluation of a project, program, or policy's implementation strategy to assure that three standards are met: Objectives are well defined; Implementation plans are plausible; Intended uses of resources are well defined and appropriate to achievement of objectives.

(c) Process implementation assessment: Provides detailed information on whether the program is operating as it ought (are we doing things right?); Provides detailed information on program functioning to those interested in replication or scaling up a pilot; Provides continuous feedback loops to assist managers

(d) Rapid Appraisal: It allows for quick, real-time assessment and reporting, providing decision-makers with immediate feedback on the progress of a given project, program, or policy.

(e) Case Study: A case study is a method for learning about a complex situation and is based on a comprehensive understanding of that situation.

(f) Impact Evaluation: Provides information on how and why intended (and un-intended) project, program, or policy outcomes and impacts were achieved (or not)

(g) Meta Evaluation: Pulls together known studies on a topic to gain greater confidence in findings and generalizability; Addresses where there are credible supportable evaluation findings on a topic; Compares different studies with disparate findings about a topic against a common set of criteria

39. Step 8: Reporting the Findings. The findings:

- Give information on the status of projects, programs, and policies;
- Provide clues to problems
- Create opportunities to consider improvements in the (projects, programs, or policy) implementation strategies
- Provide important information over time on trends and directions

40. Step 9: Using the Findings: There are 10 uses of the evaluation findings:

- Responds to elected officials' and the public's demands for accountability
- Helps formulate and justify budget requests
- Helps in making operational resource allocation decisions
- Triggers in-depth examinations of what performance problems exist and what corrections are needed
- Helps motivate personnel to continue making program improvements
- Monitors the performance of contractors and grantees
- Provides data for special, in-depth program evaluations
- Helps provide services more efficiently
- Supports strategic and other long-term planning efforts (by providing baseline information and later tracking progress)
- Communicates better with the public to build public trust

41. Step 10: Sustaining the M&E System Within the Organization. There are six key components in building the sustainability of M&E systems:

- Demand
- Clear Roles and Responsibilities
- Trustworthy and Credible Information
- Accountability

- Capacity
- Incentives

42. To sum up, this module has progressed from a more traditional project-level M&E approach to a results-based M&E system. The latter are a powerful management tool that can be used by Governments (and its and other organizations) to demonstrate accountability, transparency and results. Results-based M&E systems should be considered as work in progress. Building the cultural shift necessary to move an organization toward results orientation takes time, commitment, and political will.

B) Framework and approach to Improved Project Guidelines and Procedures for the PIP (using the Philippines example, for inputs/ideas for the GoAZ)

Note: The class presentation will review some of the key elements of an improved system of PIP project guidelines and procedures

C) Outline of a Common Framework for Case Study Team Presentations
(note: a common framework will be presented by the class trainer)

D) Preparation for Case Study Class Presentations (by teams)
(some time will be provided to enable the Project Teams to prepare for their class presentation)



**AZERBAIJAN
PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL STAFF**

**IMPROVING PUBLIC INVESTMENT POLICY AND INTEGRATED PROJECT ANALYSIS
IN THE PROJECT LIFE-CYCLE:
FROM KEY CONCEPTS TO PRACTICE**

**MODULE VI:
SELECTED SECTOR/PROJECT CASE STUDIES:
APPLICATION OF KEY CONCEPTS AND TOOLS**

A) Approach to Project Case Studies (note: This section will be presented, as a guide for the Project Team presentations)

1. Module VI will help consolidate the application of the key concepts, principles and tools of financial and economic analysis and project performance (according to the project cycle) covered in modules II-V, contextualized for sectoral investment projects in Azerbaijan, through reviewing and re-assessing actual Azerbaijani projects in the form of project case study exercises (completed and under implementation).¹ Attachment 1 provides a project profile for the 5 projects which will be used as a tool for practical learning and applications. At the beginning of module II, each participant will be assigned to a specific project case study team (comprised of 3-5 other participants, with at least 1 participant already working on or at the project's sector/Ministry), and provided with the relevant and available project documentation. During the training modules (II-V), these specific project cases will be used to help contextualize and apply the key concepts and tools covered in the training workshop. By the time the training workshop reaches Module VI, it is expected that each participant will become intimately familiar with the assigned project being used as a case study (and its relevant documentation). Module VI will focus on providing the project case study teams an opportunity to present their case study assessment and recommendations to the workshop group, based on a number of key guiding questions (to be given to them at the beginning of the class). A role playing scenario will be created for these presentations/discussions, whereby each presenting sector team makes the structured presentation to a "PIP Technical Committee", which would review and decide on the proposal (approve, disapprove, or request further analysis/work), based on assumed project preparation and approval guidelines (arising from the training workshop).² Accordingly, the case study presentation (and class discussion, about 45 minutes per project case study) will encourage the participant project teams and other class members (who will take turns serving on the PIP Technical Committee) to consolidate and apply their gained knowledge on key concepts and tools, within the constraints of data and time. Class members (playing the role of members of the PIP Technical Committee) will be encouraged to provide critical comments/suggestions, while also participating as project case study team members and presenters.

¹ All of the case studies identified (6 projects, to enable about 4 participants per case study team) are being financed by the World Bank, and one project by the ADB (Highways Project). See Attachment 1 for a summary profile for each project.

² It is assumed that the PIP Technical Committee will be comprised of Directors from the central Ministries (MoED, as Secretariat, MOF, Cabinet of Ministers, Ecology, and any other expert requested). The Committee would review the merits of the project proposal (either Project Concept Stage or Feasibility Study stage) and compliance with assumed guidelines of integrated project analysis (consistent with international standards)

2. There will be 4 Azerbaijani sector specialists (from the PIPE Project), together with 3 trainee/resource persons from Center for Economic Reform (CER), who will serve as resource persons for each project case study team, during the training workshop, including providing assistance for some of the computer-based exercises. These resource persons, together with some workshop trainee graduates (achieving "Excellent" performance" rating), will be selected to be potential future trainers/"mentors" in project analysis and performance assessment, will be available to the trainee graduates to provide post-training workshop hands-on-assistance and mentoring (on a "demand" basis). This follow-up assistance is intended to help ensure that the improved concepts and tools will be effectively applied on-the-job, especially since the institutional "environment" and procedures are still in the "transition" process. Past training workshops (on this and other topics) have been criticized for a failure to provide this type of informal and demand-driven and on-the-job follow-up assistance.

3. The thrust and rationale of the key questions will focus on encouraging the project case study team to creatively assess/re-assess and enhance the investment project analysis and justification (with a focus on the project design alternatives, implementation and post-implementation stages) of the specific project case study assigned to each team. Attachment 2 provides some of the key "generic questions" which will be addressed during modules II-V, and to be considered by each project case study team. Some of these questions will be adapted to each project situation (with the assistance of the workshop resource sector specialists). Accordingly, this participatory co-learning approach will help achieve the learning outcome of Module VI of consolidating and deepening participant operational understanding of the application of basic concepts and tools of integrated financial and economic analysis of projects in the context of the project life-cycle.

4. Discussion of strategies for improving project prioritization, preparation and appraisal procedures and standards will also be included in this module (e.g., the role and functioning of the "hypothetical" PIP Technical Committee), with the aim of generating ideas which could provide inputs for GoAZ (coordinated by MOED). Module VI will generate discussion of ideas and possible strategies for strengthening the institutional capacity of selected agencies/work units (associated with the case study project) in financial and economic analysis, building on and contributing to the parallel work being carried out by PIP Project in strengthening the PIP process and the linkages with the macroeconomic framework, Strategic Sector Development Plans/SSDPs, Medium Term Expenditure Framework/Medium Term Budget Framework, while recognizing that these institutional improvements are in process (or planned). This latter point recognizes that the use of the tools learned in the workshop will be enhanced by encouraging the participants to apply the relevant concepts and tools in their work assignments, given that relevance of the training for resource allocation decisions. This theme will be given emphasis during the training to be provided to management from the central and line ministries, who will be encouraged to promote an improved institutional "environment" and professional commitment to applying more rigorous and transparent financial and economic analysis in all phases of the project life-cycle. It is recognized that any proposals to improve current project procedures/processes, as part of an improved PIP, will need to follow Government's improved procedures and guidance.

B) Presentation/Discussion of Project Case Studies

5. In the light of above approach, each project team will present the project to the PIP Technical Committee, and focus on the most relevant questions for their assigned project (using the key questions outlined in Attachment 2 as a general guide, and where each team is encouraged to be creative in outlining the most appropriate methodologies for project analysis and justification). **The overall question for all project teams should be: If you were to re-design the project or present a Phase 2 (for either the Project Concept or Feasibility Approval Stages, what are the main changes and improvements you would make, or approaches to secure approval from the Government. (give justification, based on the concepts and tools you have learned).** The questions with an asterisk (*) are required for all project teams, and other questions are optional, depending on their relevancy. Each project team should not exceed 30 minutes for the class presentation, use visual aids wherever possible, and diverse perspectives, to be followed by 15-30 minutes of feedback and discussion from the members of the PIP Technical Committee. Another 15 minutes will be taken for comments/suggestions by the trainer(s) and resource persons (including the GoAZ Project Coordinator for the actual project). The emphasis in the presentations should be on applying appropriately the key concepts and methods, and the rationale underpinning their points, and the main assumptions and analytical tools which could/should be applied.



USAID
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Draft for Discussion

PUBLIC INVESTMENT POLICY PROJECT
PUBLIC INVESTMENT POLICY
AND PROGRAM MANUAL

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PUBLIC INVESTMENT POLICY AND PROGRAM MANUAL

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ABBREVIATIONS

BOP	Balance of Payment
COM	Cabinet of Ministers
EPFD	Economic Policy and Forecast Dept.
FY	Fiscal Year
GDP	Gross Domestic Product
GOAZ	Government of Azerbaijan
HPPC	High Policy Planning Council
IFI	International Financial Institution
IRC	Investment Review Committee
IRR	Internal Rate of Return
JCC	Joint Call Circular
LMs	Line Ministries
M&E	Monitoring and Evaluation
MOED	Ministry of Economic Development
MOF	Ministry of Finance
MTBF	Medium-Term Budget Framework
MTFF	Medium-Term Fiscal (Financial) Framework
MTMF	Medium- Term Macroeconomic Framework
NBA	National Bank of Azerbaijan
NGO	Non-Governmental Organization
NPV	Net Present Value
O&M	Operation and Maintenance
PIP	Public Investment Program
PIP CC	Public Investment Program Call Circular
PIPP	Public Investment Policy and Program
PIPR	Public Investment Projects Registry
PPL	Proposed Projects List
PRSP	Poverty Reduction Strategy Paper
RMSM-X	Revised Minimum Standard Model-eXtended
SDP	Sector Development Plan
SOE	State Owned Enterprises
SOFAZ	State Oil Fund of Azerbaijan
SPPRS	State Program for Poverty Reduction and Sustainable Development
SPSEDR	State Program for Socio-Economic Development of Regions
SSDP	Strategic Sector Development Plan
UN's MDGs	United Nation's Millennium Development Goals
USAID	United States Agency for International Development

CHAPTER 1. INTRODUCTION

1.1. OBJECTIVES AND PURPOSES OF THE MANUAL

1.1.1. This Manual is about the public investment policy and program in Azerbaijan. Its **main objective** is to contribute to GOAZ's efforts to develop the **necessary institutional and technical capacity** of all concerned State agencies for the formulation, preparation and approval of sound public investment policy and program (PIPP).

1.1.1.1. It is also an important objective of this Manual to **strengthen the inter-linkages and consistency of development planning, budgeting, and investment programming** with each other by using the improved PIPP preparation as a bridge among them.

1.1.1.2. This Manual's last, but certainly not least, important objective is to make a strong contribution to **GOAZ's anti-corruption and democratization policies** by bringing the public investment project selection process under objective and transparent procedures and criteria.

1.1.2. To meet the above objectives, the Manual aims at strengthening the existing **institutional set-up**, improving the **current procedures and practices**, and introducing **new techniques and formats**. Since GOAZ's decision in early 1990s to move the economy to a market-based and liberal system, there has not been any systemic review and evaluation of the suitability of government institutions, procedures and techniques to the efficient selection of public investment projects. It is, therefore, quite natural that the current system needs several new or improved key institutions, procedures, and analytical techniques and formats for the formulation, preparation, and approval of a sound PIPP.

1.1.2.1. These requirements include:

- **The establishment of new institutions**, like the High Policy Planning Council (HPPC) at the Cabinet of Ministers level; the PIP Task Force and the Investment Review Committee both at MOED;
- **Adoption of new procedures** and practices like developing the PIP as a development planning and macroeconomic policy tool rather than as a projects list; improving the Sector Development Plans as a basis for sector's planning, budgeting, and investment programming inputs; adapting the PIP Call Circular to the new concept of the PIP; separating the project development process from the PIP preparation; making the project preparation and selection process involve only LMs/agencies, MOED, and MOF; and
- **Introduction of new instruments**, or their stricter observance if already being used, such as a formal consistency model in determining the PIP's overall and sectoral framework; adopting a formal approach for determining the overall and sector PIP ceilings; a completely improved PIP CC format; introducing some methods of qualitative (policy-based) as well as formal and standard cost-benefit, cost-effectiveness and other quantitative measures for project prioritization and selection.

1.1.2.2. The Manual pays utmost care to avoid introducing excessive requirements on the current system of public investment selection. Nonetheless, what have been introduced here as additional requirements, however overburdening they may seem to be, are the minimum and indispensable improvements that GOAZ needs to adopt for the efficient use of its oil resources. This is also apparent from the fact that most other CIS countries have already adopted or been adopting the similar institutional and procedural improvements as introduced in this Manual.

1.2. COVERAGE OF THE MANUAL

1.2.1. As already mentioned, this Manual is about the public investment policy and program (PIPP) in Azerbaijan, but it does not cover the whole PIPP process. Its coverage is confined to:

- the **formulation** of the public investment policy;
- the **preparation**, processing, and approval of the **public investment program** in line with the formulated investment policy; and
- the identification, preparation, processing, and acceptance of the **public investment projects** into the public investment program.

1.2.1.1. The Manual thus leaves out the implementation of PIPP and its monitoring and evaluation (M&E). The **implementation of PIPP** involves policy, budgetary, and project aspects. **Policy aspects** are essentially implemented through all macroeconomic policies, including fiscal, monetary, balance of payments, and incomes policies, and cannot be regulated by a specific manual. The **budgetary aspects** of PIPP implementation are regulated by the related procedures and practices of the State Budget and those of the other State Agencies' budgets. Project implementation also has budgetary and management aspects. Projects' budgetary issues are covered by budget procedures, as already noted, by MOF and LMs/agencies. **Project Management** is an important and separate area of specialization and should be guided and regulated by a standard public-sector-wide manual, supported by sector-specific manuals in view of widely differing features of public investment projects in different sectors.

1.2.1.2. The **Monitoring and Evaluation (M&E) of PIPP** are very important not only for assuring the efficient use of public resources but also for valuable inputs (feedbacks) they will provide to the next round of the PIPP process. It is indeed such feedbacks resulting from monitoring and evaluation of the recent and current PIPPs that will help to make the next PIPP a reconciliation of top-down and bottom-up planning processes.

1.2.1.2.1. The M&E of PIPP also has budgetary, policy, and project aspects. The **budgetary aspects** are again carried out through the existing reporting procedures and information flows of the State and other agencies' budget, though their effective use particularly for evaluation needs to be substantially improved.

1.2.1.2.1.1. The M&E of **policy aspects** of PIPP should be done by MOED's both ad hoc and periodic review and assessment of the implementation of recent and

current public investment policies and programs and reporting to GOAZ its recommendations for corrective actions and improvements on the ongoing and future PIPPs, respectively.

1.2.1.2.1.2. The M&E of project implementation in physical terms are almost non-existent at LMs/agencies and are not even considered at MOED. There is a major need to develop M&E capacity at both LMs/agencies and MOED, and to prepare a good manual to this effect, for sound project implementation and for drawing the necessary lessons for the design and improvement of the future PIPPs.

1.2.2. The coverage of this Manual also excludes budgeting of public investment spending (projects) because it defines PIPP as a policy and planning instrument, and not as a budgetary tool. Budgeting of all public capital spending should be done by MOF and all State agencies as an integrated part of their overall (including recurrent, capital, and transfer) budget formulation and implementation processes.

1.2.3. The Manual's coverage of the public sector is all inclusive. It covers all budgetary organizations, all State owned extra-budgetary funds (SOFAR and SPF), all State Owned Enterprises (SOEs) irrespective of the size of State ownership, and all local and municipal authorities. Reporting requirements cover all spending defined as "capital spending" according to the economic classification of GOAZ/MOF Budget Classification System, irrespective of the sources and types of their funding and whether they are in the form of specific projects or not.

1.2.4. The universal character of this Manual reflects its definition of PIPP as a planning and policy instrument. A meaningful analysis of the size and sectoral structure of public investment and the changes in them with respect to the national and sectoral development objectives and strategies, and the formulation of sound public investment policies and programs will not be possible unless MOED receives on a regular and timely basis full information on capital spending in required formats from all State (the public sector) agencies.

1.2.5. Finally, the timing (calendar) of the PIPP process need to be specified with statutory deadlines for each major steps/output. The Manual has specified the approximate timing of only the initial steps of the PIPP process. The calendar for the whole PIPP process must be determined in harmony with that of the State Budget process once the ongoing work on the preparation of the Budget Processing Manual is completed.

1.3. THE METHODOLOGY

1.3.1. The methodology used in this Manual in order to meet its stated objectives, with its above mentioned coverage, is based on a modular approach in terms of both its content and its development.

1.3.1.1. As for the content of the Manual, its methodology considers PIPP as comprising three modules: (i) the national and sectoral development policy framework as a

reference post for PIPP parameters over the medium-term (Chapter 2); (ii) translating this into a public investment program, which will reconcile public investment projects proposed by LMs/agencies with (i) formulated by the central ministries (Chapter 3); and (iii) the projects development from the project idea stage through pre-feasibility and appraisal stages to its acceptance into the PIP (Chapter 4).

- 1.3.1.2. Although the Manual is about the PIPP, it nevertheless regulates certain aspects of the formulation of Medium-Term Macroeconomic Framework; Sector Strategic Development Plans, and inter-linkages among planning; budgeting and investment programming. This is due to the fact that **PIPP cannot be developed as a stand-alone policy instrument**, and that its successful design and implementation depend on certain corresponding improvements in related policy instruments, which are in any case needed for many other equally, if not more, important reasons. The Manual, however, limits its **interest in such “complementary” areas** to the extent relevant for the formulation of a sound PIPP.
- 1.3.1.3. Development of the Manual was also carried out through a modular approach. MOED started in April 2005 working, with the support of TA from the USAID/PIP Project, on a program for the enhancement of relevant State agencies' capacity for improved PIPP formulation. This program was scheduled to complete a series of technical tasks by mid-2007 to cover all key areas of the public investment program preparation and project appraisal. **These tasks, which were discussed with and disseminated to all relevant stakeholders, have then formed the basis of this PIPP Manual.**
- 1.3.1.4. Finally, this Manual is certainly **not a teaching or training manual**. Nor it is an **operational manual** explaining how some key technical tasks to be performed. It is rather a **“procedural manual”** or perhaps coming close to a guide-book, explaining how and through what steps the public investment policy and investment program should be prepared in Azerbaijan in order to ensure the right outcome, provided that the required technical work is also done satisfactorily. It would not, however, be possible to undertake “good technical work” on PIPP and to produce “good PIPP” without such a Manual because the adjective “good” in this case can only be assured by the procedures of the kind developed in this Manual.
- 1.3.1.5. Though characterized as a “procedural manual”, its long list of extensive annexes on almost all PIPP-related important operational issues bring it close to an operational manual. In addition, an accompanying CD is providing for reference purposes a rich collection of most “reputable” manuals in the main PIPP-related areas, namely, budget, public expenditure management (PEM), and project appraisal.

1.4. ESSENTIAL DEFINITIONS

CHAPTER 2. PUBLIC INVESTMENT POLICY AND ITS INTEGRATION WITH PLANNING AND BUDGETING

2.1. STRATEGIC MACRO-PLANNING PROCESS

- 2.1.1. PIPP is an integral part of government planning and budgeting activities.** This results from the fact that every phase of the process of public investment development and appraisal is closely linked with each other as well as with the national and sectoral development objectives and strategies. This integrated nature of the project development and appraisal in the public sector will manifest itself throughout the Manual (see **Annex 1** for a condensed illustration of the subject).
- 2.1.2.** The GOAZ formulates and implements its public investment policy and program (PIPP) for the next fiscal year plus the following three years in order to most effectively use the country's limited resources for attaining the medium- to long-term national and sectoral development objectives. Hence, the PIPP process is an integral part of the national and sectoral development planning and budgeting processes. This will be achieved by integrating the formulation and preparation processes of PIPP with that of the development plans (e.g., SPPRSD, SPSEDR, and SSDPs) and the government budgets (State Budget, Consolidated Budget, and MTBF). This Manual, therefore, refers to some existing as well as new (proposed) practices in planning and budgeting, even though its main concern is public investment programming.
- 2.1.3. Setting national and sectoral development objectives and strategies:** Total public investment and its distribution by sector and by region over the medium-term will be estimated as part of the same exercise with respect to total investment in the economy. This in turn requires prior identification of national and sectoral development objectives and strategies. The latter is essentially a political decision made by the President on the basis of appropriate technical work prepared, under the guidance and supervision of the High Policy Planning Council (HPPC), jointly by MOED (HPPC Secretariat), MOF and NBA (see **Annex 2** for the composition and main functions of HPPC).
- 2.1.3.1. Early in the fiscal year the President will request HPPC to undertake a review of recent economic developments and an assessment of medium-term prospects.** This review and assessment will be prepared by MOED jointly with MOF and NBA and discussed at an HPPC meeting by **end-January**, resulting in the President tentatively identifying the new medium-term national and sectoral development objectives and strategies.
- 2.1.3.2. MOED will prepare, jointly with MOF and NBA, and submit by end-February to HPPC three scenarios of development (the base-, low-, and high-cases of MTMF)** for the next four years by using a formal consistency model (e.g. the WB's RSM-X), identifying annual growth rates of overall and sectoral GDPs, annual inflation, budget and BOP current account balances, total and public investment by sector, and broad sectoral spending ceilings (further details are provided in **Annex 3**).

- 2.1.3.3. Parallel to MOED-led work on the MTMF scenarios, the broad budgetary targets, including sectoral spending ceilings, will be developed by MOF-led work into the three corresponding scenarios of Medium-Term Fiscal (Financial) Framework (MTFF), with detailed estimates/prognoses of all revenues, expenditures (current, capital and transfers), and financing transactions of all public sector agencies. MOF submits these MTFF scenarios to HPPC by mid-March.
- 2.1.3.4. After appropriate discussions of these scenarios of both MTMF and MTFF, HPPC will decide on the base-case scenario of each for the next four years and recommend them to the Cabinet of Ministers (COM) by end-March. Once approved by the COM, MTMF and MTFF will serve as the basis of the Joint Call Circular (JCC) (see below) issued by the COM by mid-April to guide all government agencies in their planning, investment programming, and budgeting work in the current year.

2.2. STRATEGIC SECTOR DEVELOPMENT PLANNING (SSDP)

2.2.1. SSDP reconciles and integrates top-down and bottom-up planning with each other.

- 2.2.1.1. The JCC will include the most recent set of medium-term national and sectoral development objectives, strategies and spending limits as well as appropriate guidance and instructions to be observed by all agencies in preparing their SSDPs (or updating the existing ones) and their submissions to MOED and MOF for planning and budgeting documents. What appears to be a top-down planning process in this case, however, already has significant reconciliation with bottom-up planning built in the process: This is because JCC is based on the review and assessment by both line and central ministries of recent sectoral developments, outcomes of major projects in all sectors, and the progress made in the implementation of SSDPs.
- 2.2.1.2. Each line ministry/agency will forward the JCC, together with its own instructions and guidance, to its departments and field offices, asking them to send to the LM/agency head-office all requested information and their spending requests with appropriate justifications. LM/agency will then mould such information and spending programs (bottom-up planning) into its SSDP in line with the guidance and instructions of the JCC (top-down planning).
- 2.2.1.3. This reconciliation of bottom-up and top-down planning processes is further facilitated by all LMs/agencies using the same structural format for their SSDPs as shown in Annex 4. Using a common SSDP format by all agencies will enable MOED and MOF to check their consistency and feasibility with respect to the overall development objectives and constraints as well as with each other.

2.2.2. SSDP is an “operational document” as distinct from “a wish list of projects”.

- 2.2.2.1. Every LM/agency charts in its SSDP the main contours of expected developments in its sector with adequate explanation of how they would be

realized (i.e., through what strategies, policies and projects, and with what resources).

2.2.2.2. SSDPs are prepared usually for 10 to 20 years. Hence, it is difficult for LMs/agencies to assure the realism and operational value of SSDPs. LMs/agencies will, therefore, annualize the next four years of their SSDPs as a rolling medium-term development program of their sectors. The annualized part of any SSDP should include only those programs and projects that can be realized through funding requested in the LM/agency's budget and PIP submissions to MOF and MOED, respectively.

2.3. THE PIP IS A POLICY AND PLANNING DOCUMENT

2.3.1. PIP is a policy and planning rather than budget document. It does not provide budgetary commitments and spending authorization to LMs/agencies. It is the State Budget prepared by MOF and approved by the Milli Mejlis that can authorize LMs/agencies to undertake appropriate capital spending. Hence, those PIP projects and programs to be undertaken by the budgetary agencies should have corresponding spending entries in the State Budget itemized and classified by administrative, functional and economic categories.

2.3.1.1. The preparation of PIP as a policy and planning document is explained in the next chapter, while the main content of its policy analysis is explained here.

2.3.2. The PIP will analyze the recent and current public investment policies and performances; derive lessons from them; recommend appropriate public investment policies to help attain the national and sectoral development objectives over the medium-term; and identify for inclusion in the State Budget the major public investment projects and other capital spending proposals in line with the proposed public investment policies.

2.3.2.1. As distinct from developed market economies, where the main task of public investment is to refine resource allocation at the margin, the **PIP in Azerbaijan** should be used as an instrument for **sustained economic development with stabilization,** and changing the structure of asset ownership and production in the economy.

2.3.2.2. MOED will therefore present in the PIP an analysis of recent, current, and expected developments in the overall size of public investments with respect to the national and public sector resource envelopes and assess its appropriateness in terms of its contribution to economic stabilization and sustained development.

2.3.2.2.1. This in turn requires an analysis of the overall size of the PIP with respect to total amount of investment in the economy, given the desired role of the GOAZ in the economy and the size of financial resources of the public sector.

- 2.3.2.3. GOAZ has long decided that Azerbaijan will develop as a market-based economy and **the government's role will gradually be reduced to providing public services** and regulatory functions, except where market forces cannot prevent the emergence of natural monopolies and where large social externalities and limited private profitability are involved (e.g., education, health, and defense).
- 2.3.2.3.1. The PIP will accordingly review and evaluate both the progress that has been taking place in the **privatization program** through the end of PIP period; and public investments in general and by SOEs in particular vis-à-vis the privatization program (i.e., should State continue investing in SOEs and areas destined for privatization?).
- 2.3.2.3.2. The **change in asset ownership** for transition of Azerbaijan to a market economy will also require that the PIP evaluate the **rationale of public investment programs** and projects in terms of government role in the economy. This will help diagnose at what pace GOAZ has been moving towards a market-based economy.
- 2.3.2.3.3. The PIP will also review and evaluate to what extent the composition of its projects content contributes to Azerbaijan's **transition to a private-sector-led economy**, particularly by enhancing productivity of private investments and social justice programs (e.g., investments in infrastructure, health, education, and public safety).
- 2.3.2.4. Since independence, GOAZ has been aiming at **changing the structure of production** in Azerbaijan in three major directions: (i) moving away from dependence on the former Soviet economy towards integration with world economy; (ii) developing the non-oil sectors; and (iii) promoting activities and regions that make greater impact on poverty reduction.
- 2.3.2.4.1. Having committed to transition to a **private-sector-led market economy**, GOAZ has been developing the necessary **business and investment environment** for the private sector to undertake the desired transformation in the structure of overall production along the directions noted above. To this end, the government will use the **public investment policy** as one of the most effective tools to **guide and facilitate private sector activities**.
- 2.3.2.4.2. The PIP will therefore review and evaluate the recent and current public investment policies in terms of their possible contribution to the **desired transformation of production structure**, and propose necessary revisions and improvements in them to enhance their effectiveness over the next PIP period.
- 2.3.2.4.3. The above analysis and recommendations for the next PIP period will be based on the functional allocation of past and future public investments both across and within sectors in relation to the public-private sectors' role in the economy and the objectives for structural change in production.
- 2.3.2.5. Finally, the public investment policy will aim at attaining its objectives, both those which are noted above and others that may be included in the annual JCCs, in most

efficient and sustainable ways. Hence, the PIP will evaluate the recent, ongoing, and proposed public investment policies to diagnose if their formulation process included the necessary mechanisms for ensuring: (i) the aggregate fiscal discipline; (ii) sound prioritization of investment programs and projects; and (iii) technical efficiency and sustainability of capital expenditures.

2.3.2.5.1. It will be possible to keep the public investment policy from having adverse effects on the aggregate fiscal discipline with the help of appropriate macroeconomic and sectoral planning procedures and instruments as explained above. Sound prioritization of investment expenditures requires, first, observing strategic prioritization in functional allocation of total public investments across and within sectors, as explained above, and secondly, undertaking economic and social cost-benefit or cost-effectiveness analyses, which will be explained in the next chapter. Finally, the PIP will evaluate technical efficiency and sustainability of past and proposed public investment policies. This will in turn require looking into whether the PIP is accompanied by adequate budgetary allocations for recurrent expenditure requirements of its projects, particularly with the right balance between wage and non-wage (O&M) recurrent expenditures.

2.4. INTEGRATION OF PLANNING, PUBLIC INVESTMENT PROGRAMMING, AND BUDGETING

2.4.1. It is of crucial importance to ensure that both the plans (SPPRSD, SPSEDR, and SSDPs) and the PIP will be fully implemented and that the Consolidated/State Budget will serve to attain the national and sectoral development objectives of the country.

2.4.1.1. The statutory responsibility for the preparation of the budget documents (including State Budget, Consolidated Budget, MTBF, and their attachments as shown in the Budget System Law) lies with the MOF. Similarly, the preparation of the Public Investment Program is the responsibility of MOED. The State Programs for Poverty Reduction and Sustainable Development and for Socio-Economic Development of Regions are prepared by the specially established two Secretariats under MOED. The Sector Strategic Development Plans (SSDPs) are prepared by LMs/agencies.

2.4.1.2. The plans' aspirations in terms of national and sectoral developments over the medium-term would be meaningful only if they are based on realistic estimates of budgetary (funding) and other constraints. Otherwise, those activities, programs, and projects, which are not provided for in the LMs/Agencies' submissions to MOF and MOED for the rolling medium-term Budget and the PIP, will be redundant and will only damage the operational value of the plan documents.

2.4.2. With this Manual, GOAZ is adopting three important practices to ensure complete harmony and integration of these key policy instruments with each other. These practices, which have already been referred to above, are the following:

- Adopting a central coordination body (HPPC) to guide and supervise the necessary technical work to prepare MTMF and MTFF (or MTBF) in line with the medium-term national and sectoral development objectives and strategies announced by the President;

- Based on the MTMF and MTFF, issuing appropriate guidance and instructions to all state agencies, **in a single document (JCC)**, for the preparation of their annual submissions to MOF and MOED for the budget and plan documents, and asking them to present their responses for the Budget, PIP, and SPPRSD also in a single document; and
- Requiring all LMs/agencies to prepare (or revise) their **Sector Strategic Development Plans (SSDPs)** in line with the national and sectoral objectives and strategies of JCC and with the template recommended by MOED (Annex 4), and to base all their submissions for the budget and plan documents upon their SSDPs.

CHAPTER 3. PUBLIC INVESTMENT PROGRAM (PIP)

3.1. COVERAGE AND COMPOSITION OF PIP

3.1.1. The coverage and composition of PIP should be determined according to its purposes. This Manual has been prepared with the understanding that GOAZ wants to use the PIP as a major policy and planning instrument in the successful management of national and sectoral development of the Azerbaijan economy over the medium- to long-term.

3.1.2. Hence, the PIP should have a universal coverage. All state agencies, including state owned enterprises, will report to MOED and MOF all necessary information on their investment and other capital spending--last year's actual, current year's expected actual, and the next four years' proposed figures. The necessary reporting details and instructions will be provided by the annual JCC/PIP CC as explained below.

3.1.2.1. A template for the Azerbaijan public sector's overall balance of uses and resources is given here in Annex 6. This presentation provides not only an overall picture of public sector financial balances but also an invaluable analytical tool, particularly if its income, expenditures, savings, and investment data correspond to that of national income accounting. This requires the preparation of a special manual explaining how to arrive from GOAZ data to national accounting data for the concepts used in the public sector balance table.

3.1.2.2. With the help of the public sector's overall balance table, the PIP will compare the size of public investment against that of public savings by each major component of the public sector. This is in fact an indispensable analytic presentation needed for the analysis of not only the public investment policy but also the overall macro balances of the economy. It will enable GOAZ to see what segments of the public sector is contributing, or not, to **inflationary pressures** in the economy and how such pressures are absorbed or not by each segment's resorting to capital transfers from the private sector and foreign borrowing.

3.1.2.3. The presentation/format of the PIP should facilitate its usage by the GOAZ as a policy and planning instrument. There is not an internationally accepted standard format of PIP. However, a sample format for the Azerbaijan PIP, in the form of an annotated outline, is provided here in **Annex 7**, largely reflecting the main contours of public investment policy analysis described in the previous chapter.

3.1.3. This Manual requires that all LMs/agencies report all necessary PIP-related as well as other capital spending information to MOED and MOF as grouped by functional, economic, and administrative classification; by the central authorities, local authorities, municipalities, and SOEs (those included in the privatization program shown separately); and by financing whether from the State Budget, own funds, domestic borrowing, and external funding. Finally, the major projects will be listed separately with adequate information on each to inform MOED/MOF as well as the general public of justification for its inclusion in the PIP.

3.1.3.1. This will enable both the MOF to properly include all capital spending of all budgetary agencies in the State and Consolidated Budget and the MOED to analyze such spending as noted in #2.3.

3.1.3.2. In order to facilitate the whole process of PIP reporting and analysis, MOED will maintain a Public Investment Projects Registry (PIPR), which will form the introductory section of the PIP Database. For PIPR purposes, MOED will introduce a public-sector-wide “investment projects numbering system” to be used by all LMs/agencies. A sample of such numbering system could be as follows: **2006 C 02 0037** (or **2006C020037**), which indicates that the project was first accepted into the PIP in 2006; belonged to a sector whose main code is “C” and to a sub-sector coded with “02”; and was numbered by its LM/agency with “0037”.

3.2. PREPARATION OF THE PIP CALL CIRCULAR

3.2.1. The PIP preparation process will start early in the fiscal year with the initiative of the President’s Office to have the national and sectoral development objectives and strategies reviewed and revised, as needed, over the medium-term (more specifically, over the next four years). This will involve developing a MTMF by MOED and a MTF/MTBF by MOF that will serve as the common framework for all plan and budget documents as well as for the formulation of public investment policy and program. The previous Chapter indicated the procedures to be followed and the main parameters to be worked out for these purposes. The present chapter, on the other hand, provides guidance and instructions on how to translate those objectives and strategies and investment policy parameters into an effective PIP, starting with the preparation of a satisfactory PIP Call Circular.

3.2.2. The national and sectoral development objectives and strategies and appropriate public investment policies to realize them are transformed by the MOED, jointly with MOF and the SPPRED Secretariat, into a Joint Call Circular (JCC) providing necessary guidance and instructions to all State agencies on how to prepare their submissions to the next SPPRS (or its Annual Performance Review) and the rolling medium-term budget and PIP.

3.2.2.1. The JCC is composed of four distinct but interrelated parts:

- a) An overview of national and sectoral development objectives, strategies, priorities and expected outcomes;
- b) Guidance, instructions, and information requests regarding the sectors’ submissions, based on the overview in (a) above, for the preparation of the next SPPRS or its Annual Performance Review (that may be called “SPPRS Call Circular”);
- c) The same as in (b) for the preparation of the rolling medium-term Budget (Budget Call Circular); and,
- d) The same as in (b) for the preparation of the rolling medium-term Public Investment Program (PIP Call Circular).

3.2.2.2. Since this Manual is about the PIPP, it essentially regulates the PIP-related part of the JCC, naming it as the **Joint/PIP CC**. The prefix “joint” is kept in order to emphasize the crucial importance of having a full harmony between the three call

circulars noted above. Annex 5 provides the 2007-10 PIP Call Circular as an example, though it still has two important elements missing, namely (i) the macroeconomic and sectoral framework, and (ii) the sectoral spending ceilings.

3.2.2.3. The JCC (or the JCC/PIP CC) will give as much emphasis on **providing adequate guidance and instructions to LMs/Agencies** as on information requests from them, particularly because the former will assure the success of the latter. Such guidance and instructions will identify in detail the national, sectoral, regional, and project-wise strategies and priorities based on the objectives and strategies envisaged by the rolling MTMF and MTF. MOED will also provide in the annual Joint/PIP CC detailed, if necessary sector-oriented, guidance and instructions regarding the interpretation and implementation of priorities; specific concerns relating to particular shortcomings in recent years' practices; appropriate warnings of potential risks; new approaches and techniques to be adopted in investment programming, and the like.

3.2.2.4. The Joint/PIP Call Circular requests information from line ministries in three categories:

- **Sector related information** that will help with the formulation of public investment policy and program for the next four years;
- **Information on each project** that the line ministry proposes for inclusion in the next rolling medium-term PIP; and,
- **Capital spending proposals** other than "public investment projects".

3.2.2.5. In the **sector related information section** (Form 1) of the Joint/PIP CC, all state agencies will provide the following **information and analysis** on their sectors:

- a) **General description of the sector** and its main economic and administrative structure; its relative importance in the economy, particularly in relation to GOAZ's poverty reduction and regional development policies; and the sector's recent (e.g., past five years) performance.
- b) **Recent reform programs** implemented in the sector; the remaining problems and shortcomings; and the impending and proposed reform programs.
- c) The medium-term development objectives of the sector; the proposed strategies and policies to that effect; and the **proposed investment programs and projects** to implement them.
- d) A **review of the public investment programs in recent years** (e.g. past five years), with particular emphasis on its: (i) changing functional, economic and social priorities; (ii) changing composition of funding; and (iii) implementation difficulties resulting in projects being delayed or left incomplete.

3.2.2.6. The **project information section** (Form 2), also called the **Project Brief** when used as a stand-alone document, has several sub-sections as follows (Annex 7):

- a) **General Information on the project** (Form 2.1): Describe the identities of the Project (its sector, agency, name and number, and location) and the staff involved in its preparation and implementation, and its main characteristics (its product or service, size -capacity and total cost- and the beginning and completion dates).

- b) **Funding of the project by the State Budget, own resources, external sources, and others, as of the end of the past year and the annual estimates for the current and next three years (Form 2.2).**
- c) **Information on external funding of the project (Form 2.3), including the terms of credit, and its disbursement plan according to both the project document and the PIP.**
- d) **The progress of the on-going project (Form 2.4) in terms of actual annual expenditures, broken into domestic and foreign funding, as compared with that envisaged by the project document and by the PIP.**
- e) **A brief appraisal and justification of the project (Form 2.5). This is the most important set of information requested from the LMs/Agencies. It includes:**
 - The objectives and expected results of the project in terms of its contribution to the main national and sectoral development objectives;
 - The current status of the project, i.e., at what stage of the project cycle it is; how are the preparations for the next stage(s); is it on time with the project implementation schedule?
 - Current and potential problems met during the project's current and future stages, and what measures are envisaged to deal with them?
 - The main indicators of the project's selection criteria, e.g., NPV, IROR, cost-effectiveness, etc.

3.2.2.7. The State Budget also includes capital expenditures which are not so far included in the PIP. These are mostly new constructions and major renovation and repair works by LMs/agencies largely involving office buildings, housing schemes, local education and health facilities, and infrastructures of secondary importance. They must be also covered by the PIP if the latter is to be undertaking a full review and analysis of public investment policies in terms of their impact on economic stabilization and national and sectoral development prospects. Therefore, Form 3 of the Joint/PIP CC requires such information from LMs/agencies for the past several years (actual), the current year (expected), and the next four years (the next FY and 3 subsequent years), with a description of the project (spending), its amount, and expected outcomes.

3.2.2.8. Detailed explanation is provided in Chapter 4 below about how LMs/Agencies will prepare their responses to Joint/PIP CC, including prioritization of their public investment programs and projects.

3.3. THE PIP PREPARATION PROCESS

3.3.1. MOED is responsible with the preparation of the PIP along the lines of the sample format given in Annex 7. The process involves two distinct but strongly interrelated tasks: (i) the formulation of the GOAZ's **public investment policy** over the medium-term based on a sound analysis of recent developments and current prospects of the economy as well as on the national and sectoral development objectives and strategies specified in the JCC; and (ii) identifying the annual list of major **public investment programs and projects** as well as other relatively less important capital spending schemes of all state agencies that will altogether reflect the implementation of the government's public investment policy.

- 3.3.1.1.** In order to greatly facilitate the PIP preparation process, the LMs/Agencies will provide detailed and well-prepared **responses to all requirements of the Joint/PIP CC on the basis of well-prepared SSDPs**. The presence of such a SSDP will also be great help to the LM/Agency in providing satisfactory response to the Joint/PIP CC. The basic features of a well-designed SSDP are explained in **Annex 4**.
- 3.3.1.2.** The preparation of the next rolling (i.e., four-year) PIP will not be difficult mainly because: **(i)** it will essentially involve **updating and revising** the last three years of the existing PIP and extending it by a new fourth year; and **(ii)** most of the work required for the PIP are MOED's **essential but routine work** of continuing nature (e.g., monitoring the progress of the economy, evaluating SSDPs, appraising the LMs/Agencies' project proposals). MOED will, however, have difficulty only in the next one year or two while adopting the new procedures and practices of this Manual.
- 3.3.1.3.** MOED's work on preparation of the PIP is **led and coordinated by a Task Force headed by the Deputy Minister (Economic Work)** and comprising all department director(s) and division chiefs responsible with PIP-related work. Once the new JCC (Joint/PIP CC) is approved and sent out to all state agencies by the COM, all relevant MOED department(s) and divisions will start reviewing and assessing the existing PIP for possible revisions and improvements in light of the content of JCC and in anticipation of LMs/Agencies' responses to it.
- 3.3.1.4.** The preparation of LMs/Agencies' responses to the Joint/PIP CC will be covered in the next chapter.
- 3.3.1.5.** **Following the receipt of LMs/Agencies' PIP submissions by MOED, the sector divisions will undertake a careful review and assessment of the PIP submissions in their sectors**, in light of guidance and instructions of the Joint/PIP CC. Each sector division will also involve the Macroeconomic Policy, the Fiscal-Monetary, and the PIP divisions as well as the SPPRED and the Regional Development Secretariats in this review and assessment process and obtain their written views on the concerned LM/Agency's PIP submission.
- 3.3.1.5.1.** Based on these views, each sector division will have initial consultations with the appropriate department/division of the concerned LM/Agency to sound out its views on the MOED's tentative assessments of its PIP submission. Each MOED sector division will then submit to the PIP Task Force its recommendations on the PIP submission of each LM/Agency covered by the division.
- 3.3.1.5.2.** The PIP Task Force will request the Macroeconomic Policy Division to **sum up all individual LM/Agency PIP submissions and evaluate the aggregate as well as the sectoral sums against the MTMF and MTF and also for inter-sector consistency**. For this evaluation, the Macroeconomic Policy Division will rely on the cooperation and support of all other MOED divisions as needed.
- 3.3.1.5.3.** The PIP Task Force will then review and evaluate each LM/Agency's PIP submission in light of the reports of MOED divisions and **decide on the MOED's**

negotiation position vis-à-vis each LM/Agency. MOF representative(s), who must have already been provided with all appropriate briefing documents, will also participate in the PIP Task Force meetings and will contribute to the formulation of MOED negotiation position on each LM/Agency's PIP submission.

3.3.1.5.4. The MOED Director in charge of sector work will first convey the MOED's position on each sector PIP to his counterparts at all LMs/Agencies and **then invite each LM/agency to a reconciliation meeting, which will be attended also by the MOF representative(s).** The above-described process of MOED's internal review and assessment of sector PIP submissions will produce strong grounds for the MOED position on each submission. This will enable MOED/MOF to jointly convince without much difficulty the LMs/Agencies to accordingly revise their PIP submissions.

3.3.1.5.5. Any remaining differences between MOED and LMs/Agencies regarding the latter's PIP submissions will again be taken up and resolved, if possible, at a final round of **meetings between the Minister of Economic Development and each and every Minister/Head** of individual LMs/Agencies before the final draft PIP is submitted to MOF for incorporation in the State/Consolidated Budget. Should there still remain any unresolved matters between MOED and the LMs/Agencies, they will then become part of budgetary negotiations between MOF/MOED and the latter.

3.3.1.6. In parallel to the negotiations between MOED and LMs/Agencies, the Macroeconomic Policy Division of the former will be drafting the text of the rolling medium-term PIP by appropriately integrating relevant information and data from MTMF, MTFF, and all the review and assessment reports by MOED divisions on individual LMs/Agencies' PIP submissions. Guidance on the analysis of public investment policy and a sample annotated outline of the PIP are provided above in #2.3 and Annex 6, respectively.

3.4. APPROVAL OF PUBLIC INVESTMENT PROGRAM

3.4.1. Following the completion of negotiations with individual LMs/Agencies, the MOED management will send the final draft PIP to MOF for its concurrence. Since MOF staff has already been involved in its preparation by MOED during both the formulation of Joint/PIP CC and negotiations with LMs/Agencies, both ministries are expected to readily agree on the final draft PIP.

3.4.2. MOED will submit the draft rolling PIP to HPPC for review and then recommendation to COM for its approval. HPPC will assess the draft PIP in light of the guidance and instructions of the Joint/PIP CC as well as new information and comments provided by all ministries and also resolve any remaining differences between MOED and other ministries by acting as the final referee. **HPPC will then approve the final draft PIP and send it to COM for approval** as the GOAZ's public investment policy, programming, and projects document rolling for the next four years, including the next FY and three outer-years.

3.4.3. Once the HPPC/COM-approved PIP is sent to all State agencies, it will become a binding document for the preparation of the capital budgets of both individual LMs/Agencies and the State/Consolidated Budget.

CHAPTER 4. PUBLIC INVESTMENT PROJECT CYCLE

4.1. PIP AS PROJECTS PLANNING FRAMEWORK

- 4.1.1. The Public Investment Program (PIP) is composed of two parts: (i) an analysis and evaluation of the public investment policy; and (ii) all public investment projects and other public capital expenditures of all State Agencies (including the budgetary, extra-budgetary, and non-budgetary government agencies, local governments, and state-owned enterprises) to implement the former.**
- 4.1.2. Both the size and sectoral composition of the PIP projects content will be determined essentially through a top-down planning process comprising MTMF, MTFF, and JCC.**
- 4.1.3. The programs and projects content of the PIP will, however, be determined on the basis of LMs/agencies' submissions to MOF and MOED for capital spending and investment project proposals. Such proposals will be developed by LMs/agencies in response to the Joint/PIP CC through a bottom-up "projects planning process" starting with the public, civil society and NGOs' participation in the public investment process.**

4.2. RESPONSE TO THE JOINT/PIP CALL CIRCULAR

- 4.2.1. The Joint/PIP Call Circular (Annex 4) will provide line ministries with necessary instructions and guidance regarding 4.1.1. - 4.1.3. The preparation of the Joint/PIP CC was explained in Chapter 3, while this chapter aims at helping LMs/agencies to prepare their response to it.**
- 4.2.2. Azerbaijan has already been practicing with a Medium-Term State Budget and a Medium-Term PIP since 2003 (?), though they still need to be developed and adopted into a formal and systematic planning and budgeting process. The "medium-term" covers a four-year period: the next budget year plus the following three years. The most significant implication of this is that information required by the Joint/PIP CC will be provided by essentially updating and revising last year's sector submission with an addition of the fourth outer-year to it.**
- 4.2.3. In addition, a LM/agency's response to the Joint/PIP CC will be further facilitated by its having a Sector Strategic Development Program prepared according to section 2.2 above. This is also true with respect to line ministries' responses to the Joint/Budget CC and the Joint/PRSP CC. Line ministries are therefore requested to give the first priority in their planning and budgeting work to the preparation of an "operationally meaningful" (i.e., realistic and plausible) SSDP.**

4.3. DETERMINING THE PROJECT CONTENT OF PIP

4.3.1. A line ministry's submission to MOF and MOED for its investment projects and other capital spending proposals over the next four years **must** all be both within its sector **spending ceiling** and **necessary and sufficient to achieve its sectoral development** objectives envisaged by its SSDP and by the SPPRSD and SPSEDR.

4.3.1.1. As already noted, the line ministries will prepare new SDPs or improve the existing ones with the next four years' program annualized so as to match their submissions for the medium-term rolling budget, PIP, and SPPRSD. This approach is preferred over the alternative of having a separate sector MTEF because it is easier and more effective in linking sector medium-term budget and PIP with its SSDP. Thus, each line ministry's investment projects and other capital spending proposals will be taken from its existing or new SDP.

4.3.1.2. Each new budget and PIP preparation will be an opportunity for line ministries to revise and update not only their rolling medium-term PIPs and budgets but also their SSDPs. As a result, LMs/agencies may include some new projects and revise or even cancel some existing ones in their updated SSDPs.

4.3.1.3. LMs/agencies will submit their proposed projects in a Proposed Projects List (PPL) with following information (see Annex 8 for a sample):

- a) Type of investment (new, on-going, other);
- b) Source of funding (i.e., government, aid agencies, other domestic or external sources);
- c) Previous year budget allocation;
- d) The cost and expenditure pattern of the project: Total estimated costs; cumulative costs incurred; and balance required to complete; and
- e) Required funding over the next four years (annualized).

4.3.1.4. Each sector's PPL is actually a summary presentation of its all individual Project Briefs (i.e., based on the project information part of the JCC/PIP CC), which provide detailed information on each investment project proposed for the next rolling PIP (for a sample, see Annex 7).

4.3.1.5. A **Project Brief** should:

- a) Indicate convincingly that the proposed project is consistent with national and sectoral development objectives and strategies;
- b) Carefully evaluate the project by considering its (i) specific objectives; (ii) costs; (iii) implementation mechanisms; (iv) recurrent cost requirements, and (v) other relevant criteria;
- c) Identify the projects that are delayed; and,
- d) Schedule the necessary O&M expenditures so as to facilitate financial planning of the project.

4.3.1.5.1. A **Project Brief** will be based on either a **feasibility or pre-feasibility report**, without which no project can be included in the next two years' PIP. However, the

Project Brief for a project to be included in the third or fourth year of the PIP could be based on a **Project Concept Paper**.

- 4.3.1.5.2. A Project Brief is thus a vehicle to convey to MOED and MOF a LM/Agency's proposal for inclusion in the next medium-term PIP of a project out of its projects pipe-line. In other words, a **LM/Agency's project proposals** for the next PIP should not be "**cooked up**" after the PIP CC is received, but instead be based on well thought-out projects in its **projects pipe-line**.
- 4.3.1.6. Potential projects in the projects pipe-line of a LM/agency are in one of the five **stages of preparedness**: (a) Project Idea; (b) Project Concept Paper; (c) Project Pre-Feasibility Report; and (d) Project Feasibility Report; and (e) Project Appraisal. A LM/Agency with a recently prepared long term (10 to 15 years) SDP will have in its projects pipe-line all projects at different stages of preparedness identified as necessary for the achievement of the sector development objectives. As the years go by, however, changing economic and social conditions may require some SDP projects be dropped or revised while new projects may need to be added in the projects pipe-line. This Manual's requirement that the first four years of SDPs should be annualized in line with the sector's budget and PIP submissions will actually keep SDPs and their projects list continually updated.
- 4.3.1.7. All "Project Ideas" will have to be moved into the upper stages before they can be considered by MOED and MOF for the next PIP and the State Budget. A project's progress to the higher stages of preparedness will be decide after its **careful scrutiny against a number of criteria** initially by its sponsoring LM/Agency and then by MOED and MOF. This scrutinizing and selection process is also called the **prioritization of projects**, which essentially amounts to allocating limited resources among competing uses. Both the process and the prioritization criteria used in moving a project idea up the project preparedness stages into the PIP are explained below in Sections 4.4 - 4.7.

4.4. PROCESSING PROJECTS INTO PUBLIC INVESTMENT PROGRAM

- 4.4.1. "Project Ideas" may come to a LM/Agency's relevant department (e.g., Planning, Finance, Budget, etc) **from widely varied sources**, including an individual member of the public, a private investor, NGOs and civil society, an official of the Ministry or any other ministry, MOED's PIP and sector divisions, etc. These ideas may **originate from** SPPRSD, SPSEDR, President's statements, other recent GOAZ documents, former or on-going projects, donors' reports, etc
- 4.4.2. These Project Ideas will be discussed and evaluated by the top management of the LM/Agency within its routine work program. If a project idea is considered worth of further attention, the Management decides to include it in the LM/Agency's projects pipe-line, making it a candidate for the next stage, i.e., preparation of a **Project Concept Paper**.
- 4.4.3. A "Project Concept Paper" will be **prepared by the LM/Agency's** relevant department in charge of project development and provide a first formal analysis of a project idea that promises a significant contribution to the national and sector

development objectives and strategy. The preparation of a concept paper is the most appropriate stage for the LM/agency's consultations with all potential stakeholders of the project, particularly the grassroots and the interested NGOs and civil society.

4.4.4. The Concept Paper will essentially contain the same information as will later be required for the Project Brief (see # 4.3.1.5). Such information at this stage will be based on tentative estimates of the project unit of the LM/Agency without going into their verification. The purpose is to **highlight the salient features of a particular "project idea"** for a potentially good project without spending much time and resources (see Annex 9 for a sample Project Concept Paper).

4.4.4.1. The **Project Concept Paper** will be approved by the top Management of the sponsoring LM/Agency according to its own internal procedures that may differ from one agency to the other. The Concept Paper will then be **submitted to MOED for review and evaluation.**

4.4.4.2. MOED/PIP Division will obtain the written views of other relevant MOED Departments/Divisions (e.g., SPPRSD, Regional Development, Sector, Macroeconomic, Fiscal-Monetary) on the proposed investment particularly in terms of its conformity with national and sectoral development objectives and strategies, cost effectiveness, and financial implications. Based on these reports and its own assessment, MOED/PIP Division will then make its recommendation, through its Department (MOED/EPFD) Director, to the **MOED Investment Review Committee (IRC)**, which is chaired by the **Deputy Minister (economy)** and includes as member the Director of EPFD, other MOED directors and division chiefs [**identify them**], an MOF representative, and the sponsoring LM/agency's representative(s). The IRC **decides on approval, revision, or rejection** of the Project Concept Paper.

4.4.4.3. **Approval of a Project Concept Paper** by the MOED Investment Review Committee **does not assure its inclusion in the next or future PIPs.** It only means that the proposed project seems to have good prospects of making significant contribution towards national and sector development objectives and that it should be further processed and developed into the Pre-Feasibility Report.

4.4.5. After the MOED Investment Review Committee approves a Project Concept Paper, it will instruct the EPFD Director to prepare a Pre-Feasibility Report for the project. To this end, the EPFD Director will set up a **Pre-Feasibility Report Team** under the leadership of himself or one of his division chiefs and including members **with appropriate specializations** from the sponsoring LM/Agency, MOF, and MOED (including CER, which has been developing its project preparation and appraisal capacity with the support of USAID/PIPP Training Program).

4.4.5.1. The **Pre-Feasibility Phase** for public investment projects is the most **important and critical stage** of project development. The Project Concept Paper's claims for the project's potential contributions to national and sectoral development objectives and strategies will be checked, analyzed and verified at this stage by sector and technical experts on the basis of relevant data and information from both official and market sources.

- 4.4.5.2.** The pre-feasibility report is the stage for completing all the preliminary steps for going into a detailed feasibility study. Its coverage is therefore more or less the same as that of the feasibility study and normally includes the following **key modules**: (i) The project's definition and its place in the national and sectoral development framework; (ii) the structure of demand, stakeholders, and market for the project; (iii) the technical and engineering module; (iv) environmental module; (v) human resources and administrative support module; (vi) institutional module; (vii) financial module; and (viii) economic analysis module.
- 4.4.5.3.** A detailed guidance as to the coverage of the pre-feasibility report is provided by a **sample template** in Annex 10. At this stage, the required information will be obtained from the **existing sources** without undertaking special studies (e.g., market surveys, pro-forma invoices from suppliers) and analyzed with special emphasis in relation to the project's status vis-à-vis the national and sectoral development of the country. In this sense, the pre-feasibility and feasibility reports will have the same coverage but with one difference that the latter will go into more detail with greater documentation and substantiation of the information used.
- 4.4.5.4.** The Director of MOED/EPFD will present the Pre-Feasibility Report to the IRC for a final scrutiny and approval. The Committee will decide whether the project is to be dropped or moved to the next stage, which is the Feasibility Report phase for **projects with a total cost greater than \$.....million** (this amount will differ by sector and project type and will be adjusted in light of inflation). For smaller projects, the IRC may decide to skip the Feasibility Report stage and directly go to the next stage, which is the preparation of the Project Appraisal Report.
- 4.4.6.** Once a pre-feasibility report of a project with a cost of more than \$... million is approved by the Investment Review Committee, MOED will send the approved report to the sponsoring LM/Agency with an advise that it can now be processed to the **preparation of a full Feasibility Report**. The Line Minister/Agency Head will instruct the relevant Department Director to establish a **Feasibility Study Team** for the project, comprising a sector economist/specialist, an engineer, and a financial analyst, who will together guide and oversee the preparation of the full feasibility report.
- 4.4.6.1.** The **feasibility report preparation** requires **substantial work and expertise** usually beyond the capacity of the LMs/Agencies, particularly considering that several of such reports will be required by each agency in a particular year. This work will also require several **highly specialized and costly studies** of particular engineering, marketing, and legal aspects of the project. Therefore, the preparation of a full Feasibility Report usually has to be **contracted out** to appropriately specialized and experienced consulting firms and requires considerable funding **from the State Budget** for consultants' fees and associated studies.
- 4.4.6.2.** The **preparation of a full feasibility report** may take **several months and even years** for large and complex projects. Its review and evaluation by the sponsoring LM/Agency and other related authorities (e.g. for environmental, public health, legal authorities, tariff commission) as well as by potential donors and/or funding agencies will also require substantial time before it can be submitted to MOED and MOF for final decision on its inclusion in the PIP and the Budget. In the meantime, the national and sectoral economic, social and political conditions and priorities at the

time of MOED's evaluation of a Feasibility Report may have become quite different from those which underlay the pre-feasibility report of the same project. Besides, the Feasibility Report may have come up with considerably different results on certain aspects of the projects than the pre-feasibility report. Hence, following a LM/Agency's submission of a full Feasibility Report, **MOED and MOF will need to undertake an Appraisal Report** of that project to confirm its acceptability into the PIP under both new macro and sectoral conditions and new features of the project.

4.4.7. The Project Appraisal Report is a technical report consisting of concisely written chapters on the project's principal aspects, justification, and implementation within 30 to 40 pages (see Annex 11 for an annotated sample template). The Appraisal Report will assess the suitability of a project to Azerbaijan's medium- to long-term national and sectoral development objectives and strategies. It will also identify the critical risks to which the project may be exposed. Finally, it will serve as a guide for project implementation and monitoring.

4.4.7.1. An Appraisal Report will also be prepared for projects for which a full Feasibility Report is not required because of their size (see # 4.4.3.4). This will serve two purposes of: (i) confirming the evaluations of the pre-feasibility report, particularly if some considerable time has passed since its preparation, and (ii) assuring the project's acceptability from the angle of the national and sectoral development framework, which is covered only tentatively at the pre-feasibility stage.

4.4.7.2. The Project Appraisal Report will be prepared by a team assigned by the **MOED Investment Review Committee** and comprising the chief of MOED's relevant sector division (team leader), one representative of MOF and the sponsoring LM/Agency each, and an expert of the MOED/PIP division. Following the IRC's approval of an Appraisal Report that does not require any additional work on the project, the project becomes a strong candidate for inclusion in the next two years' PIP, depending on the evaluation of MOED's PIP Task Force in view of the size of the project, overall resource envelop, funding arrangements, and other relevant factors.

4.4.7.3. However, should the Appraisal Report recommend some changes in the project, the IRC will evaluate the proposed changes in consultation with the sponsoring LM/Agency and MOF and will decide on one of the following alternatives: (i) disregard the proposed changes and proceed with the project as originally designed; (ii) return the project to the sponsoring LM/Agency to make all or part of the recommended changes before it can be considered for the next PIP; and (iii) put it on "mothballing" for reconsideration in the future; and (iv) drop it completely from the LM/Agency's PIP.

4.4.8. Following the approval of the PIP by the HPPC and COM, its projects can be included in the medium-term budgets of the State and other Agencies' (e.g., SOEs, SOFAZ, municipalities) as they appropriately belong to. This will be followed by finalizing the loan/credit agreements and the implementation plan included in the project package. At present, the former requires endorsement by both the COM and President of every project loan/credit with **State guarantee** (see Annex 12). The implementation plan should involve both the **disbursement and use of budgeted capital spending** and the implementation of the project construction and its

equipment installation. While the former is regulated by the current statutory procedures of the State and other Agencies' budget implementation, the latter will require a separate manual for "Project Management", which is now lacking.

4.4.9. The process for developing a project idea into the implementation stage has been described above without any distinction between projects with and without external funding. This is partly due to the fact that **one manat of additional public money spent on a public investment project deserves the same utmost care whether borrowed from abroad or taxed away from the national output.** It is also due to the expectation that with the expansion of oil revenue over the medium- to long-term, a **rapidly growing share of Azerbaijan's public investment program will be funded from domestic savings.**

4.4.9.1. Some external funding agencies, particularly the major IFIs, **however, also have their own project development procedures,** which largely correspond to those described above. They usually come up with their own project ideas, purported to be based on GOAZ's development priorities; prepare the project concept paper for their management; and then get the borrowing LM/Agency to have, with their help, the feasibility report prepared by a reputable consultancy. The funding IFI will then carry out its appraisal for own management to confirm the project's acceptability from the angle of its assistance strategy for the country, which is supposedly coincides with GOAZ's development strategy.

4.4.9.2. The fact that an **externally funded project is carefully processed by its funding agency will not obviate the need for GOAZ's applying the procedures of this manual** to the project in question to make sure that it will meet the government's long-term national and sectoral development objectives and strategies. On the other hand, **the work done by the funding IFI, if shared with GOAZ, will certainly be a valuable help to the government work on the project.**

4.5. PRIORITIZATION OF PROJECTS

4.5.1. Prioritization of projects at a **profit-maximizing private enterprise** is rather simple and straightforward. A commercial/industrial project's stream of all costs and benefits can first be **valued at market prices** and then discounted by the market rate of interest to find their present values. The resulting rate of net profitability of the project can thus be compared to alternative projects' profitability and to the project owner's cut-off rate (e.g., the long-term bank deposit interest rates or higher) to decide if the project would be included or not in the enterprise's projects portfolio.

4.5.1.1. In the case of public sector projects, particularly other than those of SOEs, **serious difficulties are encountered in prioritizing them** because their benefits (e.g., education, health, defense, antipollution services) are mostly non-traded and hence **not valued in the market.** Moreover, even the market-valued costs and benefits of public investment projects will have to be adjusted for a host of **externalities,** which are not captured by the market mechanism. Finally, the main objective of public investments cannot be simply put as "profit maximization" even if profit is defined as the net return to the "national economy". **Social considerations** like impact on

poverty and income distribution should also be among the indispensable criteria used in prioritization and selection of public sector projects.

4.5.1.2. The **cost-benefit analysis**, that is a standard tool for prioritization and selection of private sector projects (# 4.5.1.), will thus become quite a **sophisticated and cumbersome technique when applied to public investment projects** even with tradable costs and benefits because of adjustments needed for externalities (**economic analysis**) and social considerations (**social analysis**). Besides, most public investment projects are not amenable to any quantitative analysis even if additional complicated work is considered worthwhile.

4.5.1.3. As distinct from private sector projects, the public investment projects will therefore be prioritized and selected on the basis of not only cost-benefit analysis but a **combination of policy-based and quantitative criteria**. The former will first filter all project ideas and initial briefs through a strainer of GOAZ's macro and sectoral development objectives and strategies. The "policy-filtered" projects will then be subjected to micro appraisal by various quantitative techniques, including the full cost-benefit analysis should the nature and size of the project justify it.

4.6. POLICY-BASED PRIORITIZATION

4.6.1. **Policy-based prioritization** will appraise public investment proposals in terms of their suitability and possible contribution to GOAZ's medium- to long-term development objectives, strategies, and policies.

4.6.1.1. Government's development objectives, strategies, and policies would mostly **reflect and change according to the social, economic and political platform** of the political party in power. However, **there is no any standard technique** for measuring a public investment project's suitability and expected contribution to such objectives and strategies.

4.6.1.2. This manual will therefore set only some basic principles of policy-based prioritization of public investment projects and leave it to the annual Joint/PIP CCs for GOAZ to guide and instruct all public sector agencies about the detailed policy-based criteria to be used for the next rolling PIP.

4.6.2. Chapter 2 above has set the main directions of the **public investment policy** according to the GOAZ's salient objectives and strategies for the medium- to long-term macroeconomic and sectoral development of the economy. Accordingly, the prioritization and selection of public investment projects will observe **the following policy-based criteria** in order to support the GOAZ's development objectives.

4.6.2.1. Public investment (capital spending) proposals, both at macro and sector levels, can not exceed **the ceilings set by MOED** in line with public investment requirements of **sustained and stable development** of the economy over the medium-term (See Annex ... for setting the sector ceilings). Setting such ceilings should and will reflect **GOAZ's political choices** among alternative resource uses at the national and sector levels.

- 4.6.2.2. Setting a ceiling for total investment implies **prioritization of capital spending vis-à-vis consumption** at the margin. Similarly, a ceiling for total public investment reflects **prioritization between public and private sector investment** at the margin. Finally, sectoral public investment ceilings imply a certain set of **prioritization (preference) between public investments of various sectors**.
- 4.6.2.3. Once the total size and sectoral composition of public investments are thus determined, the first major policy-based criterion to be applied by LMs/agencies to all public investment proposals will be whether there is adequate **justification for the public sector involvement** in those projects rather than leaving them to the private sector (see # 2.3.2.3.- 2.3.2.4.3.on justification for public investment). Otherwise, even a very high rate of return or lack of adequate private sector capital and skill accumulation will not justify a direct public sector involvement in a project. This will be the most strategic criterion for the formulation of sound public investment policy in any country, including Azerbaijan, aspiring for transition to a market economy.
- 4.6.2.4. Among projects which are appropriate for the public sector involvement, preference will be given to those particularly contributing to the **development of the non-oil sectors**. Such projects may include both physical (e.g., roads, electricity, water and sewerage) and social (e.g., education, health) infrastructure schemes, which would greatly contribute to profitability of the private sector projects in the non-oil sectors.
- 4.6.2.5. **Poverty reduction** has the utmost priority for GOAZ in allocating its public spending among alternative uses. There is, however, a tendency of all LMs/Agencies to characterize everything they do as “contributing to poverty reduction”. It is, therefore, necessary to identify the poverty reduction criteria in terms of more concrete goals and targets as specified in the 2006-15 SPPRS with respect to the UN’s MDGs.
- 4.6.2.6. Another important direction of Azerbaijan’s Public Investment Policy is the emphasis GOAZ puts on **reducing disparities in socio-economic development of the regions** while pursuing the other prioritization criteria (e.g. the development of non-oil production capacity and poverty reducing policies particularly in the less developed regions).
- 4.6.2.7. In addition to the macro and sectoral policy-based public investment criteria as mentioned above, there will be **micro policy-based criteria** regarding the nature and status of the project and its management. These will include the following:
- 4.6.2.7.1. **The extent of completion of the project:** Projects near completion will be given higher priority than others;
- 4.6.2.7.2. **Nature of capital spending:** Projects requiring capital spending for major repairs will be given priority over new investment projects;
- 4.6.2.7.3. **Better performing projects:** Such projects will be specially supported in order to encourage efficiency;

- 4.6.2.7.4. Leveraging domestic and foreign financing:** Projects where GOAZ funding from the State Budget facilitate raising higher amounts of domestic and foreign funding will be given higher priority.
- 4.6.2.7.5. Extent of inter-regional benefits:** Projects whose benefits extend across the regions, particularly the less developed ones, will be given higher priority over the others.
- 4.6.2.8.** All these and other macro and micro policy-based criteria, and also their sub-components if required, will be **applied simultaneously** to the prioritization of public investment projects as well as to the evaluation of sector investment programs. This process requires development and use of **(i) a ranking system** for projects against these criteria, and **(ii) an appropriate weighting system** which assigns different weights to each criterion. The weighted rank of each project will then be calculated and projects ranked by it. Higher ranked projects will have the first claim on budgetary resources (for a detailed example, see Annex 13).

4.7. QUANTITATIVE PRIORITIZATION OF PROJECTS

- 4.7.1. Policy-based evaluation and prioritization** of public investment projects will be supplemented by **quantitative analysis** in order to ensure that they will attain their objectives through efficient use of public resources. This will be done by prioritizing all “policy-filtered” projects through one or more **cost-benefit or other cost-based techniques** within the resource envelope determined by the public investment ceiling of the LM/Agency that proposes the project. Alternatively, the result of the quantitative analysis could be incorporated in the same ranking and weighting systems used for the policy-based analysis for a policy-cum-cost-based prioritization and selection of the public investment projects.
- 4.7.2. The purpose of the quantitative analysis** of the policy-filtered public sector projects will be to determine whether they represent worthwhile investments for the country, i.e., whether the results from each project are sufficiently valuable as to warrant the expenditure of scarce public resources. However, as noted above, because of the nature of public sector investment projects, the required analysis cannot be based on the financial cost-benefit study using the market prices, but it must instead be based on the “economic” and/or “social analysis” by using adjusted prices (shadow prices).
- 4.7.3.** Economic analysis is thus an **indispensable tool** for prioritization and selection of public investment projects from among alternative options. Where results (i.e., costs and benefits) can be evaluated in monetary terms, the economic analysis will provide one measure to evaluate and compare possible projects. Where results are quantifiable but cannot easily be expressed in monetary terms, economic analysis will allow determining the real resource cost per unit of output (benefit), which is critical to judge a project’s acceptability. Where outputs (benefits) are non-quantifiable, as is the case in most public sector projects, economic analysis will enable choosing between the alternatives on a least-cost basis.
- 4.7.3.1.** It is beyond the scope of this Manual to give even a basic training on the quantitative (cost-based) analysis of public sector projects. While the basic methodologies are

standard, the exact application of them to specific projects in different sectors will call for special and particular analysis. There are no hard and fast rules for determining shadow prices, and in many cases the task will call for reasonable judgments rather than exact measurement. There are many good detailed manuals for the economic and social analysis of projects, which can be used as resources by the MOED and LMs/Agencies' staff.

- 4.7.3.2. This Manual provides here brief definitions of key terms of the quantitative project analysis as a guide to GOAZ staff, who are involved in the PIP process. This is further expanded in Annex 14 on the basis of the USAID/PIPP's March 2006 Project Cycle Training materials. The annex also gives a brief list of key references for those who will need to learn more detailed and technical treatment of the subject. Such references can also be obtained from the PIPP Library established at MOED by the USAID/PIP Project.
- 4.7.3.3. The primary task of economic analysis is to measure the costs and benefits in terms of a "common yardstick" for: (i) measuring the real value of the project results, and (ii) comparing results across time. In this respect, economic analysis is similar to financial analysis, except that it uses (real) "**shadow prices**" or "**opportunity costs**" as the common yardstick instead of (nominal) **market prices** used by financial analysis. This is because the objective of economic analysis is to determine the national (social) profitability of a project to judge whether spending scarce resources on a particular project is sensible for the national economy (and the society) as a whole.
- 4.7.3.4. In a world of government involvement in the economy, formal and informal restrictions on labor movement, monopolies, and restrictions/restraints on international flow of goods, services, and capital, market prices often do not reflect real resource costs to the national economy. In addition, private financial profitability does not take into account the project's costs and benefits to others. Hence, the prices of inputs and outputs of a project will have to be adjusted in order to judge its value to the society.
- 4.7.3.5. The key prices to be adjusted include the prices of: labor (**the wage rate**) mainly because of high unemployment in the country, capital (**the interest rate**) owing to government policies encouraging capital goods imports, and domestic versus foreign goods (**the exchange rate**) due to the over-valuation of local currency for the non-oil sectors. In addition, some costs (e.g., pollution, overburdening of public facilities) and particularly most benefits (e.g. education and health benefits) of public sector projects cannot be expressed in monetary market values and therefore cannot be evaluated by financial analysis of projects. Economic analysis, however, will address this issue by including all incremental costs and benefits associated with the project through a "**with project/without project**" approach and by applying shadow prices to them.
- 4.7.3.6. Once economic costs and benefits are calculated as flows over time, it will be a relatively simple matter to calculate the net annual benefit flow and an **internal rate of return (IRR)**. Most **financial calculators** have programs to calculate an IRR, which is defined as the discount rate that reduces the stream of net benefits to approximately zero. Put differently, IRR is the discount rate that equates the present value of the flow of net operational benefits to that of capital investments flow. A

project thus could not be justified on economic grounds if the IRR is below the **opportunity cost of capital**.

4.7.3.7. Since all these calculations are naturally imprecise, a **sensitivity analysis** will be performed on the IRR by **varying the critical assumptions** of the project to determine what impact different potential developments would have on the IRR.

4.7.4. Where project benefits are largely non-quantifiable (immeasurable), economic analysis will be used to compare the stream of costs of alternative projects (**cost-effectiveness**) in order to determine which project represents a **least-cost solution**. Shadow prices will be used where appropriate in a least-cost analysis. Before designing alternative projects for the same "output target", a **demand analysis** will be undertaken to determine the need for the project's intended output or result.

4.7.5. The methods of analysis described so far deal only with economic efficiency criteria, but not with **equity (social) criteria**. The economic analysis should incorporate **income distribution criteria** to the extent possible. In addition, considering GOAZ's emphasis on employment creation, total incremental **employment effects** of the public investment projects should also be used as a social criterion. Several sources listed in Annex ... describe how distributional weights can be incorporated in the traditional forms of cost-benefit analysis.

4.7.5.1. The objective of social analysis is to **tilt project prioritization and selection in favor of the disadvantaged groups**. To this effect, different weights will be assigned to benefits and costs of a project by socio-economic status of beneficiaries so as to increase chances of lower-income groups and poorer locations to compete for public investment resources. The distributional weights will, by their nature, reflect the GOAZ's (e.g., the political party in power) **political preferences** regarding the socio-economic development of Azerbaijan over the medium- to long-term. It, however, represents two major improvements over the situation without it. First, in the preparation of the PIP, the **arbitrary and discretionary interferences** will be replaced by the officially announced country-wide distributional weights representing the socio-economic platform of the "elected government". Second, the **resource cost of such "social and political preferences"** in terms of net economic benefits lost will be measurable and transparent for the public.

4.7.5.2. Undertaking a sound social analysis of a public investment project has two key requirements: First, every project will affect both directly and indirectly different groups in different ways. The increasing concern of GOAZ with reaching the poor and those groups hitherto largely by-passed in the incipient oil-based development process creates a special need to identify the differential socio-economic impact of a public sector project. It is important, therefore, to identify as explicitly as possible **different geographical, functional, communal, and income groups (i)** whom the project intends to help; **(ii)** whom it will adversely affect; and **(iii)** whom it will indirectly affect favorably or adversely.

4.7.5.3. The second key requirement for a sound social analysis is the availability of a set of officially calculated or endorsed **shadow prices and distributional weights**, which are also called "**national parameters**" and applicable to all public sector projects.

The calculation of such national parameters for Azerbaijan (or any country) is not simple and will require certain technical expertise beyond the current capacity of MOED. The Ministry is planning to develop this capacity at its **Center for Economic Reforms** with TA from the USAID/PIP Project.

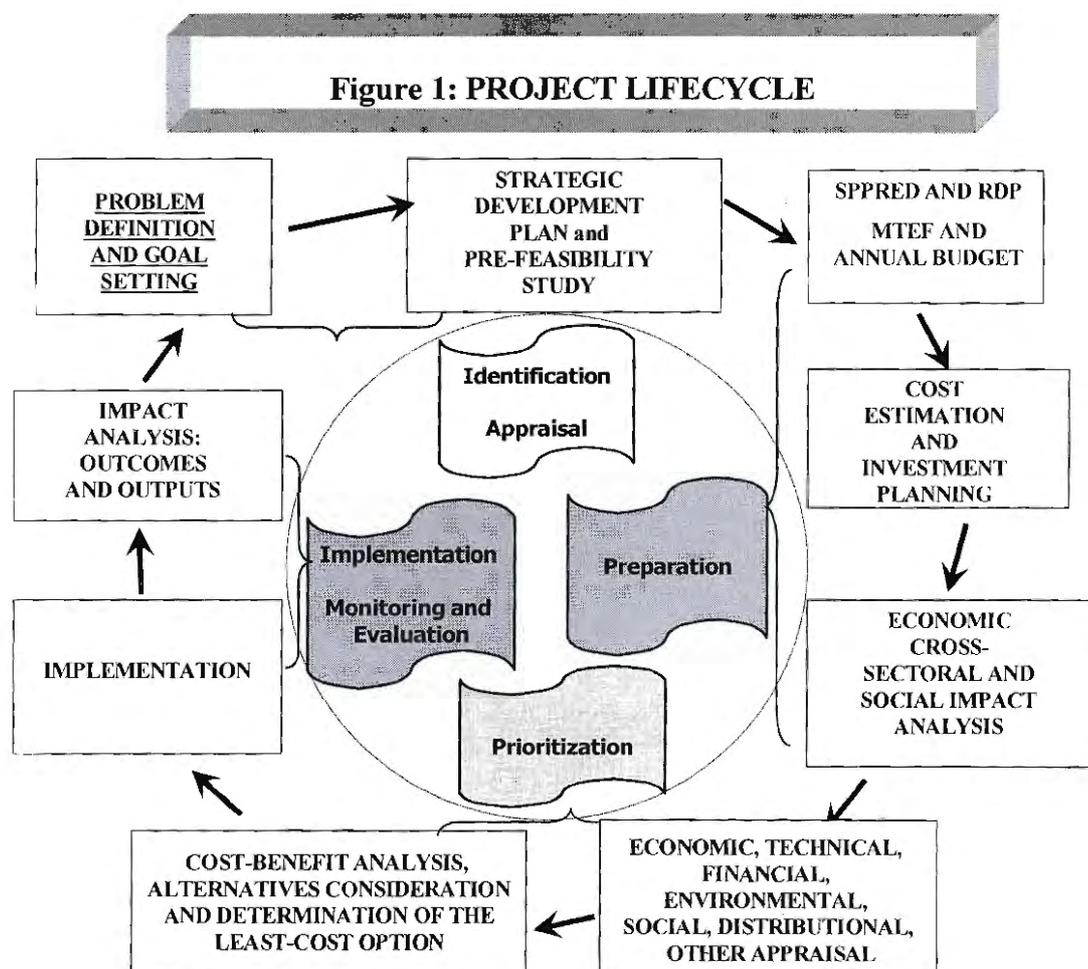
- 4.7.5.4. Undertaking a sound social analysis is very skill-intensive and time consuming.** It should, therefore, be confined to the evaluation of **selected major public sector projects** and programs by the MOED as it would be impractical to apply it to all the PIP projects.

NOKI

AZERBAIJAN REPUBLIC
MINISTRY OF ECONOMIC DEVELOPMENT

Project Development, Appraisal and Monitoring Process

The GOAZ aims at strengthening its institutional and technical capacity for most successful management of the public investment project cycle in all budgetary organizations. The project cycle comprises project identification, appraisal, preparation, prioritization, implementation, and monitoring and evaluation. This is illustrated by the figure below, which also emphasizes the great importance of undertaking the project work within an integrated framework of national and sectoral planning and budgeting instruments. This diagram is expected to drive home upon all the levels of GOAZ, from the central agencies to line ministries and to their operating companies, that the development, prioritization and selection of sound public investment projects are a highly integrated and at the same time technically specialized process.



AZERBAIJAN REPUBLIC

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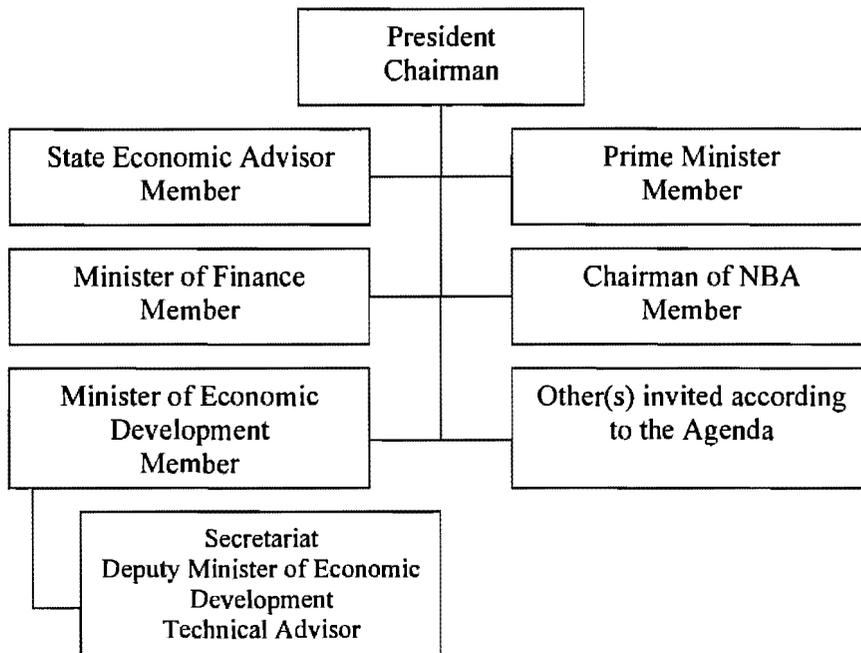
Structure and SOW for a High Policy Planning Council (HPPC)

1. **The Structure of HPPC:** In Azerbaijan, the President alone represents the executive (and administrative) power and shares with the Parliament (the legislative power) the responsibility for governing the country. The President exercises the executive power through a Cabinet of Ministers appointed by him, though the appointment of the Prime Minister (PM), who has mainly a coordination role, is to be approved by the Parliament. Thus, the preparation and execution of all the plan and budget documents are the responsibility of the President, who discharges it with the help of the PM and the Cabinet. Within the Cabinet, the planning work (e.g., SPPRED, SPSEDR, PIP) is led and mainly undertaken by MOED and the budgeting work (MTBF, State Budget, Consolidated Budget) by MOF.
2. These tasks, however, are too wide-ranging and widely cross-cutting in coverage, involving the whole economic and social development spectrum, and too specialized in skill requirements for the whole Cabinet to carry out the guidance, oversight, appraisal, and approval of them as a team¹. Most countries form a special “Cabinet Cluster” to guide, evaluate and screen major planning and budgeting decisions and documents before their final submission to the Cabinet and the President². To this effect, this Manual on PIPP has been prepared on the basis of an assumption that the central economic policy making and coordination in Azerbaijan will be strengthened and facilitated by the establishment of a “**High Policy Planning Council (HPPC) for Economic and Social Development**”.
3. **The HPPC will be established by a Presidential Decree that will also sanction its charter.** The President himself will be its chairman, and its statutory members will include the State Economic Advisor (SEA), the PM, MOED, MOF, and the Chairman of NBA. The President may ask SEA or PM to chair some meetings on his behalf. The chairman may also invite other ministers/agency heads to participate in parts of meetings as he deems necessary depending on the agenda. As secretariat services are to be provided by MOED, the Deputy MOED or Director of EPFD/MOED should also be present as advisor and observer. Participating ministers and agency heads will be accompanied by their advisers, whom may be called upon to present technical information on and justification for their agency's case. The HPPC meetings will be convened by the President to discuss the issues identified in its charter as they become due for decision as well as on ad hoc basis when he needs its advice. The meeting may last from a few days to a week or even longer depending on the subject(s) of its agenda.

¹ At present, ministers and non-ministerial members of the Cabinet of Ministers in Azerbaijan amount to 38. However, as distinct from the countries with a parliamentary system of government, a Cabinet decision in Azerbaijan is not expected to be signed by all members. For instance, in the case of the draft Budget, about 25 signatures are needed for its submission to the President.

² The World Bank prepared a note (dated June 2005) on “Azerbaijan: Ideas for a Budget Reform Action Plan”, which also suggests the establishment of a “Cabinet sub-structure” for the same purpose as explained above, and briefly refers to the examples of South Africa and Uganda. To these examples Turkey (“Yukse Planlama Kurulu” – High Planning Council—since early 1960s) and the Philippines can be added.

Diagram: Azerbaijan - Proposed Structure of the HPPC



4. **The SOW of the HPPC:** This will be determined by its charter, and may include both advisory and operational tasks. In its advisory capacity, the HPPC will review and evaluate some major economic and social policy decisions and documents, including the JCC, and submit its recommendations to the Cabinet and the President. The HPPC charter may also identify some specific tasks and areas for which it can take operational decisions that can be implemented without approval of the Cabinet or any other body.
5. The **main tasks of the HPPC**, particularly relating to PIPP, will include the following:
- Help the Cabinet of Ministers and the President in identifying the policy objectives and strategies for economic and social development of the country;
 - Review and evaluate the plan and budget documents (SPPRED, SPSEDR, PIP, MTBF, State and Consolidated Budgets, Monetary Program) for their quality and compliance with the national objectives and strategies before their submission to the Cabinet and the President;
 - Determine the ground rules and main principles for support of investment and exports; and
 - Review and evaluate every measure and project relating to State Owned Enterprise (SOEs) in the plan documents, including their privatization, and advise the COM on appropriate decision.

AZERBAIJAN REPUBLIC

MINISTRY OF ECONOMIC DEVELOPMENT

Preparing the Medium-Term Macroeconomic Framework (MTMF)

Introduction

1 A medium-term macroeconomic framework (MTMF) is essential to assessing whether the medium-term national and sectoral development objectives and strategies are consistent with each other as well as with the country's resource and other constraints. It is also essential for formulating the annual and the medium-term budgets as well as the public investment policy and program in accordance with those objectives and strategies¹. The projections required for this purpose are not simple prognoses of trends in macroeconomic variables. They should instead reflect the government's targets, strategies and instruments in areas such as fiscal policy, monetary policy, exchange rate and external trade policy, reform of public enterprises, and regulation and promotion of the private sector. Most importantly, the MTMF should include the projections of the government accounts that would form a medium-term fiscal framework (MTFF). The MTFF should detail the broad revenue and expenditure categories, supplemented preferably with expenditure estimates by main sector.

2 The macroeconomic model to be used in the development of MTMF/MTFF should be relatively simple. The government's major goal here is to set a general framework to formulate macroeconomic objectives, identify the necessary strategies and policies to realize them, and check their consistency. Sophisticated econometric models are not essential to this end, and have indeed certain disadvantages. Operating elaborate models needs time and a strong technical team, while the budget and the public investment program are prepared to a tight timetable. Advanced econometric techniques may give rise to a sense of misplaced concreteness and a forecast illusion, which may reduce their practical value. A simple model, on the other hand, can be used with ease, speed, and flexibility in debates on economic policies.²

3 This note explains how PIPP has been helping to develop the necessary capacity at MOED to prepare the macro and sector development framework in cooperation with MOF, NBA and line ministries. Following the issue of the PIPP Work Plan and the above-mentioned technical notes on the importance and role of macro and sector modelling in the formulation of public investment policy and program, PIPP has begun using a two-prong approach of formal training in modelling and learning-by-doing involving MOED, MOF and NBA staff as explained below.

Azerbaijan Experience in Macroeconomic Modelling

4 Since independence, there were several attempts to establish and institutionalise macroeconomic modelling capacity in the Ministry of Finance, the National Bank of Azerbaijan

¹ The importance of having one and the same macroeconomic and sectoral development framework for the preparation of all major planning and budgeting instruments, including the public investment policy and program, is explained in the Work Plan of the USAID/MOED's Public Investment Policy Project and its two technical notes: (a) Importance of a Macroeconomic and Sectoral Framework for PIPP, November 2005; and (b) Preparation of Sector Strategic Development Program, October 2005.

² The first two paragraphs are based on: OECD, "Managing Public Expenditure: A reference Book for Transition Countries", edited by Richard Allen and Daniel Tommasi, Paris 2001, pp.143-4 and 153.

(NBA), and the Ministry of Economic Development (MOED). With the support of the UK's Department for International Development (DFID), the MOF established in 1999 an interdepartmental Macroeconomic Policy Group (MPG), which was subsequently expanded into an interagency (MOED, MOF, SOFAR) group under ADB financial support. MPG has developed a simple Azerbaijan financial framework model, an oil forecasting model on the basis of the BP model, an external debt model, as well as a RMSM-X type flow-of-funds model. However, the lack of demand for and adequate understanding of macroeconomic analysis has resulted in the MOF refusing to institutionalize MPG and then dissolving it when the ADB funding ended. The ADB and MOED have been working since late 2005 to re-establish MPG under MOED's Centre for Economic Reforms (CER).

5 The NBA's modelling work, with two separate models for inflation and exchange rate forecasting, has been more successful than the other agencies' modelling work. NBA was particularly successful to establish, with the support of the IMF, the proper monetary accounts, a forecasting framework, and a sectoral database. With the establishment of the Research and Statistics Department in 2005, NBA has further strengthened its analytical and forecasting capacity. This Department also works on the development of a financial programming framework for Azerbaijan with external support.

6 MOED's Economic Policy and Forecasting Department is directly responsible for the macroeconomic policy formulation and macroeconomic forecasting in Azerbaijan, but it has not received any external assistance to improve its macro modelling capacity apart from getting the packages of the MPG models, and the WB RMSM-X model.

Financial Programming Model (FPM)

7 The IMF has popularized a simple Financial Programming Model (FPM) that serves basically as a simple consistency framework based on the national income accounting concepts and identities. It assumes that the economy comprises only four sectors: the real, fiscal, monetary, and external sectors. Each sector account has one or more direct linkages with other accounts, which act as consistency anchors. It has only a few behavioural relationships in the form of simple income elasticity. The user, however, may want to use more realistic behavioural relationships outside the model to determine or check plausibility of his exogenous targets and parameters. The model can be used to design the main demand management policies (i.e., the fiscal, monetary, and foreign exchange policies) to maintain macroeconomic stability in a particular country, given the growth targets and structure of the real side of the economy. But it has become a tool for the IMF to constrain the real side of the economy in the member countries so that its performance would be consistent and compatible with a set of demand management policies designed to attain and maintain macroeconomic stability in the economy.

8 Although a very useful tool, FPM does not directly contribute to the quality of analysis; nor does it provide the user with any additional insight into the issues discussed. Also, it is not a forecasting or projection model, but a programming tool. FPM merely provides guidance to the users for a certain way (methodology) of macroeconomic thinking and a framework for internal consistency of their analysis. The quality of their analysis will mainly depend on their own analytical capacity, knowledge of the economy and the political constraints, and access to most up-to-date data and information. Considering that the IMF designs and manages, with the help of FPM, Fund-supported macroeconomic adjustment programs in several dozens of countries, the MOED also plans to use FPM to develop a MTMF for Azerbaijan. All it needs is to have adequate capacity for sound macroeconomic and fiscal analysis and close cooperation with MOF and ANB.

Revised Minimum Standards Model-Extended

9 RMSM-X is also an Excel-based consistency model using national income accounting concepts and identities and developed by the World Bank for country economic analysis. More specifically, it includes five accounts, namely, the National Accounts (the real sector), Balance of Payments, General Government (the fiscal account), Monetary Survey, and the rest of the economy. It is essentially used for checking the consistency of demand management policies through its flow-of-funds framework. As distinct from the IMF Financial Programming model, however, RMSM-X is a package comprising a database file, a foreign debt module, and the model itself. Its sector modules can be expanded as needed to meet the user's requirements. For MTBF purposes, its national accounts and government sectors can be expanded to incorporate the main economic sectors or sector groups of the PRSP. Moreover, it imports data from own database and has built-in alternative closure rules. This enables the user to manipulate it for reviewing the implications, for example, of a certain budget scenario or private sector scenario for the rest of the sectors/accounts.

10 Although the basic conceptual framework of RMSM-X is easy to understand, its size (i.e., the number of worksheets, equations and identities), the various kinds of behavioural relationships, different closure rules, and somewhat complicated rules of adjusting its modules to different requirements make the running of the model a matter of technical expertise. However, the policy analysts, who will use the model in their policy or forecasting work, need not also know how to run the model software. All the analyst needs is to have a good grasp of the model's conceptual structure and basic characteristics; for data inputting and running the model he could rely on a research assistant with necessary technical expertise and experience.

11 MOED arranged, with the support of the USAID/PIP Project, for a team of 15 government official (9 from MOED & CER, 4 MOF and 2 ANB) to receive hands-on training in the use of RMSM-X at the Moscow Office of the World Bank during December 12-21, 2005. The participants were all strongly interested in the subject and the training delivery was highly successful. There was also a one-week follow up training for the same group by the World Bank Baku Office by using the latest updated version of the Azerbaijan RMSM-X.

12 RMSM-X will, of course, provide both the medium-term macroeconomic and sector framework, which will together form the quantitative framework of the medium-term rolling budget (MTBF) and the PIP. MOED, however, must develop a MTMF for the next year and coming three years by early March of each fiscal year to be used in the preparation of the Budget and PIP Call Circulars. As MOED/EPFD will need some time to become functional in RMSM-X, it will have to prepare MTMF initially by using only the Financial Programming Model (FPM).

Development of MTMF

13 The MOED/EPFD has a tentative plan for the development of MTMF as follows: Six staff members from the Macroeconomic Policy, the PIP and the Fiscal and Monetary Policy Divisions will be identified to work on MTMF, forming a team called "FPM Working Group (FPM/WP)". They will be supplied with the four Sector Account tables (i.e., worksheets) to familiarize themselves with the structure of the model and individual accounts. As these staff members were given the RMSM-X training in Moscow, they are now well prepared for making a rapid progress in developing the MTMF for Azerbaijan. This work is now planned as follows:

- The worksheets already distributed will be checked to confirm the reliability of their data for "latest actual".

- The worksheets will then be updated for last fiscal year (actual) and current fiscal year (preliminary actual).
- Based on the actual data the projections will be made for the medium-term period, for example “the 2008-11 base-line scenario”.
- These projections, however, will have to be based on certain political choices and assumptions that should reflect the long- and medium-term national and sectoral development objectives and strategies adopted by the elected leadership of the GOAZ. In the absence of an established government practice to announce such objectives and strategies at the outset of every fiscal year, MOED will draft “a set of implicit national and sectoral development objectives and strategies” based on the recent statements and other official documents issued by the President, PM and his other “representatives”³.
- Some more favourable and/or downside scenarios will also be developed by using different targets and assumptions with adequate justifications.
- Finally, recent developments, current prospects and medium-term projections in the fiscal area (i.e., Medium-Term Fiscal Framework-MTFF) will be discussed with MOF by using the above-developed MTMF, with implications for and interactions with the macroeconomic stability, particularly in reference to the monetary and external sectors.
- More specifically, jointly with MOF and by using MTMF, MOED will identify for the medium-term period, including next year and coming three years, the proper levels of:
 - a. Total resources available for both consumption and investment;
 - b. Its distribution between consumption and investment, and also each between the private and the public sector;
 - c. This also gives the distribution of the total resources between the private and the public sector;
 - d. Finally, the indicative sector resource ceilings.
- The resulting document will in fact be a combined MTMF/MTFF.

14 The FPM/WG will verify that the last year and expected outcomes for the current year data in the FPM account tables confirm with Government and/or IMF data. In this regards, the report of the Fund’s latest Article IV Mission to Azerbaijan, can also be used to firm up MOED’s tentative data. The FPM/WG will then “program” the four FPM accounts for next medium-term period, as noted above, with the help and cooperation of MOF and NBA staff and by using the “implicit/indicative” set of Government objectives and strategies, the last year’s rolling budget and PIP documents, the ongoing work on SPPRS, and its own assumptions and evaluations. The outcome will be the medium-term macroeconomic program for Azerbaijan for the next medium-term period corresponding to what used to be prepared for

³ The SPPRED Secretariat (MOED) has recently circulated the draft set of national and sectoral priorities and targets for the forthcoming State Program for Poverty Reduction and Sustainable Development (SPPRS) for 2006-15

Azerbaijan by the IMF since early 1990s, with one significant difference that the present MTMF will be "Made in Azerbaijan".

15 The resulting MTMF and its interactions with expected fiscal, monetary and balance of payments developments (i.e., MTMF/MTFF) should be justified on the basis of plausible assumptions and indications. To this effect, each member of the FPM/WG is expected to provide a brief write-up to justify the underlying assumptions of his/her sector account. Since the government has to own this framework, its "base-line version" should incorporate the latest objectives and targets announced by the Government. On the other hand, it seems that this scenario will have several hardly "defendable" assumptions or expectations, like the State Budget expenditures to be increased by 60 percent in 2006 while still being able to keep the rate of inflation below 10 percent. Each FPM/WG member is, therefore, required to come up with adequately justified alternative assumptions, where the base-line scenario is not plausible. They have to also align their assumptions with each other in order to ensure inter-consistency of the sector accounts of the alternative scenarios.

To perform their tasks satisfactorily, the FPM/WG staff should closely follow recent developments, current prospects, and government objectives and policies in their respective sectors as well as in the overall economy. For their present task, they are advised to go through the following documents:

- The IMF recent reports on Azerbaijan (they could be downloaded from the IMF web site www.imf.org), particularly the most recent issues of: 1) Statement by the IMF Mission for the Article IV Consultation with the Republic of Azerbaijan; 2) Republic of Azerbaijan: Ex-Post Assessment of Longer-Term Program Engagement - Staff Report and Public Information Notice on the Executive Board Discussion; 3) Republic of Azerbaijan: Fifth Review Under the Poverty Reduction and Growth Facility and Request for Waiver of Performance Criteria - Staff Report; Press Release on the Executive Board Discussion; and Statement by the Executive Director for the Republic of Azerbaijan; 4) Azerbaijan Republic: Selected Issues 5) Azerbaijan Republic: Statistical Appendix ;
- The Economist Intelligence Unit's monthly reports on Azerbaijan;
- Fitch Ratings Azerbaijan;
- NBA information (available on the NBA web site: www.nba.az): 1) Main Directions of the Monetary Policy 2) Report on Implementation of Monetary Policy ; 3) Monthly Bulletins.

16 These will make the FPM/WG adequately informed of the current state of the Azerbaijan economy in general as well as in the fiscal, monetary and external sectors as of the year-end. For getting informed on more recent developments, they are advised to review State Statistical Committee's annual and monthly publications (available on the SSC web site <http://www.azstat.org>), establish monthly data exchange with MOF (fiscal data) and NBA (monetary and BOP data); and to follow the daily and weekly papers and journals.

17 The FPM/WG will then pull together their work on sector accounts, both the worksheets and the economists' write-ups, and discuss the interactions between the fiscal and budgetary policies and the macroeconomic growth and stability, with particular emphasis on the monetary and external sectors. MOED should interact on this task with MOF and NBA as much as possible. The scope of the text of MTMF/MTFF should be wider than just needed for the PIP. This work will provide MOED with a continually updated analysis of the recent macroeconomic and fiscal developments and current prospects of the Azerbaijan economy. It could be used not only for the PIP but also for the Annual State Budget and MTBF; the Budget

Speech by the MOF; the SPPRSD and its Annual Progress Reports; discussions with the IMF, World Bank, and other donor agencies; and the government presentations to the international forums.

18 As for the content of MTMF/MTFF, the MOED and MOF management should agree on a particular template, with necessary flexibility for additional focus on a few current economic and social themes of pressing importance. This template could be similar to that of the government's "Memorandum of Economic and Financial Policies" (MEFP), referred to as the Memorandum of Understanding and presented to the IMF in connection with the review of progress of the Fund-supported programs (e.g., PRGF). This year's special theme could be, for instance, the efficient use of substantial increase in budgetary spending and how to minimize its inflationary impact. It will also be necessary to harmonize this work with the preparation of the State Budget, MTBF, and the Budget Speech by MOF as it should provide policy framework to these documents. In this respect, the inputs provided by other central and line ministries to MOF for Budget work could also contribute to developing the content of MTMF/MTFF. Finally, in the coming years, the analysis and write-up should be done by an MOED team of senior experts, with participation of a senior, fiscal policy expert from MOF and a senior monetary policy expert from NBA, and the team should have full access to most recent data as well as to full inside knowledge of the government's views and concerns over the country's medium-term development prospects.

Conclusion

19 Macro-modelling required for planning and budgeting purposes has the following main features:

- It is not meant to project and identify the development path of the economy. It is instead used as a tool to verify the consistency and feasibility of the government's medium-term objectives and strategies.
- It does not need to be a sophisticated econometric model; in fact a simple FPM and a limited version of RMSM-X will serve the purpose.
- MTMF-cum-MTFF should not be considered to be used only for the preparation of the main plan and budget documents. It must instead be continuously updated for use in almost daily navigation of the economy jointly by the MOED/MOF/NBA.
- Hence, the preparation and updating of MTMF/MTFF and managing the inter-agency cooperation for its production and use should be institutionalized and based in an adequately and appropriately staffed agency (i.e., MOED).

AZERBAIJAN REPUBLIC
MINISTRY OF ECONOMIC DEVELOPMENT
Preparation of Sector Strategic Development Plans (SSDP)

PART I: IMPORTANCE OF SSDP

The Government's public investment policy and program (PIPP) is to be guided by the country's national and sectoral development objectives and strategies. The importance of the strategic macro-planning for the PIPP process was addressed in Section 2.1 and Annexes 1 and 2 of this Manual. This annex briefly explains how to optimize the contribution of Sector Strategic Development Plans (SSDPs) to the most efficient use of public resources through PIPP.

PLANNING IN STAGES

Development planning is a three-stage exercise: Macro-, sector-, and projects-planning stages. Annex

All government investment activities are realized through the projects planning stage, which brings together all government/budgetary agencies' capital spending proposals for the plan period (bottom-up planning). Individual agencies' proposals will, however, be guided and constrained by the Central Government (top-down planning) in order to ensure that:

- Their total requirements for critical resources (e.g., funding, skilled labor, foreign currency, etc) remain within the national (feasible) availability of such resources;
- The envisaged growth pattern satisfy necessary technical inter-linkages among sectors; and,
- The implied pattern of structural development and income distribution will conform to aspirations of the people as perceived by the Government (i.e., the political party in power).

Such guidance and constraints to be determined by the Central Government will require substantial technical work by the MOED, MOF, NBA and other agencies. This work is to be done at the macro-planning stage, where the Central Government will determine both national and sectoral development objectives, strategies, and sectoral resource ceilings within a socio-economic consistency framework. It is important that this process has adequate built-in mechanisms to avoid its becoming a top-down "command" exercise and to allow a reconciliation of top-down and bottom-up planning processes. Such reconciliation is attained through SSDP, which serves as a two-way bridge between Macro- and Projects Planning stages.

CONDITIONS FOR SUCCESSFUL SECTOR PLANNING

SSDP will be a useful and effective policy and implementation tool if the following conditions are fulfilled:

- **A correct assessment of the sector's current resources, capabilities, and limitations;**
- **The Agency's mission and vision over the plan period vis-a-vis the national and sectoral objectives stated by the Central Government;**
- **The Agency's goals defined ambitiously but realistically so as to carry out its mission and attain its vision;**

- Time-bound and measurable targets to realize the Agency's goals over the plan period;
- All activities and projects properly costed, prioritized, sequenced, and assigned.
- Appropriate consultations by the Agency with all its stakeholders.
- All activities and projects envisaged by the SSDP be fully considered allowed for in the Government's MTMF/MTFF for the corresponding period if the SSDP is to be a meaningful (i.e., operational) document rather than a wish-list.
- The Agency's SSDP and overall budget (recurrent plus capital) could also contain an alternative scenario to provide the Central Ministries with a better insight as to the sector's needs and its stakeholders' aspirations.
- Finally, appropriate performance benchmarks and measurements for Monitoring and Evaluation to render SSDP an effective tool for implementation and future planning.

The second part of this annex gives a **Guide for Sector Strategic Development Planning**, which provides a description of all elements of the sectoral planning process without distinguishing between crucial and routine ones. The following is intended, therefore, to "guide" MOED and line agencies' staff not to miss the crucial issues while using the Guide for SSDP.

RECOMMENDATIONS TO LINE MINISTRIES

Almost all line ministries in Azerbaijan have at least one, and some several, Sector Development Plan (*SDP*) extending over 10 to 20 years and with varying coverage and sophistication. The Government objective of establishing the necessary capacity to formulate a sound public investment policy and program very much depends on adapting the current practice of sectoral planning to that envisaged by the Guide for SSDP given below. More specifically, such an adaptation will particularly involve the following:

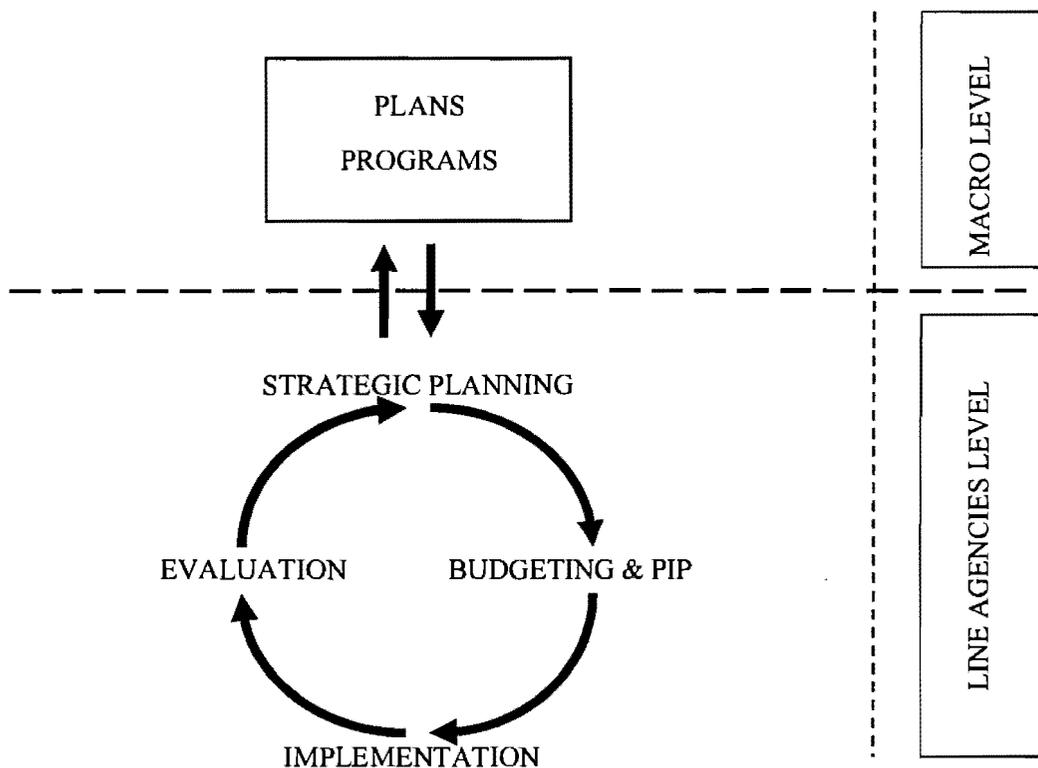
1. **Observe the guidance and instructions from the President or the COM regarding the national and sectoral development objectives, strategies and resource ceilings;**
2. **Have sector "Goals – Targets – Activities and Projects" linked to each other within a result-oriented logical process, which will pave the way for program budgeting;**
3. **Identify all planned activities and projects of the sector agency in annual terms (at least for the next four years of the plan period) as the same as those submitted for the Medium-Term Budget and PIP purposes (both recurrent and capital spending). Hence, there is no need for separate costing of SSDP activities and projects.**
4. **Send all draft SSDPs first to MOED and MOF for checking and ensuring their consistency, both in policy and technical terms, with the economy's macro and sectoral development framework over the plan period.**
5. **In the planning process, the role of the COM and the President's Office is focused on (a) setting the broad national and sectoral objectives and strategies, and (b) approval of the final plan.**

PART II: GUIDE FOR PREPARATION OF SSDP

PURPOSE

- SSDPs will help the allocation of scarce public resources to priority areas in line with macro, sectoral and regional objectives and strategies.
- SSDP serves as a two-way bridge between macro- and micro (projects)-planning
- It will also serve as a main reference source to the Agency staff as well as to all stakeholders for information on the sector's current and medium-term development prospects.

Diagram 1: Strategic Planning – Macro Planning Relationship



STRATEGIC SECTOR PLANNING CYCLE

Strategic Planning Process

1. STATE THE AGENCY'S MISSION AND PRINCIPLES
 - The Agency's main mission (the main reason for its existence)
 - Its key principles

2. IDENTIFY THE AGENCY'S VISION: Where does the Agency/Sector want to go? What is it aiming at?

3. ANALYZE THE CURRENT STATUS: Where is the Agency/Sector at present?
 - Target population and its demands
 - Current sector plan and programs
 - SWOT analysis

4. IDENTIFY STRATEGIC GOALS AND TARGETS
 - Medium-term goals
 - Specific, concrete and measurable targets

5. DETERMINE REQUIRED TASKS/ACTIVITIES AND PROJECTS: How to reach where the Agency wants to get?
 - Approaches/means to attain goals and targets
 - Detailed work/business plans
 - Costing

6. DETERMINE THE MONITORING SYSTEM: How to measure and evaluate progress?
 - Reviewing and reporting
 - Comparison with (4) above

7. EVALUATION AND PERFORMANCE MEASUREMENT
 - Feedback
 - Identify measurement methods
 - Performance indicators
 - Performance measurement

Strategic Planning: What is it about?

- aims at **planning development** in desired directions, with periodic revisions as needed;
- **result-oriented** instead of input-oriented;
- targets and approaches must be **realistic and feasible**;
- an **instrument for high quality management**;
- a **tool for accountability**;
- based on a **participatory approach**, involving all concerned staff of the Agency as well as the representatives of all stakeholders of the Agency's services; and,
- guides and directs the annual budget, rather than the other way round, within the bounds of resource constraint and national and sectoral development objectives and strategies.

The Planning Team:

- should include representatives of all key departments of the Agency;
- team members should have such knowledge and skills as necessary for the strategic planning process;
- team members should have adequate knowledge of the Agency and the sector;

- they should be adequately familiar with the target population of the Agency; and,
- should be able to devote the necessary time and effort to strategic planning work.

MISSION STATEMENT

An Agency's "mission" is the reason for its existence: it states what, how, and for whom the Agency does whatever it is doing.

A meaningful mission statement should address the following points:

- What is the reason for Agency's existence? State the purpose, but not the process to attain it.
- What are the Agency's statutory responsibilities and obligations?
- Who is the audience/target population for the Agency's services and outputs?
- Which needs does the Agency meet? Identify the Agency's services and outputs.
- The mission statement should be succinct (i.e., brief, clear and to the point).

An example of meaningful mission statement by a "Social Services Unit": To help individuals and families in meeting their basic needs and in becoming self-sustainable as envisaged in the relevant statutory framework. (Why meaningful? Because it indicates the task, the target population for the output/services, and the legal constraint).

AGENCY'S VISION

The Agency vision symbolizes its future, and powerfully states what it aspires to achieve in the future. It should answer and/or satisfy the following points:

- It must be brief, inspiring and challenging;
- What is the ideal future for the Agency?
- How does it want to be perceived by all its employees, target population and other stakeholders?

An example of good vision statement by a bank: To become a financial institution having the largest network and providing the best service throughout the country.

Both the mission and vision of the Agency are based on certain principles that should answer the following questions:

- What is the Agency's work/business philosophy?
- What are the basic value systems, standards and ideals which serve as the foundation of the Agency's operations?
- What are the systems of values and beliefs subscribed to by the employees of the Agency?

Two examples of such "principles" are given below:

Principle: Participation, transparency and equal opportunity are essential elements of our decision making process.

Principle: We cannot compromise on the quality of our services and outputs.

ANALYSIS OF THE AGENCY'S CURRENT STATUS

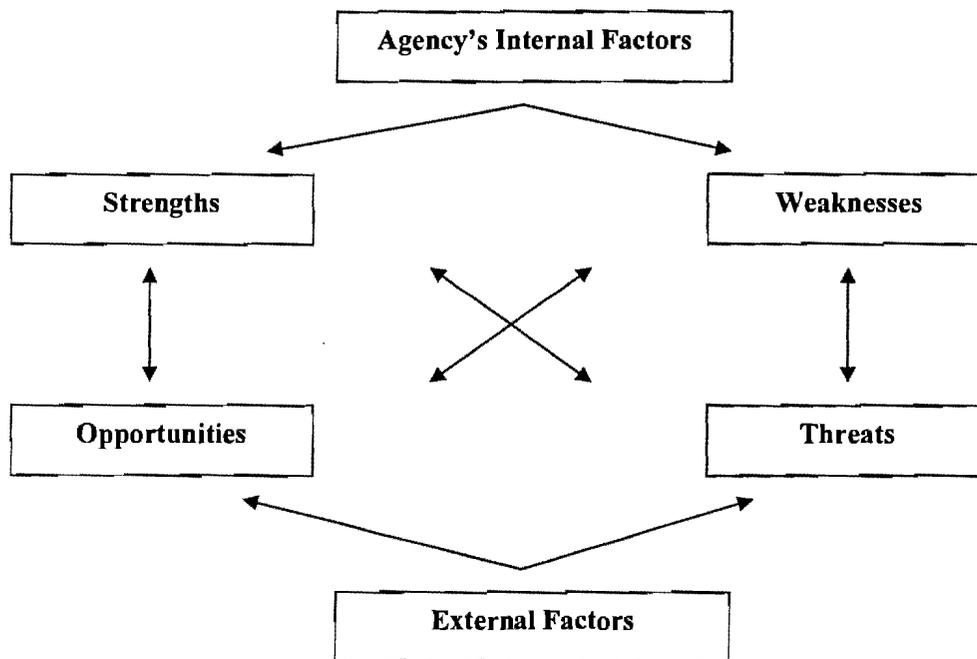
Coverage

- A brief history of the Agency and its sector's recent performance and policies;
- Analysis of the Agency/sector's structure and organization (its statutory powers_and responsibilities; performance; problems; technologies; potentials; human resources; institutional culture, etc.);
- Analysis of the external environment where the Agency operates;
- Analysis of the future developments that may affect the Agency/sector; and,
- Analysis of the stakeholders (the target population and others that may be affected positively or otherwise by the Agency's activities).

Methodology

The current state of the Agency/sector can be evaluated through the SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis.

Diagram 2: SWOT Analysis



Analysis of Internal Factors:

- Agency's recent history, related statutory/legal framework, and statutory functions;
- Its place in the Public Administration and organizational structure;
- Agency's internal information and decision making process;
- Size and quality of its workforce;
- Its funding sources (Budget, other official funds, banks, etc.);
- Its personnel and wage policies;
- Employees' motivation level and their views on the Agency's current status and prospects;
- Its technological/information technology capacity and skills level;
- Its inventory of buildings, vehicles and other assets;
- The reporting system used in the Agency;

- Its monitoring and evaluation system;
- Important activities and projects, both completed and ongoing;
- Recent changes in the Agency's organization structure and operational areas;
- Important changes envisaged in the structure and operations of the Agency; and,
- Other Agencies undertaking the same or similar functions and causing clash of responsibilities.

Analysis of External Factors:

- World situation and development trends in the area the Agency operates;
- Current domestic situation and trends in the area the Agency operates;
- The critical development prospects, at home and abroad, that may affect the Agency;
- Harmony and consistency between the Agency's activities and the objectives, strategies and policies of the national, sectoral, and regional development plans;
- Main operational risks and uncertainties faced by the Agency.

Analysis of the Target Population and Other Stakeholders' Satisfaction:

- Agency's suppliers/creditors;
- Other institutions the Agency should cooperate with to carry out its operations;
- Target population/institutions and their demands from the Agency;
- Monitoring and measurement of satisfaction of the target population and institutions; and,
- Methods of evaluation of comments and complaints by the stakeholders.

Assumptions:

While preparing SSDP, Agency has to make **assumptions** about certain internal and external factors (as listed above), which are important for the success of the SSDP but are outside the Agency's control. Any SSDP's success greatly depends on the realization of its assumptions. They should therefore be decided through a thorough review of all relevant factors with the participation of all key Agency staff.

STRATEGIC GOALS

- Agency's goals must be consistent with its mission, vision and principles;
- should contribute to and facilitate the realization of the Agency's mission;
- must be ambitious and challenging, but also realistic and feasible;
- should be appropriate for attaining Agency's vision;
- must be shaped according to the Agency's priorities and the analysis of its current situation;
- should have a medium-term perspective; and,
- must be kept unchanged until important external developments take place.

An example of well-defined strategic goal: *In order to protect health of the society, the whole country will be provided with clean and adequate supply of water with the help of environment protection and pollution control (Why is it well-defined? The goal is clearly identified; its coverage is stated; it is linked to water quality and supply, which are in turn related to environment and pollution. Thus, a direction is given for identifying targets).*

TARGETS

Targets are specific, measurable, and time-bound "sub-goals" aiming at the realization of Agency's strategic goals. Hence, they are:

- ambitious but feasible;
- result-oriented;
- measurable;

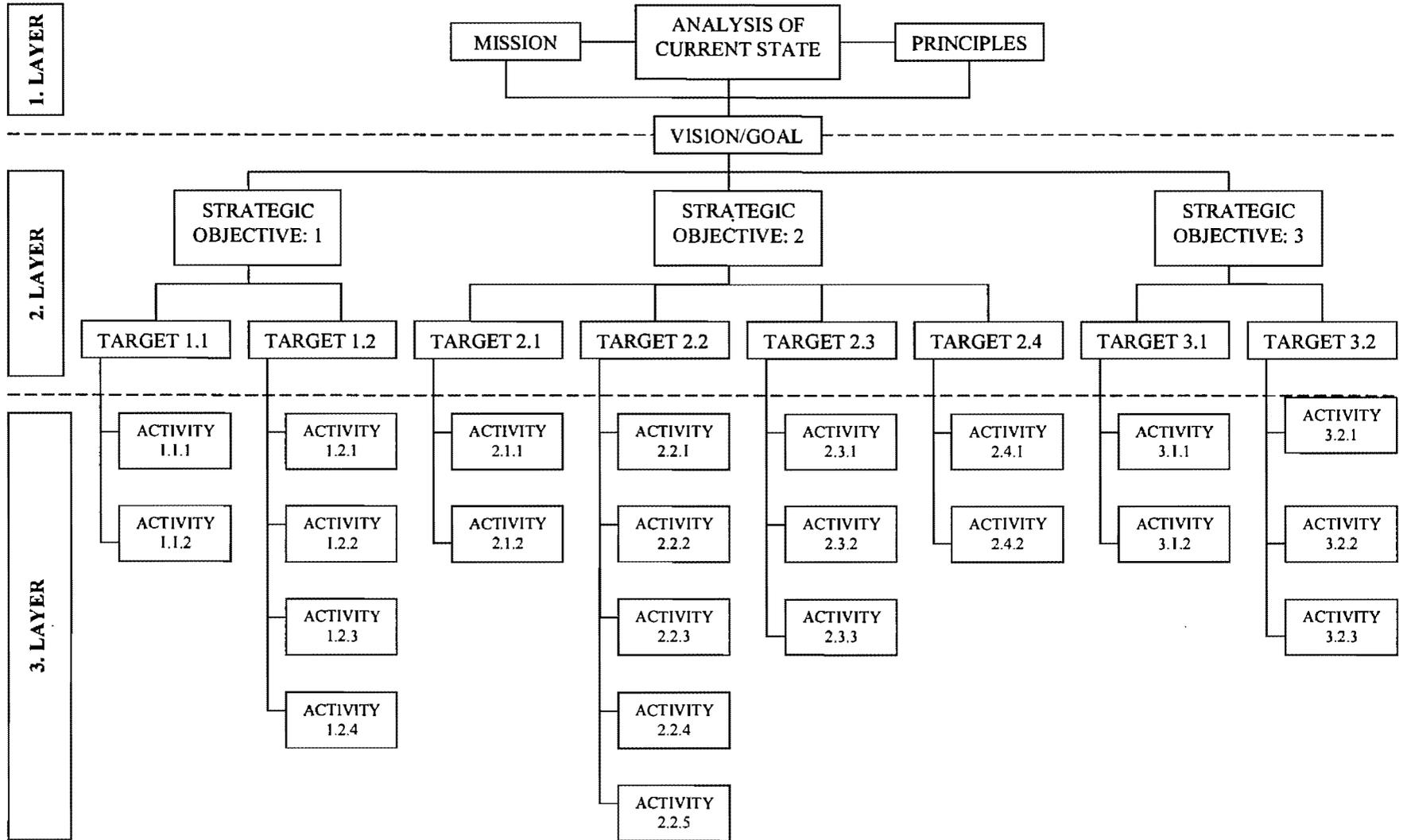
- time-bound; and,
- stated clearly and understandably.

An example of well-identified target: *The infant mortality rate will be reduced by 0.5 percent by 2007 (Why is it well-identified? Target is specific, time-bound, and can be evaluated if feasible or not by checking it against the recent years' performance).*

REQUIRED ACTIVITIES AND PROJECTS

- SSDP should explain in detail all activities and projects needed to attain the Agency's targets and goals;
- Prioritize all targets under each strategic goal;
- Identity the departments/units responsible with implementation of each task;
- Prioritize all activities and projects under each target by considering:
 - Development plans (SPPRED and RDP);
 - Annual performance reviews and programs of SPPRED and RDP;
 - Other comprehensive government programs (e.g., LOIs given to the IMF);
 - Special government programs (e.g., President's Anti-Inflation Decree);
 - Activity/project's sustainability;
 - Effectiveness;
 - Rate of return and/or efficiency.
- Interactions and linkages among activities/projects should be paid the necessary attention for rightly placing and sequencing them;
- Activities/projects should not clash with each other;
- Selection of activities/projects should be made with a view to medium- to long-term expectations; and,
- Necessary coordination with other agencies should be secured in the case of activities/projects requiring such coordination.

Diagram 3: Structure of Strategic Planning



SSDP – BUDGET /PIP RELATIONSHIP

- Agencies should base their budgets and PIPs on their SSDPs, not the other way around, within the resource and other constraints;
- SSDPs will pave the way to “program budgeting”:
 - Strategic goals/objectives correspond to programs;
 - Targets correspond to sub-programs; and,
 - Tasks (activities/projects) in a SSDP are the same as activities and projects in the program budget.
- SSDP should relate its activities/projects under each target to the State Budget and the PIP:
 - Agency should present its resources (by source) and uses (by targets/sub-programs) for last two years and next three years;
 - This will show the cost of each policy and program;
 - By discussing alternative activities/projects, Agency will show the basis of its prioritization;
- SSDP’s annual programs or their annualized medium-term segments will better help to establish their linkage with the State Budget and the PIP.

MONITORING AND EVALUATION (M&E)

- Monitoring means systematic following up and reporting on the progress in realizing the targets of SSDP;
- Evaluation means both discussing implementation results against strategic goals and targets and analyzing the consistency and appropriateness of the latter;
- The general approach and methodology to be used for monitoring and evaluation are to be identified in SSDP;
- Implementation results are reported annually and their evaluation in terms of timing and conformity with planned goals and targets provides useful feedbacks for reviewing SSDP and determining its feasibility.
- M&E contributes to the establishment of accountability in the Agency.

A separate guide is needed for M&E.

AZERBAIJAN REPUBLIC

MINISTRY OF ECONOMIC DEVELOPMENT

The Call Circular for the 2007-10 Public Investment Program

PART I: Explanatory notes on Preparation of Required Information

1. National, sectoral, regional and inter-project priorities of 2007-2010 PIP

This year Ministry of Economic Development is planning to further improve PIP and use it as an effective policy instrument for identifying and achieving National and Sectoral development goals and priorities for 2007-2010. To this end, all state enterprises are requested to submit following:

- Information on **all** capital investment expenditure requests for 2007-2010, irrespective of their funding sources (Template 1 part 2, Template 2);
- **Justification** of a request pursuant to medium and long term state development goals and priorities (Template 1 part 5);
- Copy of feasibility study for each project, if not submitted to MOED up to now;
- Copy of each project's approved cost estimate documents, if not submitted to MOED up to now;
- Copies of experts' opinion for each project.

Attached templates are expected to assist in preparation of submissions. In the event where the abovementioned information on projects is not presented, they **will not be considered** for inclusion in 2007-2010 Public Investment Program.

Submitted projects should be justified in accordance with following national, sectoral, regional priorities:

National Priorities for 2007-2010 Public Investment Policy and Program: in accordance with approved and pending National Programs GoAz considers advisable to direct investment to following spheres in 2007-2010:

- Projects supporting social sectors' development,
- Infrastructure projects supporting non-oil sector and fostering private sector investments,
- Regional and cross-regional projects eliminating inter-regional social-economic inequality,
- Projects creating new work places (fostering employment).

GoAz also is trying to pertain from investment in commercial sectors, attempting to attract private investors to such.

Cross sector priorities: 2007-2010 Public Investment Program will give preference to projects in following sectors:

- Education
- Health
- Infrastructure

- Irrigation

At the same time each sector should submit, with proper justification, five priority regions of Azerbaijan to the Ministry of Economic Development.

Priorities for pending projects: 2007-2010 Public Investment Program shall give preference to project particularly meeting following criteria:

- Project to be completed or which are close to completion (i.e. projects completed by 75% or more) in 2007;
- Project completed by 50%-75% or those meeting the abovementioned national, sectoral and regional priorities;
- Projects considered essential for implementation of other pending projects supporting above national, sectoral and regional priorities.

New public investment projects: New projects shall be selected to 2007-2010 Public Investment Program based on their technical, financial and economic analyses among those meeting national, sectoral and regional priorities.

2. Macroeconomic indicators used in public investment project assessment

Indicator	Measure unit	2006 expected	2007 forecast	2008 forecast	2009 forecast	2010 forecast
Nominal GDP	Mln. New AZM					
Actual GDP increase	%					
GDP deflator	%					
Average annual exchange rate	New AZM/US dollar					
Discount rate *	Annual %	12	12	12	12	12
Consumer rate index	Annual % variation/change					

*Rate used by the World Bank and ADB for projects funded in Azerbaijan.

3. Explanation regarding Template 1 (Public Investment Project Assessment)

External Funding Annual Disbursement scheduled by the Funding Agreement	Give the yearly disbursement plan if there is such a plan in the agreement. Otherwise, state the disbursement conditions given in the funding agreement.
Annual Utilization	Give the actual total utilization by the end of 2005 and the expected annual utilization in 2006 and beyond.
Project Analysis: Main objectives and anticipated results, outcome	The Project's expected contribution to Azerbaijan's development may have already been discussed in the Sector Development Program, and the Project's Feasibility and Appraisal Reports. If such reports do not exist or do not discuss all the required indicators, please provide your best estimates and comments on the listed indicators.
Project's Status	Indicate at what stage of the project cycle is the Project in. The project cycle is composed of the current following stages:

Project Analysis: Indicators

Net Present Value (NPV) is calculated through the formula:

$$\sum_{t=0}^T (B_t - C_t) \frac{1}{(1+i)^t}$$

where B and C represent the Project's benefits and costs, respectively, in a given year (t) during a period of a number of years (T=0.....n), equal to the project's construction time plus its economic life. "i" represents the discount rate used in transforming the future benefits and costs to their present equivalent values.

Internal Rate of Return (IRR) is the particular rate of discount that equates the present value of the flow of net benefits during the economic life of the project to the present value of the total investment costs. It is calculated through the formula:

$$\sum_{t=0}^T \frac{B_t - C_t}{(1+r)^t} = \sum_{t=0}^T \frac{K_t}{(1+r)^t}$$

where K_t represents investments in year and r the particular rate of discount (IRR) under which the equation holds true.

Cost effectiveness aims at identifying the least cost alternative among a number of projects that will all produce the same outcome.

Conversion ratio

Other

Financial/Economic Analysis: the above named indicators of the results of project analysis can be calculated by using market prices (financial analysis) or economic prices (economic analysis). It will be preferable to have calculated through both financial and economic analysis.

PART II: Required Information

..... Sector

Information on the Sector and Public Investment in the Sector

1. SECTOR OVERVIEW AND INFORMATION ON MAJOR PARTICIPANTS

- 1.1. Sector overview and the role of the sector in country's economic development;
- 1.2. Sector structure and major organization;
- 1.3. Sector's major goals and objectives and their linkage with SPPRED, RDP (2004-2008) and other State Programs;
- 1.4. Main government activities and service in the sector, and actual increase in their indicators for 2000-2005.

2. MAJOR IMPLEMENTED AND EXPECTED REFORMS AND EXISTING PROBLEMS AND EXPECTED REFORMS

3. MEDIUM TERM (2007-2010) SECTOR GOALS AND STRATEGIES AND INVESTMENT PROJECTS PROPOSED FOR ACHIEVING THESE GOALS:

Sector/sub-sector/goal	Strategies/activities	Investment projects	Required funding				Outcome/results
			total	2007	2008	2009	

4. USE OF PUBLIC INVESTMENT

- 4.1. sources and uses of investment funds attracted from external sources for 2000-2006 (according to Template 1.3);
- 4.2. Volume of investment expenditure from state budget to the sector for 2000-2006;
- 4.3. Sector's funding priorities and major funding sources of public investment (for 2000-2006);
- 4.4. final minutes and agreements of tenders held in 2005-2006;
- 4.5. list of crucial state projects suspended in past years (if any), their list, reasons for suspension and percent implemented:

Project name	Total project cost	Amount paid	Resources needed for completion	Reasons for suspending implementation

PUBLIC INVESTMENT PROJECTS EVALUATION FORM

2.1 Project background information

Sector						
Agency						
Name						
Number						
Location						
Inception/Completion date	<u>Start:</u> _____ <u>End:</u> _____					
Goods/services						
Capacity						
Project staff responsible for following: -Preparation -Approval -Contact person	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;"><u>Name:</u></td> <td style="text-align:center;"><u>Position:</u></td> <td style="text-align:center;"><u>Telephone</u></td> <td style="text-align:center;"><u>Email:</u></td> <td style="text-align:center;"><u>Date:</u></td> </tr> </table>	<u>Name:</u>	<u>Position:</u>	<u>Telephone</u>	<u>Email:</u>	<u>Date:</u>
<u>Name:</u>	<u>Position:</u>	<u>Telephone</u>	<u>Email:</u>	<u>Date:</u>		
Priority level of the project	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;"><u>1. Urgent</u></td> <td style="text-align:center;"><u>2. Necessary</u></td> <td style="text-align:center;"><u>3. Required</u></td> <td style="text-align:right;"><u>Priority justification:</u></td> </tr> </table>	<u>1. Urgent</u>	<u>2. Necessary</u>	<u>3. Required</u>	<u>Priority justification:</u>	
<u>1. Urgent</u>	<u>2. Necessary</u>	<u>3. Required</u>	<u>Priority justification:</u>			

PUBLIC INVESTMENT PROJECT EVALUATION FORM

2.2 Funding projection for 2007-2010 by sources (capital expenditure/investment demand)

(AZN)

Funding source	Total project cost	Actual Payment amount by end 2005	2006 approved/ identified amount	2007 estimate	2008 estimate	2009 estimate	2010 estimate
State budget							
Own funds							
Foreign loan							
Other*							
Total							
Exchange rate of AZN/USD							

* If any, other funding sources of the project (e.g. internal bank loan, grant) should be indicated in detail.

PUBLIC INVESTMENT PROJECT EVALUATION FORM

2.3 Foreign funding projection of the project for 2007-2010

(USD)

Country/Institution Providing External Funding*							
Date of Effectiveness							
Type (Grant, Loan, Equity)							
Total Amount							
Repayment/Grace Period							
Interest Rate							
Annual amount payable per funding agreement	<u>Cumulative</u>	As of <u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Total GoAz's share Foreign funding							
Annual utilization	<u>Cumulative</u>	<u>Used as of 2005</u>	<u>2006-expected</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Total GoAz's share Foreign funding							
Average annual exchange rate of other foreign currency received in relation with US dollar**		As of <u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>

* If there is more than one external funding please fill in additional parts of this form.

** Please fill for funds received in foreign currency other than US dollar (euro, japanese yen)

PUBLIC INVESTMENT PROJECT EVALUATION FORM

2.4 Pending/recurring project implementation report

(Current/Project price)

YEAR*	Planned resources			PIP approved resources			Revised PIP appropriation			Actual paid amount under PIP			Actual project costs			Realization %**
	Internal	External	Total	Internal	External	Total	Internal	External	Total	Internal	External	Total	Internal	External	Total	
2000																
2001																
2002																
2003																
2004																
2005																
2006 (expected)																
TOTAL																

*Please add rows if necessary

** Realization (%) = (Actual project expenditure/Planned project resources) X 100

PUBLIC INVESTMENT PROJECT EVALUATION FORM

2.5 Project justification and analysis summary

<p>Strategic Context of Project*</p>	<ul style="list-style-type: none"> -Linkages/relations to SSDP, SPPRSD and SPSEDR; -Contribution to Production in non-oil sectors; -Contribution to Employment in non-oil sectors; -Contribution to new technology; -Environmental impact and related investment; -Economic Life of the Project.
<p>Project's Current Status *</p>	
<p>Current and Anticipated Issues, Problems and Proposed Measures*</p>	
<p>Major project analysis indicators**</p>	<ul style="list-style-type: none"> -Net Present Value (NPV) -Internal Rate of Return (IRR) -Cost effectiveness analysis (particularly, for social sector projects) <div style="text-align: right; margin-top: 10px;"> <u>Financial</u> <u>Economic</u> </div>

* Please expand the row as much as needed

**Submit the supporting documentation

TEMPLATE 3

Information on Capital Expenditure and Intangible Asset Purchase Items of State Budget for 2006-2010*

SECTOR:

AGENCY:

at prices

ACTIVITY OVERVIEW (annual)	BUDGET FUNDED	EXPECTED OUTCOME
2000 (implementation)		
2001 (implementation)		
2002 (implementation)		
2003 (implementation)		
2004 (implementation)		
2005 (implementation)		
2006 (EXPECTED)		
2007 (projection)		
2008 (projection)		
2009 (projection)		
2010 (projection)		

* This table should include information on expenditure related to items 282200 and 310000 of "Economic Classification of Budget Expenditure" under Single/Unified Budget Classification

AZERBAIJAN REPUBLIC
MINISTRY OF ECONOMIC DEVELOPMENT
PUBLIC SECTOR BALANCE OF RESOURCES AND USES

		CENTRAL AND LOCAL GOVERNMENTS					STATE-OWNED ENTERPRISES					TOTAL
		State Budget	Social Protection Fund	SOFAZ	Municipals	Sub-total	Operational	Financial	Sub-total	Privatization	Sub-total	
1	Taxes											
1a	Direct											
1b	Indirect											
2	Non-tax											
3	Factor Income											
4	Social Funds											
5	Current Transfers											
I	PUBLIC SECTOR DISPOSABLE INCOME											
II	CURRENT EXPENDITURES											
III	PUBLIC SAVINGS											
IV	INVESTMENTS											
a	Fixed capital											
b	Stock changes											
V	SAVINGS-INVESTMENT GAP											
VI	CAPITAL TRANSFERS											
a	Wealth taxes											
b	Other capital transfers											
c	Nationalization and revaluations											
VII	CASH-BANK/BORROWING											
a	Change in cash-bank											
b	Net foreign borrowing											
	* Foreign debt repayment											
	* Foreign loan utilization											
c	Net domestic borrowing											

AZERBAIJAN REPUBLIC
MINISTRY OF ECONOMIC DEVELOPMENT
Public Investment Program for 20...-

ANNOTATED OUTLINE

INTRODUCTION

The expected rapid increase in Azerbaijan's oil revenue augments the importance of necessary improvements in the institutional and technical capacity of the GOAZ to formulate sound public investment policies and programs (PIPP). The issue has in fact additional urgency because of the fact that Azerbaijan's oil boom is expected to be relatively short lived. The Government has therefore adopted this PIPP Manual from (day/month) 2007 to strengthen the key economic ministries' as well as the major line ministries' capacities for preparing sound public investment policies and projects.

With LMs/agencies' submission of improved sector information and better justified investment projects spending proposals in line with the requirements of this Manual, MOED is expected, with the cooperation of MOF and ANB, to develop a sound public investment policy for the medium-term (next four years) that will be reflected in the next Public Investment Program with the following outline.

ECONOMIC POLICIES AND REFORMS

This chapter will present a review of recent performance of the Azerbaijan economy under the following headings with a view to providing a background to justify (or lead to) the proposed PIPP for 20...-. Therefore, **focus on selected factors which are important for investment** in general and for PIPP in particular.

Recent Economic Developments

Macroeconomic Policies

Structural Reforms and Policies

DEVELOPMENT OBJECTIVES AND STRATEGIES

GOAZ aims at identifying the **proper public investment strategy** for attaining the country's medium- and long-term economic and social **development objectives**. In order to be a meaningful (i.e., operationally useful) guide and policy instrument for the central and line ministries (agencies), this **strategy should be quite specific** in terms of investment volume; annual increase; sectoral allocation; public-private breakdown; technological, skill and manpower requirements; foreign exchange and import requirements, etc. Such specificity, however, will require that **development objectives and strategies be also identified, both at national and sector level, in time-bound and measurable terms** (e.g., a specific

average rate of growth over a given period; a certain reduction in the share of population below the poverty line by a certain date). Moreover, Government needs to **prioritize the national and sectoral development objectives** because they will all be competing for the same volume of limited resources. All this can be possible only if national objectives and strategies are identified on the basis of **available resources and potential constraints within a macro and sectoral consistency framework**.

The following instruments, which are used in Azerbaijan for economic and social development planning, should, if prepared in the way noted above, normally provide appropriate guidance and instructions to the formulation of a specific and sound public investment policy and program. Simultaneously with **MOED's ongoing and planned efforts to improve other planning instruments**, the preparation of the PIP along the lines of this Manual with an emphasis on the national and sectoral development framework will make up the temporary shortcomings of these planning instruments. The PIP's review and evaluation of recent public investment policies and program with reference to these planning instruments will therefore shed light on necessary improvements not only in the next PIPP but also in the implementation of these instruments.

State Program for Poverty Reduction and Sustained Development (SPPRSD)

State Program for Socio-Economic Development of Regions (SPSEDR)

Sector Strategic Development Plans (SSDPs)

Sectoral Strategies:

- Agriculture
- Water Resource Development and Irrigation
- Energy
- Transportation
- Industry
- Environment

AN OVERVIEW OF THE PUBLIC INVESTMENT POLICY AND PROGRAM

As a major policy instrument for shaping up the country's future social and economic development, the public investment policy and program should be all inclusive, covering all capital spending of the public sector agencies, and should be evaluated with an eye on private sector investment performance and tendencies within a national and sectoral development framework. **"All inclusiveness"** is important because only in that case it will be possible to analyze and draw lessons and guidance from the past and current public investment programs for future policies. All inclusiveness, however, should not cause losing sight of each major public agency's performance and responsibilities. **Keeping an eye on private sector investment** is also very important because the main objective of public investment policy is to direct resources to those projects which are socially necessary but not attractive enough to the private sector, including those infrastructure projects which are essential for private sector development. Finally, **developing PIPP within a national and sectoral development framework** is the only way to assure that inter-linkages are considered and that inconsistencies avoided.

Size of Public Investment

Sectoral Distribution of Public Investment

External Financing of Public Investment

The 20 PIP

Size, Distribution and Financing of PIP

Some Major Issues of Implementation

AZERBAIJAN REPUBLIC
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PUBLIC INVESTMENT PROJECT BRIEF

1. Project Background Information

Project #

Sector						
Agency						
Name						
Number						
Location						
Inception/Completion date	<u>Start:</u> _____ <u>End:</u> _____					
Goods/services						
Capacity						
Project staff responsible for following: -Preparation -Approval -Contact person	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Name:</u></td> <td style="text-align: center;"><u>Position:</u></td> <td style="text-align: center;"><u>Telephone</u></td> <td style="text-align: center;"><u>Email:</u></td> <td style="text-align: center;"><u>Date:</u></td> </tr> </table>	<u>Name:</u>	<u>Position:</u>	<u>Telephone</u>	<u>Email:</u>	<u>Date:</u>
<u>Name:</u>	<u>Position:</u>	<u>Telephone</u>	<u>Email:</u>	<u>Date:</u>		
Priority level of the project	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>1. Urgent</u></td> <td style="text-align: center;"><u>2. Necessary</u></td> <td style="text-align: center;"><u>3. Required</u></td> <td style="text-align: right;"><u>Priority justification:</u></td> </tr> </table>	<u>1. Urgent</u>	<u>2. Necessary</u>	<u>3. Required</u>	<u>Priority justification:</u>	
<u>1. Urgent</u>	<u>2. Necessary</u>	<u>3. Required</u>	<u>Priority justification:</u>			

PUBLIC INVESTMENT PROJECT BRIEF

2. Funding Projection by Source

Project #		(AZN)					
Funding source	Total project cost	Actual amount paid by end-20.. last year	20 .. expected amount current year	20 .. estimate	20 .. estimate	20 .. estimate	20 .. estimate
State budget							
Own funds							
Foreign loan							
Other*							
Total							
Exchange rate of AZN/USD							

* If any, other funding sources of the project (e.g. internal bank loan, grant) should be indicated in detail.

PUBLIC INVESTMENT PROJECT BRIEF

3. Foreign Funding of the Project

Project #	(USD)
Country/Institution Providing External Funding*	
Date of Effectiveness	
Type (Grant, Loan, Equity)	
Total Amount	
Repayment/Grace Period	
Interest Rate	
	<u>Cumulative</u> As of <u>20..</u> <u>20..</u> <u>20..</u> <u>20..</u> <u>20..</u> <u>20..</u>
Payable per Funding Agreement (Total)	
GoAz's share	
Foreign funding	
Annual utilization	
GoAz's share	
Foreign funding	
Average exchange rate of forex received to US\$**	

* If there is more than one external funding please fill in additional parts of this form.

** Please fill for funds received in foreign currency other than US dollar (euro, japanese yen)

PUBLIC INVESTMENT PROJECT BRIEF

4. On-going Project Implementation Report

Project #

(AZN Current/Project price)

YEAR*	Planned resources			PIP approved resources			Revised PIP appropriation			Actual paid amount under PIP			Actual project costs			Realization %**
	Internal	External	Total	Internal	External	Total	Internal	External	Total	Internal	External	Total	Internal	External	Total	
20 ..																
20 ..																
20 ..																
20 ..																
20 ..																
20 ..																
20 .. Current Year (expected)																
TOTAL																

*Please add rows if necessary

** Realization (%) = (Actual project expenditure/Planned project resources) X 100

PUBLIC INVESTMENT PROJECT BRIEF

5. Project Justification and Analysis Summary

Project #

Strategic Context of Project*	<ul style="list-style-type: none"> -Linkages/relations to SSDP, SPPRSD and SPSEDR; -Contribution to production in non-oil sectors; -Contribution to employment in non-oil sectors; -Contribution to new technology; -Environmental impact and related investment; -Economic life of the project.
Project's Current Status *	
Current and Anticipated Issues, Problems and Proposed Measures*	
Major project analysis indicators**	<ul style="list-style-type: none"> -Net Present Value (NPV) <u>Financial</u> -Internal Rate of Return (IRR) <u>Economic</u> -Cost effectiveness analysis (particularly, for social sector projects)

* Please expand the row as much as needed

**Submit the supporting documentation

AZERBAIJAN REPUBLIC
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20...-... PUBLIC INVESTMENT PROGRAM
PROPOSED PROJECTS LIST (PPL)

Sector:
LMAgency

Project No.	Project Name	Rayon/ City/Town	Character- istic*	Start Date	Finish Date	Total Cost			Cumulative Spending until end- current year			Spending during 1st year of PIP			Spending during 2nd year of PIP			Spending during 3rd year of PIP			Spending during 4th year of PIP		
						Financing Source		Sum	Financing Source		Sum	Financing Source		Sum	Financing Source		Sum	Financing Source		Sum	Financing Source		Sum
						External	Internal		External	Internal		External	Internal		External	Internal		External	Internal		External	Internal	
Total amount for the Organization																							
Total amount for projects under in preparation**																							
A. Projects whose preparation studies will end at the end of next year																							
B. Projects whose preparation studies will continue after the end of next year																							
Total amount for projects under ongoing implementation																							
A. Projects whose implementation will be completed at the end of next year																							
B. Projects whose implementation will continue after the end of next year																							
Total amount for new projects starting during PIP period																							
A. Projects whose implementation will be completed at the end of next year																							
B. Projects whose implementation will continue after the end of next year																							

Note:

(*) 'Character' should be a standard description of the final productive nature of the investment object or service. If it is rehabilitation or improvement, the characteristic should state the expected final quality or capacity.

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**Project Concept Paper
(Template)**

Any line ministry (LM) or a State agency which is planning to pursue a certain project idea should prepare a Project Concept Paper for the initial review and evaluation of it by first the management of the LM/agency and then by MOED and MOF. Submission of a Project Concept Paper does not imply any guarantee of its acceptance, but it guarantees the inception of the project development process for the underlying project idea.

A Project Concept Paper should contain at least the following:

1. Cover Page / Introduction:

- a) Name and address of LM/agency;
- b) Type of agency (e.g., LM, State Committee, SOE) and sector;
- c) Other organizations which may be involved in the project and/or its funding;
- d) Contact person, his position, phone number, and e-mail address; and
- e) Signature of the authorized official.

2. Technical Information:

- a) Concise title and objective of proposed project;
- b) Discussion of the:
 - Objectives;
 - Methods of approach;
 - Amount of effort (labor) to be employed;
 - Anticipated results and beneficiaries;
 - How the work will contribute to sustainable development in the sector;
- c) Type of support needed (other than funding).

3. Supporting Information:

- a) Proposed estimated cost;
- b) Brief cost breakdown;
- c) Any proposed cost sharing;
- d) Proposed duration of project;
- e) Brief description of the LM/agency's previous experience with the same and/or similar types of proposed project.

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Template for a Project Pre-Feasibility Study

- 1. Executive summary:** discuss all the main information on the project and the main findings of the pre-feasibility study.
- 2. Introduction:** purpose of the study; its coverage and structure; how the study was conducted; summary findings; conclusions and recommendations.
- 3. Description and Coverage:** name; purpose; type; technical direction; size; implementation period; location and place; expected outcomes; main inputs; target stakeholder, population, and regions; responsible organization and its statute; implementing/operating agency.
- 4. Project background:**
 - a) Social and economic situation (general, sectoral and/or regional)
 - b) Sectoral and/or regional development policies and programs
 - c) Institutional structure and legislative environment
 - d) Origin of the project idea and its appropriateness
 - Justification based on sectoral and regional development policy and purposes
 - Project linkages with other past, ongoing and planned projects
 - Process of originating the project idea
 - Other studies, research, and works related to the project
- 5. Demand for the project:** demand analysis, marketing research and analysis, needs analysis, problem analysis, etc.
 - a) National and regional level demand analysis
 - Basic determinants and indicators of the demand
 - Previous growth trends of demand
 - Information on current demand
 - Current capacity and history of capacity utilization
 - b) Estimate of future national and regional demand
 - a. Sectoral/regional economic growth scenarios (targets and strategies) and their relation to demand estimates
 - Growth potential of demand and its relation to demand estimate
 - Documentation of methods of estimation and studies
- 6. Production/delivery of goods and/or services:**
 - a) Program of production of goods and/or services
 - b) Program of marketing/delivery of goods and/or services
- 7. Project setting/location:**
 - a) Geographic/physical characteristics (geography, climate, soil and topography, water, plants, other natural resources)

- b) Economic and physical infrastructure (access to raw materials and markets, transportation, communication, water-energy access, other ancillary support)
- c) Social infrastructure (population, settlements, income distribution, social services, cultural services, etc.)
- d) Institutional infrastructure
- e) Ecological/environmental pre-evaluation
- f) Alternatives to location and to financing of the setting

8. Technical analysis and plans:

- a) Project technology choice and capacity analysis
- b) Alternative technology/methodology analysis and choice
- c) Environmental impact of the chosen technology and costs of environmental protection
- d) Technical design (preparing the land, construction, main and ancillary equipment/machinery, maintenance considerations, time frame)
- e) Investment costs (land, construction, equipment/machinery)

9. Project inputs: primary and intermediate inputs, input costs

10. Organizational structure, management and human resources: organizational structure; production/delivery management; general expenditures; personnel requirements and estimated costs

11. Project's management and implementation program:

- a) Project implementing organizations and technical capacities
- b) Project organization's management approach
- c) Project realization program

12. Operational revenues and expenditures:

- a) Pricing of products and/or services
- b) Capacity utilization estimates
- c) Estimate of revenues and expenditures

13. Total investment and its annual profile:

- a) Total investment
 - Land
 - a. Fixed costs (project studies, licenses/patents, land amelioration, construction preparation, construction, environmental protection, road access, equipment and machinery, transport, insurance, customs, assembly, vehicles, start-up, unexpected cost allowances)
 - Interest costs
 - Operational costs
- b) Annual profile

14. Financing of the project:

- a) Managing and operating organization's financial structure
- b) Financing structure of the project
- c) Sources and conditions of financing
- d) Costs of financing
- e) Financing plan

15. Project analysis:

- a) Financial analysis
 - Financial framework and liquidity analysis

- Discounted cash flow analysis
- Financial cost-benefit analysis
- Impact on state budget
- b) Economic analysis
 - Economic costs
 - Economic benefits
 - Economic cost-benefit analysis
 - Cost effectiveness analysis
 - Other economic impacts (value added, etc)
- c) Social analysis
 - Social cost-benefit analysis
 - Socio-cultural analysis (participation, gender, governance)
 - Other social impacts
- d) Sensitivity analysis
- e) Risk analysis

16. Annexes

- a) Environmental impact evaluation
- b) Other supporting reports (seismology, etc)

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Project Appraisal Report

**Annotated Outline
(Template)**

The Project Appraisal Report (PAR) consists of concise, substantially self-contained chapters on the project's principal features, justifications, and implementation aspects. For any investment project proposed by a LM/agency for public sector funding, MOED will prepare a PAR along the following lines in order to assess the project's value (contribution) in terms of (to) the national and sectoral development objectives and evaluate the critical risks to which it is exposed:

A. Project Development Objectives

- 1) Project Development Objectives
- 2) Key Performance Indicators

B. Strategic Context

- 1) Sector-related Government goals supported by the project
- 2) Main sector issues and Government/LM/Agency strategy
- 3) Sector issues to be addressed by the project and strategic choices

C. Project Description Summary

- 1) Project components
- 2) Key policy and institutional reforms supported by the project
- 3) Benefits and target population
- 4) Institutional and implementation arrangements

D. Project Rationale

- 1) Project alternatives considered and reasons for rejection
- 2) Major related projects in sector completed, on-going, and planned
- 3) Lessons learned and reflected in proposed project design
- 4) Indications of LM/Agency's commitment to the strategic context of the project

E. Summary Project Analysis

- 1) Economic
- 2) Financial
- 3) Technical
- 4) Institutional
- 5) Social
- 6) Environmental assessment
- 7) Participatory approach

F. Sustainability and Risks

- 1) Sustainability
- 2) Critical risks
- 3) Possible controversial aspects

Annexes

- Annex 1: Project Design Summary**
- Annex 2: Project Description**
- Annex 3: Estimated Project Costs**
- Annex 4: Cost Benefit Analysis**
- Annex 5: Financial Summary**
- Annex 6: Procurement and Disbursement Arrangements**
- Annex 7: Project processing Schedule**
- Annex 8: Documents in the Project File**

The above outline is almost standard for all PARs prepared by the major IFIs. MOED and other GOAZ agencies' staff who will be involved in the preparation of PAR could, therefore, easily review some actual samples of such reports prepared by WB and ADB for their projects in Azerbaijan and acquire a good understanding of how to discuss what in the outline given above.

Khalg Newspaper, February 15, 2006

DECREE OF THE PRESIDENT OF THE AZERBAIJAN REPUBLIC

On Procedures for Conclusion of Agreements on Loans with Government Guarantee

With a view to unifying the practice of conclusion of agreements on the loans borrowed with a government guarantee, increasing responsibility of executive authorities and state enterprises with respect to borrowing and the use of such loans and preventing conclusion of the loan agreements contradicting financial and economic interests of the state, and in accordance with Article 119 of the Constitution of the Azerbaijan Republic, I decree:

1. It shall be determined that:

1.1. A proposal on commencing negotiations on the loans to be borrowed with the guarantee of the Azerbaijan Republic Government shall be presented to the Cabinet of Ministers of the Azerbaijan Republic by central executive authorities.

1.2. State enterprises or enterprises whose control packet of shares belongs to the state (hereinafter – state enterprise) shall submit their proposals on launching negotiations on the loans to be borrowed with the guarantee of the Azerbaijan Republic Government to the Cabinet of Ministers of the Azerbaijan Republic, as a rule, through central executive authority that is in charge of public administration in the respective area.

1.3. Documents providing justification for conclusion of the loan agreement and economic appraisal of the agreement shall be attached to the proposal envisaged under paragraphs 1 and 2 of this Decree.

1.4. The Cabinet of Ministers of the Azerbaijan Republic shall review the proposals envisaged under paragraphs 1 and 2 of this Decree, within 2 months, and commission additional economic and legal examination, when necessary.

1.5. In case the loan is to be borrowed by a state enterprise, the Cabinet of Ministers of the Azerbaijan Republic shall examine whether this enterprise is capable to repay the loan under the lender's conditions and for this purpose prepare an opinion on economic and financial status of the enterprise.

1.6. Should the Cabinet of Ministers of the Azerbaijan Republic consider the borrowing with the government guarantee as expedient, it shall give its consent to the head of the competent central executive authority or state enterprise for the commence of negotiations with the respective lender.

1.7. During the negotiations regarding the loans to be borrowed with the guarantee of the Azerbaijan Republic Government it should be taken into account that a draft loan agreement should comply with the following principles:

1.7.1. Compliance with the Constitution of the Azerbaijan Republic;

1.7.2. Rule of laws of the Azerbaijan Republic;

1.7.3. Avoiding detriment to financial and economic interests of the Azerbaijan Republic;

1.7.4. Securing the government guarantee with corresponding resources.

1.8. Upon being agreed among parties, draft agreement on the loan with government guarantee shall be submitted to the Cabinet of Ministers of the Azerbaijan Republic. Outcomes of the financial/economic and legal examinations of the draft agreement shall be attached to the draft. Financial/economic and legal examinations of draft agreements are prepared by specialists of competent central executive authorities (state enterprises). When necessary, central executive authorities (state enterprise) may use, for the conduct of financial/economic and legal examinations, services of well-known agencies specialized in this area. The Cabinet of Ministers of the Azerbaijan Republic may appoint additional financial/economic and legal examinations on the draft loan agreement.

1.9. After the draft loan agreement is approved by the Cabinet of Ministers of the Azerbaijan Republic, it shall be submitted to the President of the Azerbaijan Republic together with the documents foreseen in paragraphs 1.3, 1.4, 1.5 and 1.7, at least a month before conclusion of the agreement.

1.10. After the President of the Azerbaijan Republic gives its approval for conclusion of the loan agreement, the Cabinet of Ministers of the Azerbaijan Republic shall vest the head of the competent central executive authority (state enterprise) with the authority to conclude a loan agreement with a government guarantee.

1.11. The agreement on the loan borrowed with the guarantee of the Azerbaijan Republic Government, which is signed in a respective manner, shall be approved by the Cabinet of Ministers of the Azerbaijan Republic and a guarantee of the Azerbaijan Republic Government for this loan shall be provided in a form agreed among parties.

1.12. Only in exclusive cases, the agreement on the loan borrowed with the guarantee of the Azerbaijan Republic Government may envisage the rules different from the rules prescribed by laws of the Azerbaijan Republic or decrees of the President of the Azerbaijan Republic. In this case, the necessity for provision of the rules different from the rules prescribed by the laws of the Azerbaijan Republic or decrees of the President of the Azerbaijan Republic shall be justified by the Cabinet of Ministers of the Azerbaijan Republic, in addition to financial/economic and legal examinations, when the loan agreement is submitted to the President of the Azerbaijan Republic.

1.13. Should an agreement on the loan borrowed with the guarantee of the Azerbaijan Republic Government envisage the rules different from the rules provided in laws of the Azerbaijan Republic, this agreement shall be submitted for approval to the National Assembly of the Azerbaijan Republic by the President of the Azerbaijan Republic.

1.14. Should an agreement on the loan borrowed with the guarantee of the Azerbaijan Republic Government envisage the rules different from the rules provided in decrees of the Azerbaijan Republic, it shall be approved by the President of the Azerbaijan Republic.

1.15. The Cabinet of Ministers of the Azerbaijan Republic shall report, at least annually, to the President of the Azerbaijan Republic regarding effective and purposeful utilization of the loan with government guarantee. Should the term of the loan agreement is less than a year, this information shall be submitted a month before termination of the loan's term.

2. Within 2 months, the Cabinet of Ministers of the Azerbaijan Republic shall prepare and submit to the President of the Azerbaijan Republic draft regulations for organization of competitions for issuance of the guarantee of the Azerbaijan Republic Government for the loans borrowed by private enterprises in the Azerbaijan Republic.

3. The Cabinet of Ministers of the Azerbaijan Republic shall settle other issues raising out of this Decree.

4. This Decree shall come into force upon being signed.

Ilham Aliyev
President of Azerbaijan Republic

Baku, February 13 2006

AZERBAIJAN REPUBLIC

MINISTRY OF ECONOMIC DEVELOPMENT

Policy-Based Prioritization of Public Investment Projects

A Sample Method

The PIPP Manual emphasized the importance of both micro- and macro-policy-based prioritization of public investment projects for screening and sifting them according to their contribution to the national and sectoral development objectives and strategies, particularly to reduction of poverty and regional imbalances (see par. # 4.6.2.8). Such qualitative (non-quantitative) prioritization, however, involves using various ranking and weighting methods. There are no internationally adopted standard methods that can be recommended for use by GOAZ. MOED and MOF should jointly develop, in cooperation with LMs/agencies and State research institutes, appropriate ranking and weighting systems for policy-based prioritization of public sector projects. Three examples of such systems, which can be found in the web-sites of other countries' planning and budgetary agencies, are provided here to help the subjected understood better.

Example 1: A hypothetical example developed by the USAID/PIP Project:

<u>Policy Criteria</u>	<u>Weights</u>	<u>Projects</u>			
		<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>
A	30	4	3	1	2
B	35	1	4	2	3
C	20	4	1	2	3
D	15	2	3	4	1
TOTAL	100	265	295	200	240

A LM/agency has 4 projects (a, b, c, and d) and ranks them against each of the four policy criteria, which were established and weighted jointly by MOED and MOF and approved by HPPC. The hypothetical Example 1 shows that the LM/agency's projects portfolio comprises 4 projects and they are prioritized as b, a, d, and c on the basis of the four policy-based criteria.

Example 2: The following example is taken from the US Federal Government's General Accounting Office publication

Prioritizing Projects within a Portfolio

Capital assets should be compared against one another to create a prioritized portfolio of all major capital assets. Just as an individual invests in a diverse portfolio of securities, agencies invest in a diverse portfolio of capital assets. For the individual investor, returns are measured in dividends or capital gains. While the benefits and costs

of capital asset portfolios should be quantified in monetary terms when feasible, agencies also measure return on the basis of outputs and outcomes.

For the individual investor, some investments are more risky than others. Similarly, an agency's capital asset investments have various levels of risk. Sound planning for procurement and operational management can mitigate risk. But *all* assets, especially those requiring extensive development work before they can be put into operation, are inherently risky and should be justified by high return. Agencies should choose a portfolio of capital investments that maximize return to the taxpayer and the Government -- at an acceptable level of risk.

One approach to devising a ranked listing of projects is to use a scoring mechanism that provides a range of values associated with project strengths and weaknesses. Figure 8 on the following page shows examples of how some key risk and return criteria might be scored. These examples are drawn from multiple best practices organizations. Higher scores are given to projects that meet or exceed positive aspects of the decision criteria. Additionally, in this example, weights have been attached to criteria to reflect their relative importance in the decision process. To ensure consistency, each of the decision criteria should have operational definitions based on quantitative or qualitative measures. A scoring and ranking process, such as the one depicted in Figure 8, may be used more than once, and in more than just this step to limit the number of projects that will be considered by an executive decision-making body.

An outcome of such a ranking process might produce three groups of projects:

- ***Likely winners.*** One group, typically small, is a set of projects with high returns and low risk that are likely "winners."
- ***Likely drop-outs.*** At the opposite end of the spectrum, a group of high-risk, low-return projects that would have little chance of making the final cut.
- ***Projects that warrant a closer look.*** In the middle is usually the largest group. These projects have either a high-return/high-risk or a low-return/low-risk profile. Analytical and decision-making energy should be focused on prioritizing these projects where decisions will be more difficult. At the end of this step, senior managers should have a prioritized list of capital investments and proposals with supporting documentation and analysis.

Example 3: The following example is taken from the World Bank, "Russia: Towards Improving the Efficiencies of Public Investment Experience", Report No. 22693-RU, pp.62-65.

Sample approach for prioritizing projects

<i>Economic Internal Rate of Return</i>	
Given criterion is useful for comparing projects distinguished by various risk levels. Projects with higher internal rate of return (IRR) value shall have more priority compared to projects with lower IRR.	<p>IRR>60% - 7 points 60%>IRR>40% - 5 points 40%>IRR>30% - 3 points 30%>IRR>20% - 2 points 20%>IRR>10% - 1 point IRR<10% or no calculation – 0 points</p>
<i>Social significance of a project</i>	
<p>Evaluation of a project is based on adequacy to the following aspects of social significance:</p> <ul style="list-style-type: none"> • Provision of housing for public servants and re-deployed servicemen • Improving employment of the population and reduction of unemployment • Improving access to the quality health services • Improving access to the quality education services • Poverty reduction: <ul style="list-style-type: none"> - Provision of sufficient potable water supply to the population Reduction of death-rates - Improving the scope of secondary education cover - Enhancement of economic opportunities for the poor - Ensuring access to provision of social services for the poor - Coverage of distant rural districts • Environmental concerns of the project 	<p>Evaluation is based on summing-up of applicable aspect-specific points.</p> <p>4 points</p> <p>2 points</p> <p>2 points</p> <p>2 points</p> <p>4 points</p> <p>2 points</p> <p>2 points</p> <p>4 points</p> <p>4 points</p> <p>2 points</p> <p>4 points</p>
<i>Environmental safety of the project</i>	
<p>Evaluation of environmental safety of the project (taking into consideration environmental pollution contingencies and utilization of limited irreplaceable natural resources).</p> <p>Environmental safety of a project</p> <p>A project involves avoidable contingencies</p>	<p>4 points</p> <p>2 points</p>

A project bears high hazard of risk for the environment	(-4) points
<i>Internal co-financing (from the budgetary resources) requirement</i>	
Considering certain difficulties with provision of internal co-finance, absence of the requirement demanding obligatory participation of the Government in co-financing of a part of a project's cost is thought an advantage.	Up to 10% of the overall cost of a project – 4 points 10% to 20% of the overall cost of a project – 2 points More than 20% of the overall cost of a project – (-2) points
<i>Terms of procurement within the framework of a project</i>	
A project that implies procurement of work, goods or services based on competitive bidding, invites maximum possible amount of participants to take part in the bidding and has no restriction on amount and pattern of bidding participants, shall have more priority over the projects that impose restrictions on bidding.	No restriction on bidding – 4 points Purchase of work, goods and services from domestic sources only– (-2) points Bidding is not allowed (instead, work, goods or services are purchased directly) – (-4) points
<i>Project-related risks</i>	
Priority of a project depends on the level of risks involved. Higher risks result in substantial decrease of a project's priority.	Insignificant risks – 3 points Moderate risks – 2 points Substantial risks – 1 point High risks – 0 points
<i>Project implementation evaluation (for current projects)</i>	
Based on use of special indicators each of the projects is evaluated in terms of implementation and accomplishment of tasks and goals set within the framework of the project. Unsatisfactory implementation of a project shall result in less priority compared to the successfully accomplished ones.	Procurement quality: Satisfactory – 1 points Unsatisfactory – (-1) points Compliance with the project implementation timetable: Compliant – 1 points Non-compliant – (-1) points

	<p>Project finance development rates:</p> <p>Satisfactory – 1 points Unsatisfactory – (-1) points</p> <p>Quality of work, goods and services:</p> <p>Satisfactory – 1 points Unsatisfactory – (-1) points</p> <p>Compliance with the tasks and goals of a project:</p> <p>Compliant – 1 points Non-compliant – (-1) points</p> <p>Evaluation of compliance is premature – 0 points</p>
<i>Evaluation of implementer's capacity for maintenance and exploitation of the resources acquired</i>	
<p>Should the end-implementor have no sufficient amount of finance to maintain and utilize/exploit resources purchased on account of borrowed funds (including specialists who are knowledgeable, skillful and experienced enough to be capable of maintaining and utilizing resources purchased), the consequence is less priority of a project.</p>	<p>Sufficient capacity / amount of finance – 2 points</p> <p>Insufficient capacity / amount of finance – (-2) points</p>
<i>Inspecting quality of preparation for a project</i>	
<p>Quality of preparation for a project is being appraised based on availability of detailed project documentation (terms of reference) as well as project auditing results. Absence of detailed Terms of Reference as well as negative auditing results considered disadvantage at evaluation of a project.</p>	<p>Available terms of reference and the auditing results are positive – 2 points</p> <p>Terms of reference are not available or in the making – 0 points</p> <p>Terms of reference are available, yet auditing results are negative – (-2) points</p>
<i>Availability within executive agency (ministry / department) of a structural unit responsible for administering sector investment projects associated with the project under consideration</i>	

<p>Availability within executive agency (ministry / department) of a structural unit (several structural units) that is responsible for administering sector investment projects associated with the project under consideration, and has experience of implementing various international projects is considered advantage at evaluation of the project.</p>	<p>Availability of such executive agency and correspondent experience in implementation of international projects – 2 points</p> <p>Availability of such executive agency – 1 point</p> <p>Absence of such unit – 0 points</p>
<p>Maximum aggregate result: 37 points</p>	

The above weighting scheme gives higher weights to projects for capital repairs and equipment purchases, and against new construction. This is important to address the rapid depreciation of the capital stock and its efficiency. The weighting scheme also gives preference to projects with low future recurrent costs which would help to minimize future costs and enable the sustainability of the new investments.

AZERBAIJAN REPUBLIC

MINISTRY OF ECONOMIC DEVELOPMENT

Financial and Economic Analysis of Public Investment Projects

I- Introduction

The financial analysis of a project estimates the profit accruing to the project-operating entity, whereas economic analysis measures the effect of the project on the national economy. For a project to be economically viable, it must be financially sustainable, as well as economically efficient. If a project is not financially sustainable, economic benefits will not be realized. Financial analysis and economic analysis are therefore two sides of the same coin and complementary, and therefore, form part of an integrated framework for project assessment. Both types of analysis are conducted in monetary terms, the major difference lying in the definition and valuation of costs and benefits.

In financial analysis all expenditures incurred under the project and revenues resulting from it are taken into account. Based on the relevant financial data, including prices (and assumptions on their future price levels), there will be a need to develop financial cash flow forecasts for the proposed project.

Economic analysis attempts to assess the overall impact of a project on improving the economic welfare of the citizens of the country concerned. It assesses a project in the context of the national economy, rather than for the project participants or the project entity that implements the project. The following will highlight the main differences of economic and financial analysis.

II- Identification and Quantification of Costs and Benefits

For directly productive projects, the **main benefits** will be in the form of production that is sold. It is important to determine whether a project's output is incremental to existing supplies. If the project is small relative to the size of the market, it is likely that the project output will be fully incremental. For most indirectly productive projects, the type and extent of expected benefits can be quantified through such factors as time and cost savings, increased access, improved health, and so on, most of which have a productive effect, as well as a direct effect on welfare. Some benefits of indirectly productive projects will not be quantifiable. For example, a newly sited bridge may not only reduce travel time for haulage trucks, but may also encourage greater social and political interaction by those on both sides of the river. A dam project may create a reservoir that not only can be used for fishing or recreational purposes, but also can have a scenic value for existing inhabitants. Such benefits should be stated along with an estimate of the number of beneficiaries.

The various **cost components** include the following items:

a) **Cost of technical analysis/assessment:** the fundamental parameter for the project begins with the assumed technical assumptions which underpin the project design, and from which other aspects will be designed in an integrated manner (e.g., technical needs to be integrated with budgetary, social, environmental aspects).

- (b) **Cost of investment:** includes purchase or acquisition of land, buildings, capital equipments, and other expenses incurred to build up the project's "production" structure.
- (b) **Operations and maintenance costs:** refer to the matching expenditures needed to operate the project and achieve expected benefits;
- (c) **Sunk costs:** refers to the use of facilities already in existence, and hence the costs of such facilities are sunk costs and should not be included in the project cost, provided their use in the project involves no opportunity cost.
- (d) **Contingency costs:** financial planning requires price and physical contingencies, where economic costs exclude the price contingencies.
- (e) **Working capital:** For purposes of economic analysis, only inventories that constitute real claims on the nation's resources should be included in the project economic costs. Other items of working capital reflect loan receipts and repayment flows, and are not included in the economic cost.
- (f) **Transfer payments:** Some of the items included in the financial costs of a project are not economic costs, as they do not increase or decrease the availability of real resources to the rest of the economy. These items will, however, affect the distribution of financial costs and benefits between the project entity and other entities, and among project beneficiaries. They are thus referred to as transfer payments, as they transfer command over resources from one party to another without reducing or increasing the amount of resources available as a whole.
- (g) **Depreciation:** The financial accounts of agencies implementing a project will include provision for depreciation and amortization on the basis of prevailing accounting practice. However, for project economic analysis, the stream of real investment required to realize and maintain project benefits is included in the resource flow, together with a residual value for these assets at the time they are released from project use at the end of the projects life.
- (h) **Depletion premium:** Many projects involve the exploitation of a nonrenewable natural resource, such as oil, natural gas, or mineral deposits. The economic cost of using these natural resources must be included in the economic analysis.
- (i) **External costs:** In many projects, effects will go beyond the financial analysis from the point of view of the implementing agency. These external effects may include significant costs that must be accounted for in an economic analysis from the national perspective. For example, increased air and water pollution from an industrial plant may be measured and its effects on surrounding entities estimated.

III- Financial Analysis of Projects: Key Concepts and Tools

The financial analysis of a project helps to determine the financial sustainability of the project and its overall success. One can also describe the financial analysis of a project as a process that entails the organization of specific data requirements in certain financial statements, followed by the application of certain investment criteria to these statements to determine the financial profitability or sustainability of the project.

Financial Cash Flows. The financial cash flow statement is a profile of the project's receipts and expenditures over time. The cash flow statement is organized in two main sections. The first section generally contains the expected financial receipts generated by the project, while the second one contains the expected financial expenditures incurred to generate the receipts of the project. The project's total expenditures, also known as total outflows, are subtracted from its receipts (inflows) to provide the net cash flow from the. Such costs and benefits are essentially fall into two categories: investment expenditures and operating expenditures and benefits:

Investment Plan. The financial cash flow statement of an investment plan is based on the information developed in the technical, demand, manpower, and financing modules. The

investment plan consists of two sections: the first deals with the expenditure on new acquisitions, and the opportunity cost of existing assets, and the second section deals with the financing aspects of the proposed investment.

Operating Plan. The operating plan is developed on the basis of the data formulated and organized in the technical, demand (market), and manpower modules. It should include all cash receipts generated from the operations of the business and all operating expenditures

Cessation of Project Operations. There is a need to reflect in the cash flow statement the residual value of an asset following "cessation" of a project (normally shown as an inflow the year after cessation).

Use of Consistent Prices in a Financial Appraisal. When conducting a financial appraisal of a project, it is necessary to develop price and cost projections over the life of the project. These prices are influenced by two forms of price changes which a project appraisal must consider: changes in relative prices and changes in the price level (or inflation). The underlying factors of these two price changes are different (e.g., supply and demand forces, and monetary supply factors vis-à-vis growth of goods and services, respectively). To understand the impact of real price changes and inflation on the financial viability of a project and how they are incorporated in the analysis, there is need to highlight the definition or derivation of various price variables employed in the analysis, including:

(a) **Definition of prices and price indices**, including: (i) nominal prices (known as "current" prices); (ii) price level and index; (iii) changes in price (inflation); (iv) real prices (or "real" price, whereby the nominal price of an item is divided by the index of the price level at the same point in time); and (v) changes in real prices.

(b) **Nominal interest rate:** The most important feature for integrating expectations about the future rate of inflation or expected growth in general prices into the project evaluation is to ensure that such expectations are consistent with the projections of the nominal rate of interest. There are essentially two factors accounting for the divergence of the nominal interest rate from real interest rate: a risk factor; and an adjustment factor reflecting compensation for loss in purchasing power due to inflation.

(c) **Expected (nominal) exchange rate:** A key financial variable in any project using or producing tradable goods is the market rate of the exchange between the domestic and foreign currency. There are methods to project this exchange rate, normally done by macroeconomists, and not project economists.

IV- Valuation of Economic Costs and Benefits

Once the costs and benefits of a project have been identified and quantified, they should be valued according to common criteria. This allows them to be aggregated and compared. Decisions by producers and users of project output will be based on financial prices. However, to evaluate the consequences of their decisions for the national economy, costs and benefits need to be valued at economic prices that represent their value from the national economic perspective. Costs and benefits should be valued in constant prices that are expressed at price levels prevailing in the year in which the project is appraised. Any expected change in the general price level can be ignored. However, if it is expected that there will be significant changes in relative prices over the life of the project, for example that the output of a food production project will decline in value relative to prices in general, then this relative price change must be incorporated in the valuation of the cost or benefit item.

Role of World Prices: One approach to estimating the value of outputs and inputs from the national point of view uses world market prices. The extra outputs and demand for inputs created by a project will have a direct or indirect effect on international trade. World market prices are also subject to national and international policy effects and, in some cases, to monopolized market structures. However, trade represents an alternative to domestic production for most goods and services. Hence, world prices can be used to measure the economic value of project inputs and outputs from the national perspective. The table below summarizes the basis for valuing main project outputs and inputs.

Table: Valuation of Main Project Outputs and Inputs

	Category	Project Impact	Basis of Economic Price	Basis of Valuation
Output	Tradable	Incremental	Demand price	WMP (=FOB)
		Non-incremental	Supply price	WMP (=CIF)
	Non-tradable	Incremental	Demand price	DMP + CT
		Non-incremental	Supply price	DMP - PT - OS
Input	Tradable	Incremental	Supply price	WMP (=CIF)
		Non-incremental	Demand price	WMP (=FOB)
	Non-tradable	Incremental	Supply price	DMP - PT - OS
		Non-incremental	Demand price	DMP + CT

CIF - Cost insurance freight OS - Operating surplus
 CT - Net consumption tax PT - Net production tax
 DMP - Domestic market price WMP - World market price
 FOB - Free on board

V- Project Decision and Evaluation Criteria

The preceding sections outlined the broad principles for identification, quantification, and valuation of project costs and benefits. The resulting streams of costs and benefits are used to make project choices. For comparing such streams of costs and benefits, they must be expressed in common terms of "present value" with respect to the "agreed rate of time value of money" as explained below.

Time Dimension of a Project: Importance of Compounding and Discounting: The time dimension of a project's both cash outflow and flow of economic benefits can be captured by expressing the values in terms of present values. When bringing future values back to the present for comparison purposes, it is necessary to discount them. Discounting is just the inverse of compounding

Choice of a Discount Rate: The discount rate is a key variable in applying investment criteria for project selection. Its correct choice is critical given the fact that a small variation in its value may significantly alter the results of the analysis and affect the final choice of a project. The rate of discount, in simple terms, is the cost of funds that are invested in the project. When economic analysis is applied, the relevant cost of funds is the social discount rate or the economic opportunity cost of capital to the country. There are different approaches for

estimating a discount rate for economic analysis. One guide for estimating the social discount rate is the weighted average of the costs of funds from the three sources: rate of return on postponed investments, the rate of interest on domestic savings, and the marginal cost of additional foreign capital inflows. When a country faces a budget constraint, it is common practice to use a higher discount rate to determine project viability decisions. These budgetary situations highlight the urgency for looking for viable projects with higher rates of return. Equally, a Government budget surplus, and/or readily available foreign financing, is not an excuse to accept projects with lower rates of return (or lower discount rates). Efforts should be made to design and select projects with high rates of return and favorable social impacts on the country.

There are several criteria to be used for assessing financial and economic viability of and choosing from among project options, including:

(a) **Benefit-Cost Ratio:** The benefit-cost ratio, known also as the profitability index, compares the present value of the cost streams with the present value of the benefit streams, each discounted at the same rate. The comparison is made by forming the ratio of the present value of benefits to the present value of costs.

Formula: $\text{Ratio} = \text{Stream of Discounted Benefits} / \text{Stream of Discounted Costs}$

(b) **Net Present Value:** The net present value (NPV) also compares the present value of the cost streams with the present value of the benefit streams. However, it does so not as a ratio but by taking the cost stream away from the benefit stream to obtain the net benefit stream, which can then be discounted (where B - benefits; C - costs; i - discount rate).

Formula:
$$\text{NPV} = \sum_{t=1}^n \frac{Bt}{(1+i)^t} - \sum_{t=1}^n \frac{Ct}{(1+i)^t}$$

If this sum is equal to zero, then investors can expect to recover their incremental investment and to earn a rate of return on their capital equal to the private discount rate used to compute the present values.

(c) **Internal Rate of Return:** The third criterion for summarizing the benefit and cost effects of a project alternative is the *internal rate of return (IRR)*. The IRR is calculated using the net benefit stream obtained by subtracting year by year all costs from all benefits. The IRR is the rate of discount for which the present value of the net benefit stream becomes zero.

Formula:
$$0 = \text{IRR} = \sum_{t=1}^n \frac{Bt}{(1+i)^t} - \sum_{t=1}^n \frac{Ct}{(1+i)^t}$$

Accordingly, investors recover their invested capital and earn a rate of return equal to the discount rate, which is the IRR

In addition, there are other less rigorous criteria which can be used to assess project viability, at least at an initial phase, to be complemented by more rigorous methods. However, caution needs to be exercised in using these alternative measures to avoid misleading conclusions.

Pay-out or pay-back period: It measures the number of years it will take for the undiscounted net benefits (positive net cash flows) to repay the investment. It places a premium on projects which have a quick pay-back period. But, it can give misleading results for cases of investments with a long life as it ignores the time value of money.

Debt service ratio: The debt service ratio is a key factor in determining the ability of a project to pay its operating expenses and to meet its debt servicing obligations.

Cost-effectiveness Analysis: This is an appraisal technique and criterion often used for social projects and programs, where it is difficult to quantify benefits in monetary terms, or when the benefits of alternative investments are similar. The present values of costs have to be computed.

VI- Financial Sustainability and Fiscal Impact

There are three aspects of financial sustainability:

- the availability of adequate funds to finance project expenditures, especially funds drawn from the government budget,
- the recovery of some of the project costs from the project beneficiaries, and
- financial incentives necessary to ensure participation in the project.

Project Funding and Fiscal Impact: A financial plan at constant financial prices is necessary to ensure that there will be adequate funds to finance project expenditures. This applies to the implementation period to ensure that capital funds are available to cover investment and working capital requirements, and to the operating period to ensure sufficient funds to cover operating expenditures. Where the project will generate revenue, this revenue will be the main source of funds during the operating period.

For indirectly productive projects that do not generate sufficient funds to cover operating expenditures, the full fiscal impact of the project for each year of its life should be calculated. The financial requirement becomes a fiscal requirement, and steps should be taken to ensure that the government commits adequate funds for operational purposes. Directly productive projects will also impact on the government budget, through tax revenues and concessions, and the net budget effect also can be calculated. The fiscal impact calculations should be linked to policy discussions over the extent and scale of user charges, operators' fees, and tax revenues.

VII- Environmental Assessments

The net present value (NPV) of a project is an appropriate criterion to compare environmental impacts of the without and with project cases. However, with the discount rates as high as 10 to 12 percent, many long-term environmental impacts tend to become insignificant. Where environmental impacts may extend beyond the life of other project effects, the environmental impact analysis can be combined with a sensitivity analysis for the discount rate, based on a lower rate. If, from the society's point of view, individuals over-consume environmental resources in the present, the discount rate based on society's time preference would be lower than market-based discount rates. In such circumstances, NPVs for without and with environmental impact values can be examined at alternative discount rates.

VIII- Sensitivity and Risk Analysis

Sensitivity analysis is undertaken to help identify the key variables that can influence the project cost and benefit streams. It involves recalculating the project results for different values of major variables where they are varied one at a time. Combinations of changes in values can also be investigated. Sensitivity analysis involves four steps:

- Selecting those variables to which the project decision may be sensitive;
- Determining the extent to which the value of such variables may differ from the base case;
- Calculating the effect of different values by recalculating the project NPV and EIRR; and
- Interpreting the results and designing mitigating actions.

Project statements are made up from underlying project data and assumptions. For example, vehicle operating cost savings are made up from traffic projections for different proportions of vehicle type, their division into without project and generated traffic, data on road quality and maintenance operations, and data on the vehicles and their operating costs. Sensitivity analysis of the project benefits for a road improvement project should be based on changes in such underlying variables rather than the aggregate benefit measure. Focusing on underlying rather than aggregate variables facilitates the design of actions to mitigate uncertainty.

The following procedure could be followed in undertaking the sensitivity test.

- Variables to which the project is likely to be sensitive and for which there is some uncertainty, should be listed. Alternative values should be assumed, based on previous project data where available. The change in the value of the variable should be calculated and expressed as a percentage of the original value. The extent of change should be stated for those variables such as timing of activities where a percentage change is not meaningful.
- The project NPV and EIRR should be recalculated for stated changes in variables one at a time. Unless a different country estimate is available, the NPV should be recalculated using an economic discount rate of 12 percent, which is widely used by IFIs operating in Azerbaijan.

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Publications and Documents Consulted for Preparation of PIPP Manual

The following list of publications and documents intends to serve two purposes: First, it shows to the reader the materials which have been consulted by the USAID PIP Project in developing the PIPP Manual for Azerbaijan. Second, it provides the reader with information on reliable sources where h/she could go for further procedural, institutional, and technical details on any subject of this Manual. During the review and discussion of the draft Manual, this bibliography will be extended and will also be made available on a CD-ROM.

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**PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR MANAGEMENT
(ROUNDS III & IV)**

**PUBLIC INVESTMENT ANALYSIS AND
MANAGEMENT**

NOVEMBER 14-15, 2006 / DECEMBER 4-5, 2006

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**PUBLIC INVESTMENT POLICY PROJECT
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The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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List of Participants

No.	Name	Position/Dept.	Ministry/Agency	Contacts	Day 1	Day 2
1	Mazahir Agazade	Head of Dept. of Financing of National Economy	MOF	493 0029		
2	Vahid Huseynov	Head Advisor	COM	492 5645		
3	Fuad Ibrahimov	Dty Head of Dept., SPSEDR	MOED	492 1819 211 0087		
4	Sabuhi Aslanov	SPPRSD	MOED	598 0047 ext. 127		
5	Mammad Asadov	Head of Science, Project, Construction and International Relations Dept.	CIWE	493 8011		
6	Teymur Osmanov	Dty Head of Science, Project, Construction and International Relations Dept.	CIWE	493 8011		
7	Ramiz Vekilov	Head of Joint Management of Melioration and Irrigation Construction	CIWE	438 4421		
8	Khalida Masimova	Head of Industry Dept.	MOIE	431 0589		
9	Rahman Hajiyev	Head of Investment Program and Projects Preparation Dept.	MOA	493 5874		
10	Farhad Gambarov	Dept. Dty Head, Sector Head	MOA	493 1206		
11	Imran Hajiyev	Sector Head	MOA	498 2339		
12	Novruz Mammadov	Head of State Enterprises Activity Coordination Dept.	MOCIT	493 4342		
13	Nuru Jahangirov	Senior Advisor of Finance, Accounting and Economic Analysis Dept.	MOCIT	598 5135		
14	Faig Jafarov	Head of Finance and Economic Development Dept., AZTELEKOM Production Unit (Company)	MOCIT	598 3790		
15	Ruslan Abdulalimov	Head of Investment and Technical Programs Dept.	MOCT	598 0015 332 9359		
16	Khuraman Ibrahimova	Dty Head of Dept. of Taxation Policy and Revenues	MOF	493 4041 213 9817		
17	Matanat Rasulova	Head of Scientific Researches Dept.	CER, MOED	430 0170		
18	Yashar Mammadov	Leading Specialist	CER, MOED	430 0170		
19	Bagish Ahmadov	Leading Specialist	CER, MOED	430 0170		
20	Elvin Efendi	Leading Specialist	CER, MOED	430 0170		
21	Shahin Sadigov	PIU	MOENR	667 0836		
22	Dilara Ibrahimova	Acting Head of Economy Dept.	MOCT	493 5040		
23	Orkhan Kerimov	Dty Head of Economic Dept.	MOE	496 9511		
24	Zamina Hasanova	Senior Advisor of Finance and Economic Dept.	MOH	493 7062		
25	Shahla Nasirova	Senior Advisor of Finance and Economic Dept.	MOH	493 7656		
Total					22	24

Public Investment Policy Project
Workshop for Management Group (Round IV)
December 4-5, 2006 Nesimi Room, Park Inn Hotel

List of Participants

No.	Name	Position/Dept.	Ministry/Agency	Contacts	Day 1	Day 2
1	Mirgasim Abasov	Head of Investment Policy Sector, Finance and Credit Dept.	MOT	433 9950 433 9917		
2	Javid Mammadov	Dty Head of Dept. of Financing of Social Sectors	MOF	5963612		
3	Zafar Rzayev	Head of Rayon Budget Formulation and Implementation Analysis, Budget Dept.	MOF	4938408		
4	Gulshan Hajiyeva	Senior Advisor, Dept. of Finance and Accounting	MOENR	4387075		
5	Mahabbat Mammadov	Head of the Dept. of Monitoring for Implementation of State and International Programs	MOIE	2128211 4319437		
6	Ramiz Rzayev	Head of Investment and Reconstruction of Industrial Projects Dept.	MOIE			
7	Saleh Binnatov	Deputy Head of Health Units' Development Planning Sector	MOH	5815569 4935944		
8	Kazim Kazimov	Head of Health Units' Development Planning Sector	MOH	598 5010		
9	Orkhan Kerimov	Deputy Head of Economic Dept.	MOE	496 9511		
10	Elvin Rahimov	Head of PIU for Education Sector Development Projects	MOE			
11	Latif Novruzov	Senior Engineer, AZDOVLETSUTESLAYIHE Institute	CIWE	4388385 050- 4950039		
12	Khosrov Imamaliyev	Senior Engineer, Joint Management of Irrigation and Melioration Construction Projects	CIWE	5511144 4386568		
13	Nizami Javadov	Head of Marketing and PR Dept.	CER	4301717		
14	Natig Pashayev	Head of PIP Division, DEPF	MOED	369 4644		
15	Zaur Valehov	Senior Engineer, Construction Agency	MOCT	6146903 4411326		
16	Hikmet Kerimov	Sector Head, Dept. of Investment, Program and Project Preparation	MOA	5983302 3198252		
17	Bagish Ahmadov	Leading Specialist	CER			
18	Shahin Sadigov	PIU	MOENR	4926023 6670836		
19	Khalil Ramazanov	Deputy Head of Woods Development Dept.	MOENR			
20	Yashar Mammadov	Leading Specialist	CER	3406520		
Total					15	16



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THE PUBLIC INVESTMENT POLICY PROJECT

TRAINING WORKSHOP FOR MANAGEMENT

**FORMULATION OF THE PUBLIC
INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**



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**FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**

Introduction

- How do you define “public investment”?
- Is investment more important than consumption or not? Why?
- Accordingly, should GOAZ use public investment as a policy tool?
- For answering the above questions, use as examples an energy and an education project.



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FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A PROJECTS PLANNING FRAMEWORK

Definition of Public Investment

- Investment = Final goods & services produced but not consumed in a given period and used in increasing the existing production capacity.
- Public investment = investment undertaken by the public sector agencies.
- Public sector = State agencies + LAs + Municipalities + SOEs.

3



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FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A PROJECTS PLANNING FRAMEWORK

Importance of Public Investment

- As part of total effective demand, stimulates production and affects economic stability.
- Increases the production capacity (growth).
- Improves technology, efficiency, and productivity
- Affects the future level, composition, and distribution of public and private consumption.
- Affects the level and structure of private investment.

4



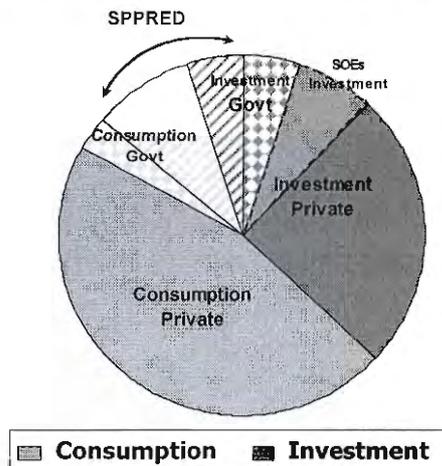
**FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**

Public Investment Policy

- Public investment will have all effects noted in the last slide whether we like them or not.
- Hence, we better try to program them rather than allow ad hoc decisions of the public agencies randomly shape them up.
- Also, the success of most other socio-economic policies of GOAZ depends on the level, composition, and distribution of public investments; hence, on the success of PIP.



AZERBAIJAN TOTAL RESOURCE USE IN 2004





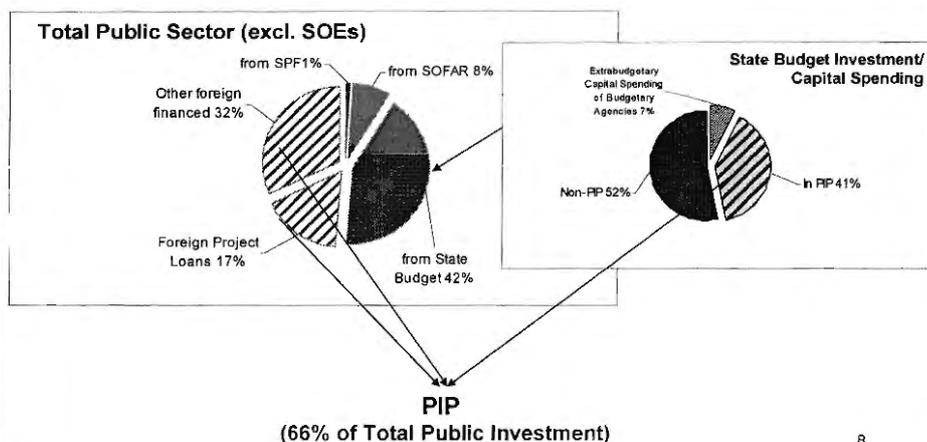
**FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A
PROJECTS PLANNING FRAMEWORK**

Current Practice in Azerbaijan: Questions

- Do you think GOAZ has an effective Public Investment Policy or not? Why?
- Where and how is it formulated?
- How comprehensive do you think it is?
- Do LMs/Agencies get (need) effective guidance from GOAZ's PIP in project development and selection?



PUBLIC SECTOR INVESTMENT 2005 (PLANNED)





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FORMULATION OF PUBLIC INVESTMENT PROGRAM AS A PROJECTS PLANNING FRAMEWORK

Current Practice in Azerbaijan: The Reality

- Total Public Sector investment is determined in a highly fragmented manner.
- There is not a comprehensive public investment policy formulation.
- The PIP is only a collection of some public investment projects selected on ad hoc basis.
- The present status of PIP deprives GOAZ of the opportunity to accelerate the social and economic development of the country.



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**THE PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL STAFF**

**SECTOR STRATEGIC
DEVELOPMENT PLANNING**
As a Framework for Project Development



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Introductory Questions

- **What is the place and role of SSDP in the planning process of Azerbaijan?**
- **Briefly describe (in bullet points) the current planning process in Azerbaijan.**
- **Please identify the strengths, if any, and weaknesses of the current planning practices in Azerbaijan.**
- **The two case projects noted at the beginning of this course should be used as references for discussing the above questions.**



SECTOR STRATEGIC DEVELOPMENT PLANNING

As a Framework for Project Development

Development Planning (existing procedures)

Macroeconomic Planning:

- Macroeconomic objectives and strategies are not explicitly considered, within a consistency framework, for SPPRSD and SPSEDR;
- Sector inputs are just inserted in SPPRSD/SPSEDR w/o consistency checks



Sector Planning:

- LM prepares its SSDP on basis of project submissions; sent it for approval to the COM, which gets views of other agencies, and then approves.
- No direct links with macro planning and budgetary process



Project Planning:

- No concerns for macroeconomic constraints and impacts
- Lack of benefit-cost analysis and resource constraint considerations (except externally-funded projects)



SECTOR STRATEGIC DEVELOPMENT PLANNING

As a Framework for Project Development

Major Current Weaknesses

- No unified **Guidelines** exist for preparation of SSDPs
- SSDPs are **not based on or linked** to a national development framework
- SSDPs are not subject to **strategic constraints** or reconciliation through an integrated coordination process
- The SSDP – **budget relationship** is non-existent
- Limited, if any, **participation of stakeholders**
- Almost no **monitoring and evaluation**



SECTOR STRATEGIC DEVELOPMENT PLANNING

Coordinated Development Planning (proposed guidelines)

Macro Planning:

- National and sector development goals and strategies formulated
- Sector resource limitations established

Sector Planning:

- Sector strategic plans for 10 years developed per National goals
- Medium-term (4 yrs) sector programs aligned with MTEF
- Coordination, information-sharing and updating

Programs/ Project Planning:

- Investment proposals consistent with macro-planning and sector development priorities
- Investment programs have clearly defined goals and objectives
- Projects are appraised and prioritized by per the techniques of benefit-cost analysis and prioritized



SECTOR STRATEGIC DEVELOPMENT PLANNING

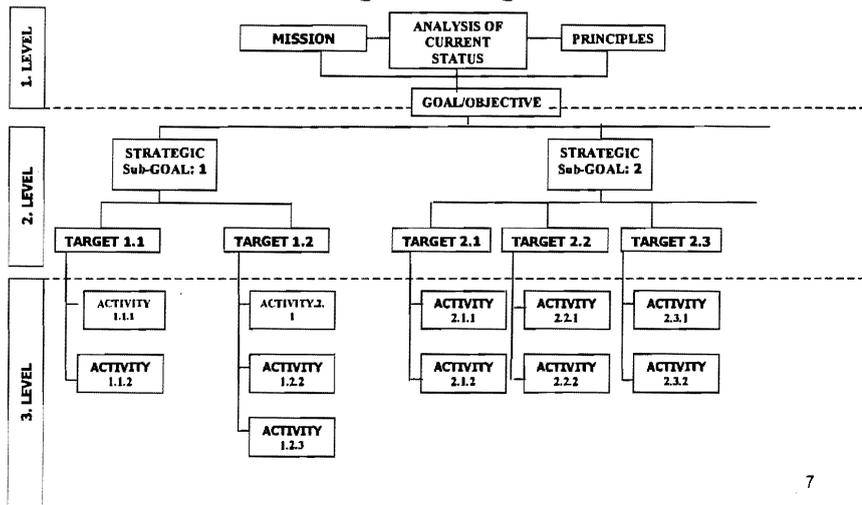
As a Framework for Project Development

Conditions for Successful Sector Development Planning

- SSDPs should formulate sector development objectives within the established National and Sectoral Development Framework.
- SSDPs need to be dynamic and adaptable to GOAZ's mid-term development priorities and resource availabilities.
- PIP should stem from SSDPs, with clear delineation of capital and recurrent expenditures
- Prioritize and sequence all projects
- Consult all stakeholders and counterparts
- Establish performance indicators and benchmarks for Monitoring and Evaluation



Sector Strategic Planning Structure



SECTOR STRATEGIC DEVELOPMENT PLANNING
As a Framework for Project Development

Sector Development Plans – Recommendations

- Implement a more synchronized and integrated approach between planning, programming and budgeting through a Joint Call Circular.
- Have sector “Goals – Targets – Activities – Projects” linked to each other within a result-oriented process that will gradually lead to performance program budgeting.
- The President/COM should provide, through HPPC, MOED and MOF, a definite guidance and coordination to reconcile top-down planning (MTEF, MTEF, SPPRS) discipline with bottom-up (projects) programming through SSDPs.
- Accelerate a program of Monitoring and Evaluation through a well-defined results measurement framework.



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**PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR TECHNICAL
STAFF**

**INTEGRATED PROJECT ANALYSIS IN THE
PROJECT LIFE-CYCLE:**

**Linkages with SSDP, SPPRSD, SPSEDR,
Budget, and PIP**



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THE PROJECTS PLANNING PHASE

INTRODUCTORY QUESTIONS

- **What are the goals and functions of the projects planning at**
 - the sector level, and
 - the national (macro) level?
- **What should be the relationship among a sector's SDP and its submissions to the mid-term State Budget and PIP in terms of the sector's investment projects?**
- **Similarly, what should be the relationship between MTEF, SSDPs, SPPRSD, and SPSEDR, on the one side, and the MTEF and the mid-term Consolidated/State Budget, on the other, in terms of public investment projects?**
- **Please discuss the above w.r.t. our two case projects.**



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THE PROJECTS PLANNING PHASE

Project Goals and Functions

- The goals and functions of (e.g. rationale for) any investment project should be to meet the demand for its contribution to the success of the SSDP.
- This also implies that the proposed project also serves the objectives and strategies of the national and sectoral development framework.
- “Demand for a project” will, however, be meaningful and effective only if it is supported by necessary funding and not hampered by other constraints.

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THE PROJECTS PLANNING PHASE

Inter-Linkages between SSDP and Budget/PIP Through their Projects Content

- Social and economic developments envisaged by an SSDP could be realized only if the supporting investment projects are included in the PIP/Budget.
- Similarly, those projects included in the PIP/Budget w/o proper appraisal of them vis-à-vis their SSDPs are likely to lead to inefficient resource uses.
- So, isn't it obvious that the only sensible thing to do is to align each SSDP's next four years with its sector's submissions for the mid-term Budget and PIP?

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THE PROJECTS PLANNING PHASE

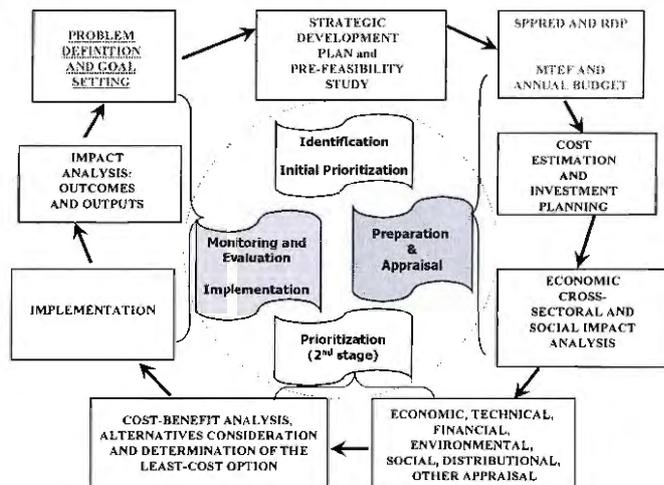
Inter-Linkages between SPPRSD/SPSEDR and SSDP/Budget/PIP

Through their Projects Content

- What is said in last two slides also applies to the relationship between SPPRSD/SPSEDR and SSDP/Budget/PIP because only in that case the poverty reduction and regional development objectives of GOAZ will be meaningful and realistic.
- In other words, all SPPRSD/SPSEDR activities should be supported by programs/projects which are also in the SSDPs/Budget/PIP, but no more and no less.
- Again, it is obvious that SSDPs should serve as the source of LMs' submissions for all other plan and budget documents, provided that SSDPs are drawn in line with guidance and instructions of the JCC.
- **Conclusion:** Planning, investment programming and capital budgeting form a circular process enveloping the project life-cycle as shown in the next slide.



PUBLIC INVESTMENT PROJECT LIFECYCLE





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TRAINING WORKSHOP FOR MANAGEMENT**

Preparation and Approval of PIP



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THE PREPARATION AND APPROVAL OF PIP

INTRODUCTORY QUESTIONS

- What should be the characteristic features of an effective and sound PIP in light of the previous slides and w.r.t.:
 - Its coverage of the public sector agencies;
 - Its coverage of the type of (capital) expenditures; and
 - The State Budget and the budgets of other public agencies.
- Should the PIP be a policy planning or capital budgeting instrument, or both?



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THE PREPARATION AND APPROVAL OF PIP

Characteristic Features of the PIP

- PIP should be universal-all inclusive in terms of coverage of:
 - Public sector agencies, and
 - All capital spending, whether in the form of a project or not.
- The PIP is not a “capital budget” and cannot serve as a source of spending authorization. It is instead a policy planning document, evaluating and guiding GOAZ’s use of public capital in most productive economic and social projects
- The PIP includes only those project and capital spending proposals that are found, on policy and cost-benefit criteria, to be in line with the national and sectoral development objectives and strategies.
- Once included in the PIP, the project and capital spending proposals can also be included in their sponsoring agencies’ budget proposals according to their own budget classification and presentation bases.

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THE PREPARATION AND APPROVAL OF PIP

The PIP as an Investment Policy Document: The Essential Questions

- Could anyone think of any good reason why GOAZ shouldn’t have an investment policy?
- Would everyone agree that there is need for it, and it should be MOED’s responsibility as its Charter says?
- What should be the focus of an analysis of GOAZ’s Public Investment Policy?

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THE PREPARATION AND APPROVAL OF PIP

The Focus of PIP as Investment Policy Document

- Analyze the recent and planned public investment policies and performances w.r.t.:
 - Sustained social and economic development with stabilization;
 - Changing the structure of asset ownership (i.e., privatization);
 - Desired transformation of production structure (e.g. non-oil growth);
 - Facilitating and guiding private sector investments.
- Analyze them to also see if they included the necessary mechanisms to help ensure:
 - Sound prioritization of investment programs and projects; and
 - Technical efficiency and sustainability of capital expenditures.

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THE PREPARATION AND APPROVAL OF PIP

Importance of the Joint/PIP Call Circular

- As a tool for effective integration of all plan and budget documents through:
 - Basing all instructions and requirements on the same MTEF & MTFF and sectoral priorities;
 - Issuing appropriately established sector spending ceilings;
 - Ensuring consistency among information requirements for SPPRS, PIP, and Budget by putting them in one document, and similarly with LMs/Agencies' responses.
- The JCC will also help LMs and MOED to update their SSDPs and SPPRS/SPSEDR, respectively.
- And, it is obvious that the sensible thing to do for each LM is to align its SSDP's next four years with its submissions for the mid-term Budget and PIP?

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THE PREPARATION AND APPROVAL OF PIP

Composition of the Joint Call Circular (JCC)

- Overview of the national and sectoral development objectives, strategies, priorities, and expected outcomes (based on MTEF);
- Guidance, sectoral ceilings, instructions, and information requests for the preparation of the next SPPRSD or its Annual Performance Review (or the Joint/SPPRSD CC);
- The Joint/PIP CC; and
- The Joint/Budget CC.

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THE PREPARATION AND APPROVAL OF PIP

Composition of the Joint/PIP CC

- Sector related information that will help MOED with formulation of the PIPP for the next four years;
- Information on each project that LMs propose for the next rolling PIP;
- Other capital spending proposals, which are not in the form of "public investment project".

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THE PREPARATION AND APPROVAL OF PIP

How Difficult for a LM to respond to the Joint/PIP CC?

- Not at all, particularly if there is a well-prepared SSDP with a well documented projects pipeline.
- Also, the “rolling” nature of the Budget and PIP and presence of many “on-going projects” make it easier.
- MOED’s PIP experts stand ready to help LMs with necessary technical support.

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THE PREPARATION AND APPROVAL OF PIP

Review and Negotiation of PIP

- MOED’s work on PIP is led and coordinated by the PIP Task Force comprising a Deputy Minister (economy) and all department and division heads with responsibility for PIP work.
- Each LM’s PIP submission will be reviewed and assessed by the relevant sector division of MOED;
- In this work, each sector division of MOED will also obtain views of all other relevant MOED divisions;
- Based on these, the MOED sector division chief will sound out LM’s responses to MOED’s initial assessments; and
- Each MOED sector division will submit to the PIP Task Force its evaluation, based on the above, of the relevant LM submission.

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THE PREPARATION AND APPROVAL OF PIP

Review and Negotiation of PIP (cont.)

- The Macroeconomic Policy Division of MOED will aggregate LMs' submissions and present to the PIP Task Force its assessment wrt MTEF/MTFF and inter-sector consistency;
- The PIP Task Force will then review each LM's PIP submission in light of the assessments of the MOED sector and Macroeconomic Policy Divisions and establish MOED's position;
- MOED Director in charge of PIP work will negotiate with LM;
- Any remaining differences will be taken up by the two Ministers;
- In the meantime, the Macroeconomic Policy Division will be drafting the policy section of the PIP in the light of MTEF, MTFF, and the above reviews of LMs' submissions by MOED divisions.

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THE PREPARATION AND APPROVAL OF PIP

Approval of the PIP

- MOED will send the final draft PIP to MOF for its concurrence;
- Since MOF was involved in the preparation of Joint/PIP CC and negotiations with LMs, agreement will be reached easily;
- MOED will then submit the draft PIP to HPPC for review and clearance before submission to COM for approval.
- HPPC will also act as the final referee for any remaining differences between any LM and MOED.
- Once approved by COM, the PIP will be circulated to all agencies for incorporation in their capital budgets.

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**PUBLIC INVESTMENT POLICY PROJECT
TRAINING WORKSHOP FOR MANAGEMENT
DETERMINING THE PROJECTS
CONTENT OF PIP**



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DETERMINING THE PROJECTS CONTENT OF PIP

INTRODUCTORY QUESTIONS TO LMS/AGENCIES

- How do you prepare your PIP submissions?
- Did you have difficulty in responding to the Joint/PIP CC for 2007-10?
- Do you have a SSDP?
- Do you have a projects pipeline supporting SSDP and multi-year PIP and State Budget?
- What are the “preparedness profile” of your projects?
- Do you have a separate “project development cycle” independent of the PIP process?



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DETERMINING THE PROJECTS CONTENT OF PIP

Processing a Project into the PIP

- Identification of the project
- Preparing the Project Concept Paper
- Preparing the Pre-Feasibility Report
- The full Feasibility Report preparation
- Project Appraisal Report
- Inclusion into the PIP
- Loan/Credit Agreements
- Finalizing the Implementation Plan

3



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DETERMINING THE PROJECTS CONTENT OF PIP

Project Identification

- This is what makes bottom-up planning meaningful.
- Participatory process is important. Does it work here?
- Who could and should identify projects?
- Who have identified our two case projects?
- How will it be decided if it is a good project idea, and what is the next?

4



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DETERMINING THE PROJECTS CONTENT OF PIP

The Project Concept Paper (PCP)

- Draft a "Project Idea" proposal (maximum one page) for each of our two sample projects (Azerenergy and education).
- Who, and how, will decide whether this proposal is to be taken one step up into the PCP stage?
- Prepare and discuss the PCP for each of our two case projects, based on the template provided in the draft PIPP Manual (Annex 10).

5



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DETERMINING THE PROJECTS CONTENT OF PIP

Processing of PCP

- The PCP will be prepared by the LM/Agency's dept/division in charge of project development work;
- It will be reviewed & approved by the LM/Agency management on the basis of its SSDP, SPPRSD, SPSEDR, and the most recent Joint/PIP CC, and will be sent to MOED for next stage.
- The MOED PIP Division will obtain views of all relevant divisions on the proposed project and give its recommendations to the MOED Investment Review Committee (IRC).
- A project whose PCP is approved by IRC qualifies for inclusion in the outer years of the PIP.

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DETERMINING THE PROJECTS CONTENT OF PIP

The Pre-Feasibility Report (PFR)

- Who will decide, and how, if the PCP is to be taken up to the Pre-Feasibility stage?
- Who should, and how, prepare and approve the PFR, LM/Agency or MOED?
- Draft and discuss a PFR for each of our two case projects. Use for this purpose the PFR template provided in Annex 11 of the draft PIPP Manual.

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DETERMINING THE PROJECTS CONTENT OF PIP

Processing of PFR

- No projects w/o a PFR will be included in the next FY's PIP. Discuss the reasons.
- Once a PCP is approved by IRC, MOED/EPFD will form a PFR Team under himself or one of his division chiefs and including members from MOF and the LM/agency.
- PFR will analyze and verify the project's potential contributions to national and sectoral development objectives and strategies with the help of sector and technical experts using both official and market data.
- If the MOED/IRC approves PFR, it can be included in the LM's submission for the next FY PIP.

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DETERMINING THE PROJECTS CONTENT OF PIP

The Full Project Feasibility Report (FPFR)

- If a project is below a certain size (depending on its sector), MOED/IRC may exempt it from the FPFR requirement and can move it to the Appraisal stage.
- Preparation of a FPFR requires substantial work and expertise beyond the capacity of a LM/Agency, hence contracting it out.
- Preparation of a FPFR may take several months, even years, depending on the size and nature of the project.
- This last point, particularly, makes a PAR indispensable.

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DETERMINING THE PROJECTS CONTENT OF PIP

The Project Appraisal Report (PAR)

- Every project to be included in the next FY's PIP should be duly supported with a PAR prepared by MOED.
- PAR will:
 - confirm the evaluations of PFR or FPFR;
 - Assess the project's suitability to medium- to long-term development objectives and strategies;
 - Identify the critical risks to the project and its management options;
 - Serve as a guide for project implementation and monitoring.

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DETERMINING THE PROJECTS CONTENT OF PIP

Selection of Projects for the PIP

- We have so far talked about the process and procedures for evaluating LMs' PIP submissions and for developing the project proposals into the PIP.
- We have referred only to the "national and sectoral development objectives and strategies" as the main criteria for the evaluation of sector PIPs and projects.
- This main set of criteria should now be specified in more definite and operational terms, which are called "prioritization and selection of investment programs and projects".