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CHORNOBYL SOCIAL IMPACT PLAN

U.S. REFERENCE MATERIALS

PREPARED FOR:
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DELIVERY ORDER NO. 4; MODIFICATION NO. 2

DECEMBER, 1996

BOOK 1 OF 2

**CHORNOBYL SOCIAL IMPACT
STUDY**

U.S. REFERENCE MATERIALS

**Chernobyl Social Impact Action Plan
Reference Documents**

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E = English; U = Ukrainian; R = Russian

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* Full copy of document can be obtained upon request

** Document to follow

E = English; U = Ukrainian; R = Russian

DRAFT: 5:25 PM November 30

Memorandum of Understanding

between the Government of Ukraine

and

the Governments of the G-7 Countries and the
Commission of the European Communities

on the Closure of the Chernobyl Nuclear Power Plant

The Government of Ukraine, hereinafter referred to as "Ukraine", and the respective Governments of the G-7 countries and the Commission of the European Communities, hereinafter referred to as "the G-7" have developed a cooperative approach on the elaboration and implementation of a Comprehensive Program to support the decision of Ukraine to close the Chernobyl Nuclear Power Plant by the year 2000 as formulated by President Kuchma in his statement of April 13, 1995, and in his letter of August 8, 1995, to G-7 Leaders. The Program will thus implement the commitments of the leaders of the G-7, made in Naples, Italy in 1994 and Halifax, Canada in 1995.

The program is guided by the following principles:

The friendly relationships among Ukraine and members of the G-7;

The critical linkages between energy sector reform and the achievement of Ukraine's economic and social reform objectives;

The complementarity between measures summarized herein to support Chernobyl's closure and the development of a long term energy sector strategy in Ukraine, taking into account sound economic, financial and environmental criteria, and leading to an efficient sustainable, market-oriented energy sector well-suited to Ukraine's needs;

The necessity of the continuous promotion of a high level of nuclear safety around the world taking into account the principles specified in the International Convention on Nuclear Safety and the recognition of the essential role played in this regard by a strong and independent national nuclear safety regulator;

...2

The need to mobilize financial resources from the international community and domestic sources to support the decision of Ukraine to close the Chernobyl Nuclear Power Plant.

The need to ensure full co operation from the Ukrainian entities associated with all elements of the comprehensive program.

The recognition of the early closure of the Chernobyl Nuclear Power Plant will have adverse economic and social implications for Ukraine while also facilitating the flow of international financial resources and improving the national standards of nuclear safety.

The recognition of the fact that the responsibility for nuclear safety lies exclusively with the operating state, including an effective regime for liability for nuclear damage corresponding to accepted international norms.

The desirability of increasing energy efficiency.

The importance of our joint commitment to take all necessary measures for the decommissioning of the Chernobyl Nuclear Power Plant in the shortest, practically achievable time.

Ukraine and the G-7 have decided upon the following Comprehensive Program of cooperation in order to support the closure of the Chernobyl Nuclear Power Plant by the year 2000:

Power Sector Restructuring

1. Ukraine and the G 7 will continue to cooperate in the development of a financially-sound electric power market with market-based pricing that will encourage energy efficiency and conservation and will work cooperatively in generating and attracting the domestic and international resources needed both for safety measures and for new capital investment in power generation, transmission and distribution.

Energy Investment Program

2. Ukraine and the G-7 will work with the international financial institutions as well as foreign and domestic investors to prepare loan-financed projects based upon least-cost planning principles for completion of Khmel'nitsky II and Rovno IV nuclear reactors, for thermal and hydro plant rehabilitation and pumped storage projects, and for energy efficiency projects in accordance with Ukraine's energy sector strategy. In order to support the closure of Chernobyl, the investment program will identify least-cost power supply investments to meet Ukraine's future national power requirements in the context of a competitive market-based power sector.

.....3

Nuclear Safety

3. Ukraine and the G-7 will work with the relevant international organizations as well as multilateral and bilateral donors on an expedited basis to prepare and implement projects for short term safety upgrades at Chernobyl III and for decommissioning of the Chernobyl Nuclear Power Plant.

4. Ukraine and the G-7 will continue to cooperate in the development of a cost effective and environmentally sound approach to the shelter for Chernobyl IV, including the definition, as soon as possible, of technical and cost options as the basis for reviewing financial requirements.

Social Impact Plan

5. Ukraine and the G-7 recognize the implications of the closure of the Chernobyl plant for the workers and their families. The European Commission and the Government of the United States will assist the Government of Ukraine develop an Action Plan for addressing the social impacts of the closure of Chernobyl.

Financial Resources

6. To provide for the implementation of the program outlined in paragraphs 1-5, Ukraine and the G-7 will cooperate in the identification of international and domestic Ukrainian funding sources and the mobilization of international finance in support of appropriate program activities.

7. Attachment 1 presents a summary of the current financial resources either available or under consideration from the G-7 and international financial institutions. Some elements are subject to the completion of project specific feasibility studies. Attachment 2 provides the list of priority projects of the Comprehensive Programme.

8. As a guiding principle, revenue generating projects would be considered for international loan financing and Ukrainian domestic resources. Non-revenue generating projects, directly related to the closure of Chernobyl, would be considered for international grant financing and, accounting for the financial and economic situation in Ukraine, Ukrainian domestic resources.

Implementation Review

9. Representatives of Ukraine, the G-7, and the international financial institutions will meet at least annually to monitor implementation of the comprehensive program for the closure of Chernobyl and consider any technical or financial issues that represent potential obstacles to realizing its objectives.

MOU ATTACHMENT 1

G-7/UKRAINE COMPREHENSIVE PROGRAM
FOR THE CLOSURE OF CHERNOBYL

SUMMARY OF CURRENT FINANCIAL RESOURCES
FROM THE INTERNATIONAL COMMUNITY

(US \$ MILLIONS)

	GRANTS ¹	IFI AND EURATOM LOAN FINANCING ²	TOTALS ³
POWER SECTOR RESTRUCTURING	43		43
ENERGY INVESTMENT PROGRAM	102	1,809	1,911
NUCLEAR SAFETY AND DECOMMISSIONING	349		349
SOCIAL IMPACT PLANNING	4		4
TOTALS	498	1,809	2,307

1. Committed.
2. Some loans are pending subject to approval based on necessary feasibility studies.
3. Ukrainian in-kind and financial contributions will be defined as projects are developed.

ATTACHMENT 2

COMPREHENSIVE PROGRAM OF THE G-7 AND UKRAINE TO SUPPORT THE
CLOSURE OF THE CHERNOBYL NUCLEAR POWER PLANT

PRIORITY PROJECTS

I. LIST OF NON-REVENUE GENERATING PROJECTS

PROJECT MOU PARAGRAPH	CORRESPONDING PARAGRAPH
1. * DECOMMISSIONING OF THE CNPP	PARAGRAPH 3
1.1 STAGE 0 (5 YEARS) PREPARATORY WORK PRIOR TO DECOMMISSIONING OF CNPP	
1.2 STAGE 1. (10 YEARS AFTER COMPLETION OF STAGE 0) FUEL AND WASTE MANAGEMENT	
1.3 STAGE 2 (9 YEARS AFTER COMPLETION OF STAGE 0) DECOMMISSIONING OF CNPP	
2. PLAN TO DEAL WITH SOCIAL IMPACT RELATED TO CLOSURE OF CNPP	PARAGRAPH 5
3. SHORT TERM NUCLEAR SAFETY IMPROVEMENTS FOR CNPP UNIT #3	PARAGRAPH 3
4. **TRANSFORMATION OF "SHELTER" INTO AN ENVIRONMENTALLY SAFE SYSTEM	PARAGRAPH 4
5. POWER SECTOR RESTRUCTURING	PARAGRAPH 1

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11. REVENUE GENERATING PROJECTS

6. COMPLETION OF ROVNO #4 AND KHMELNITSKY #2 PARAGRAPH 2

6.1 SAFETY IMPROVEMENTS AND COMPLETION OF
KHMELNITSKY #2 AND ROVNO #4

6.2 CONSTRUCTION OF HV TRANSMISSION LINES TO
KHMELNITSKY AND ROVNO UNITS

7. REHABILITATION OF THERMAL POWER PLANTS PARAGRAPH 2

8. INTRODUCTION OF PEAK CAPACITIES PARAGRAPH 2

-CONSTRUCTION OF DNIESTER PUMPED STORAGE

9. ENERGY EFFICIENCY AND DEMAND SIDE MANAGEMENT PARAGRAPH 2

PROJECTS REQUIRING CLARIFICATION BEFORE BEING INCLUDED

10. *** RELOCATION AND CONSTRUCTION OF 750KV SWITCHYARD OUTSIDE
CONTAMINATED AREA AT CHERNOBYL NPP.

* ESTIMATED COSTS WILL BE DEFINED, TAKING INTO ACCOUNT THE AEA
TECHNOLOGY STUDY

** ESTIMATED COSTS WILL BE DEFINED ACCORDING TO STUDIES OF
ALLIANCE CONSORTIUM AND THE PROTOCOL BETWEEN THE EUROPEAN
COMMISSION AND UKRAINE, SIGNED IN BRUSSELS, 11 SEPTEMBER
1995.

*** TO BE CLARIFIED BY UKRAINIAN AND G-7 EXPERTS.

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DRAFT TERMS OF REFERENCE FOR A JOINT EU-UKRAINE-US PROJECT ON
THE SOCIAL IMPACT OF CLOSING THE CHERNOBYL NUCLEAR POWER PLANT
(October 17, 1995)

A. Purpose of the Project:

To analyze the social impact of closing CNPP and assist Ukraine in preparing a plan composed of measures to alleviate the social impact of closing the plant.

B. Background:

President Kuchma has made a commitment to close the Chernobyl Nuclear Power Plant by the year 2000 and identified the need for western assistance in addressing four key issues (securing adequate replacement power, decommissioning and nuclear waste management, assistance with sarcophagus of Unit No.4 and the social impact of closure of the plant). G-7 representatives are working with Ukrainian counterparts to develop a comprehensive program concerning the closure of Chernobyl which addresses these four concerns. Elements of the comprehensive program that are being considered include a Social Cost Plan.

The EU and US have agreed to work jointly with Ukraine in a review of the social impact of closing CNPP and have budgeted funds to cover the cost of their participation. The review will include the recommendation of measures that could be taken within the context of Ukraine's overall economic restructuring program to alleviate the social impact of the plant's closure. The need for such a review was identified by a joint EU-U.S. mission to Ukraine in late 1994 based on discussions with a broad range of Ukrainian officials and representatives of CNPP and Slavutich, the new purpose-built city where most CNPP employees live with their families.

C. Objectives:

The objectives of the project are to:

- analyze the social impact of closure of CNPP with particular attention focused on the workers at the plant and inhabitants of the Slavutich region.
- develop a general strategy for addressing the social impacts identified in the analysis.
- prepare a plan of action aimed at alleviating the major social consequences of closing CNPP.
- elaborate appropriate mechanisms and structures to administer the initiatives contained in the plan of action.

D. Project Beneficiaries:

The direct project beneficiary will be the office of the Deputy Prime Minister for Social Affairs.

The indirect project beneficiaries will be the staff of the CNPP and their families, the community of Slavutich and the Chernobyl region.

E. Project Scope and Deliverables:

The project will address both the social impact on individuals and the impact on the local and regional labor markets. First, the age and qualifications structure of the workforce at the plant will be ascertained. This will highlight the possibilities for early retirement, retraining, redeployment and transfer. Second, existing labor and other social protection policies, programs and resources will be reviewed and revisions proposed as appropriate to stimulate job creation and alternative economic activity, and to address labor mobility issues.

Recommended project activities will represent a broad consensus and acceptance by the participants to the greatest extent possible. The recommendations will be based on realistic circumstances and probable future conditions in Ukraine in such form that they are clearly understandable and consistent with policies of participating parties. All project activities will be coordinated with other Ukrainian and donor sponsored studies and activities that may contribute to the success of this effort. In particular, coordination will be assured with the EU financed Ukraine Employment Services Project and USAID assistance in restructuring Ukraine social policies to make them compatible with a market economy. The Employment Services Project will aim to develop effective employment services in the Slavutich region contributing counseling and placement services for person affected by the closure of CNPP.

Consideration will be given first of all to the anticipated labor needs of decommissioning the CNPP and nuclear waste management including possible work on rehabilitating the sarcophagus. An EU TACIS study on waste treatment will identify the volume of labor required. Personnel needed for these activities may be required over a lengthy period of time after closure. Recognizing that much of the workforce at the CNPP is highly qualified, additional employment opportunities will likely exist through the recently established International Research and Technology Center (IRTC) in Slavutich which can utilize local nuclear expertise. Activities both for attracting investment and stimulating indigenous business activity will be considered. The project will stress matching skills to demand or anticipated demand. Actual and anticipated employment opportunities outside the the Chernobyl-Slavutich region will be assessed.

The significant deliverable of the project will be a set of reasoned and pragmatic recommendations for consideration by all affected parties prepared in such form that they may be broadly understood and endorsed as a plan of action. Each action and program recommended by the project team will be accompanied by a detailed description, proposed implementation plan and schedule and tentative budget. Educational and informational material will be provided to support and explain the findings and recommendations. These materials may include graphic, printed and video products suitable for media presentation designed to inform individuals and groups most directly affected by the closure of CNPP.

F. ORGANIZATION OF THE PROJECT

(1) Joint Coordinating Committee

The project will be implemented under the broad policy guidance of a Joint Coordinating Committee (JCC). The JCC will serve as the sponsor of the project. It will provide policy and input coordination, assure the timely provision of required information and review project objectives, scope, progress and deliverables. The JCC will be ultimately responsible for the plan of action. The make-up of the JCC will be as follows:

Ukraine:

- One representative of the Office of the Prime Minister who will serve as Chairperson.
- Representatives of relevant Ministries and GCU Committees,
- Representatives of such entities as:
 - Management of CNPP
 - Local governments
 - Trade unions

European Union:

- One Representative

United States:

- One Representative

Representatives of IFIs and other donor organizations may be invited to attend some or all JCC meetings and the review workshops that are mentioned below.

(2) Joint Working Group:

The project will be implemented by a Joint Working Group (JWG) made up of Ukrainian, EU and US experts who will work under the overall coordination of the Chief EU Consultant. The JWG will be made-up of experts with complementary competence and experience who will provide inputs through a range of means including workshops, one-on-one advice and study tour exposure. The length of service of experts will be based on project needs, the availability of individuals and the resources of contributing members. Some Ukrainian experts will be funded by the EU and US.

The JWG, which will work primarily in Ukraine, will be responsible for planning and carrying-out all project activities. This includes drafting a project workplan and submitting it to the JCC, preparing and submitting bi-weekly project status reports to the JCC, arranging JCC meetings as required, organizing and conducting a series of workshops, preparing materials for JCC meetings and the workshops and arranging Study Tours to the EU and US.

The final workplan will identify all anticipated study elements and categories of recommendations. In preparing the workplan and implementing the project, the Chief Consultants will attempt to make full use of Ukrainian expertise and coordinate with other relevant Ukrainian, EU, US and other donor projects and activities. They will be particularly careful to work in close cooperation with the World Bank and other international financial institutions and to seek their views and advice during the course of the study and the formulation of recommendations.

It is anticipated that it may be necessary occasionally to establish ad hoc sub-committees or special short run inquiries. When necessary, special consultants and/or specialists may be required and authorized for limited periods by the respective funding authority.

G. Joint Inputs:

The Ukraine, EU and US contributions to the project will be as follows:

1. Ukrainian:

- JCC Chairperson.
- expert members of the JWG as desired.
- GOU and local officials, CNPP management and employees and other Ukrainian persons as required to serve as members of

the JCC and contribute to the project.

- Ukrainian economic and social information as required by the Joint Working Group.
- Meeting rooms and facilities for in-country Joint Steering Committee and Joint Working Group meetings.

2. European Union:

- A representative on the JCC.
- A Chief Consultant/Project Coordinator for the JWG.
- Four European Union Experts.
- Four Ukrainian experts.
- Host and cover the cost of Ukrainian participation in a European study tour.
- Contribute printed and video information on relevant EU experience.
- A portion of the cost of translators for meetings and the translation and reproduction of documents.

2. United States

- A representative on the JCC
- A Chief Consultant/Deputy Project Coordinator for the JWG,
- Other United States Experts
- Ukrainian experts
- Host and cover the cost of Ukrainian participation in a US study tour.
- Contribute printed and video information on relevant U.S. experience.
- A portion of the cost of translators for meetings and the translation and reproduction of documents.

H. PROJECT IMPLEMENTATION:

Project implementation will begin no later than November 1, 1995 following trilateral approval of these Terms of Reference in October. Implementation will be carried out in six distinct and sometimes overlapping phases and be finished by or about April

30, 1996. The Phases are as follows:

Phase I - Project Start-Up

Joint Coordinating Committee Established.
Joint Working Group Established.

JWG Develops and Presents Project WorkPlan.

Phase II - Public Awareness Activities

Increase public awareness concerning the project and its objectives and its potential benefits to them. It also will inform interested parties in the West of the particular problems that must be addressed in the closure of the CWP.

Phase III - Information Gathering and Assessment

Develop a broad understanding of the overall Ukraine economic situation, the availability of existing governmental and private resources, the political issues involved, attitudinal factors and the applicability of related initiatives throughout Ukraine, the rest of the former Soviet Union, EU countries and the US. Includes study tours.

Phase IV - Developing Plan of Action

Development of concrete recommendations and proposals and coordination with all relevant parties

Phase V - Approval of Plan of Action

Presentation, review and approval of Recommendations and proposals.

Phase VI - Project Wrap-up

Reproduction and distribution of approved documents.

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1. PURSUANT TO A PRESIDENTIAL DECREE DATED NOVEMBER 15, 1995, THE GOU ESTABLISHED A GOVERNMENT COMMITTEE TO ADDRESS PROBLEMS ASSOCIATED WITH THE PROSPECTIVE CLOSURE OF THE CHORNOBYL NUCLEAR POWER PLANT. THE DECREE CONTAINS LITTLE INFORMATION ABOUT THE FUNCTIONS, ACTIVITIES OR AUTHORITY OF THE COMMITTEE, WHICH IS CHAIRED BY DEPUTY PRIME MINISTER FOR THE FUEL AND ENERGY COMPLEX VASYL YEVTUKHOV. ACCORDING TO THE DECREE, THE COMMITTEE WAS TASKED WITH DEVELOPING PROPOSALS FOR A "COMPLEX SOLUTION TO THE PROBLEMS OF THE CHORNOBYL NUCLEAR POWER PLANT" BY MID-JANUARY, BUT NO SUCH PROPOSAL HAS YET BEEN MADE PUBLIC.

2. GOU OFFICIALS HAVE SUGGESTED THAT THE PRECISE ROLE OF THE COMMITTEE IS STILL NOT ENTIRELY CLEAR. YEVTUKHOV HAS TO THIS POINT NOT PLAYED A MAJOR ROLE IN CHORNOBYL MATTERS. THE COMMITTEE WAS NOT/NOT ESTABLISHED SPECIFICALLY TO ADDRESS IMPLEMENTATION OF THE G-7-UKRAINE MEMORANDUM OF UNDERSTANDING ON CLOSURE OF THE CHORNOBYL NPP, BUT GOU OFFICIALS DO NOT RULE OUT SUCH A ROLE. POST WILL FORWARD ADDITIONAL INFORMATION ABOUT THE COMMITTEE AFTER FURTHER DISCUSSIONS WITH GOU OFFICIALS.

3. BEGIN EMBASSY'S INFORMAL TRANSLATION OF THE

PRESIDENTIAL DECREE:

ORDER OF THE PRESIDENT OF UKRAINE ON THE
GOVERNMENT COMMISSION FOR A "COMPLEX" (LITERALLY
TRANSLATED) RESOLUTION OF THE PROBLEMS OF THE
CHORNOBYL NUCLEAR POWER PLANT (NPP)

FOR THE PURPOSE OF THE ORGANIZATIONAL AND
FINANCIAL ASSURANCE OF THE PERFORMANCE OF TASKS RELATED
TO A COMPLEX SOLUTION OF THE PROBLEMS OF THE CHORNOBYL
NPP, COORDINATION OF EFFORTS AND ACTIVITIES OF
MINISTRIES, COMMITTEES AND THEIR ENTERPRISES,
DETERMINATION OF A SINGLE STATE POSITION ON THIS ISSUE:

1. TO ESTABLISH A GOVERNMENT COMMISSION FOR THE
COMPLEX SOLUTION OF THE PROBLEMS OF THE CHORNOBYL NPP
(HEREINAFTER THE COMMITTEE).

TO APPOINT VASYL YEVTUKHOV CHAIRMAN OF THE
COMMISSION.

TO APPROVE THE MEMBERSHIP OF THE COMMISSION.

2. TO ALLOW THE COMMISSION TO INVOLVE IN ITS
ACTIVITIES PROMINENT SCIENTISTS, RESPONSIBLE OFFICIALS
OF MINISTRIES AND OTHER CENTRAL ORGANS OF THE EXECUTIVE
BRANCH, EXPERTS ON THE NATIONAL ECONOMY.

3. ORGANIZATION AND LOGISTICAL SUPPORT SHALL BE
INSURED BY THE CABINET OF MINISTERS.

4. COMMISSION CHAIRMAN V. YEVTUKHOV SHALL DEVELOP
"A CONCEPTUAL PLAN" (ORIGINAL AMBIGUOUS—COULD BE
TRANSLATED AS "POSTURE, ATTITUDE, STATUS, REGULATIONS,
PRINCIPLES") FOR THE COMMISSION AND SUBMIT IT FOR
APPROVAL WITHIN ONE MONTH.

5. THE COMMISSION WITHIN TWO MONTHS SHALL DEVELOP
AGREED PROPOSALS FOR A COMPLEX RESOLUTION OF CHORNOBYL
NPP PROBLEMS AND SUBMIT THEM FOR CABINET OF MINISTERS
APPROVAL.

THE PRESIDENT OF UKRAINE
NOVEMBER 15, 1995

LEONID KUCHMA

END TRANSLATION OF TEXT OF DECREE.

3. THE COMMISSION IS COMPRISED OF THE FOLLOWING
MEMBERS:

VASYL I. YEVTUKHOV, VICE PRIME MINISTER FOR THE FUEL
AND ENERGY COMPLEX; CHAIRMAN OF THE COMMISSION

MIKHAYLO P. UMANETS, CHAIRMAN OF THE STATE COMMITTEE
FOR NUCLEAR POWER UTILIZATION; VICE CHAIRMAN OF THE
COMMISSION (NOTE: UMANETS WAS DISMISSED FOLLOWING
FORMATION OF THE COMMISSION AND HIS STATUS AS A MEMBER
IS UNCLEAR)

VOLODYMYR V. LUKYANETS, SENIOR EXPERT, DEPARTMENT OF
FUEL AND ENERGY, CABINET OF MINISTERS; SECRETARY OF The Commission

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VIKTOR G. BARYAKHTAR, VICE-PRESIDENT OF THE NATIONAL
ACADEMY OF SCIENCES OF UKRAINE

ANATOLIY M. BELYAYEV, DEPUTY CHAIRMAN OF THE STATE
SECURITY SERVICE

OLEKSANDR P. GORBATOVSKIY,
DEPUTY CHAIRMAN OF THE STATE
COMMITTEE ON CONSTRUCTION AND ARCHITECTURE

KOSTYANTYN I. HRYSHCHENKO, DEPUTY MINISTER OF FOREIGN
AFFAIRS

MYKOLA P. DUDCHENKO, CHAIRMAN OF THE SUBCOMMISSION ON
NUCLEAR ENERGY, PARLIAMENTARY COMMISSION ON NUCLEAR
POLICY AND NUCLEAR SAFETY

YURIY I. KOSTENKO, MINISTER OF ENVIRONMENTAL PROTECTION
AND NUCLEAR SAFETY, HEAD OF THE OFFICIAL DELEGATION FOR
THE CONDUCT OF INTERNATIONAL NEGOTIATIONS ON THE ISSUE
OF THE CHORNOBYL NPP

VALERIY P. KUKHAR, CHAIRMAN OF THE PRESIDENTIAL
COMMISSION ON NUCLEAR POLICY AND ENVIRONMENTAL SAFETY

LEONID V. MININ, DEPUTY MINISTER OF ECONOMY

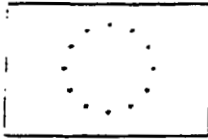
VIKTOR M. PONAMARENKO, DEPUTY MINISTER OF HEALTH

MYKOLA I. SIVULSKIY, FIRST DEPUTY MINISTER OF FINANCE

VOLODYMYR I. KHOLOSHA; ACTING MINISTER FOR PROTECTION
OF THE POPULATION FROM THE CONSEQUENCES OF THE ACCIDENT
AT CHORNOBYL NPP

OLEKSANDR M. SHEBERSTOV, MINISTER OF ENERGY AND
ELECTRIFICATION

(NOTE: NIKOLAY SHTEYNBERG, FORMER HEAD OF THE DEFUNCT
STATE COMMITTEE FOR NUCLEAR REGULATION, NOW A PRIVATE
CONSULTANT ON NUCLEAR MATTERS, SAYS THAT HE HAS ALSO
BEEN APPOINTED TO SERVE ON THE COMMISSION.)
MILLER



EUROPEAN UNION

DELEGATION OF THE EUROPEAN COMMISSION IN UKRAINE

Kyiv, 8 February 1996

Ref: 1413

Mr. Yevtukhov
Vice Prime Minister of Ukraine

Subject: EU-US Joint Programme
Social Impact resulting from the closure of Chernobyl NPP.

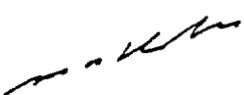
During October last year the attached draft terms of reference for the above project was submitted to the Government, Deputy Prime Minister Mr. Kuras, for comments and approval. We understand that you are the Chairman of the newly established President's Committee dealing with Chernobyl issues, including the social impact of closure. We are therefore sending you a copy of the draft terms of reference for comments. In the meantime we would like to provide you with some background of the work that has been undertaken to date.

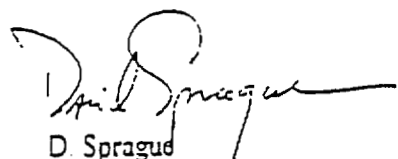
Since October 1995, some preliminary work has been undertaken. Early investigation of the probable social impact of closure indicated that a plan of action to alleviate the major consequences must entail a thorough investigation of the potential economic and budgetary implications of closure on the city of Slavutich and the surrounding region. Specifically, it was recognized that the present method of funding municipal services is largely dependent on the revenue from CNPP. It was also recognized early in the process that potential sources of revenue such as taxes and enterprise generated finances was extremely limited, and that any plan of action must consider strategies for sustainable economic and employment development of the region.

Ukrainian representatives on the joint project team specified their concern for factors such as the lack of legislation that will enable the establishment of an economic environment that will encourage investments in small and medium sized enterprises, special economic zones and local banking capacity. It was recognized that success would be largely dependent upon finances generated by self-development and business activities as phase out and closure occurs and that fundamental business acumen and training would be critical elements. Future success is seen as requiring a high degree of co-ordination among all major participants, the Government of Ukraine, the leadership of the Region and officials of CNPP.

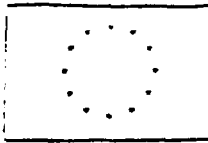
Since the signing, on 20 December 1995, of the G-7 - Ukraine Memorandum of Understanding, the joint Ukrainian-EU-US team began the elaboration of major elements of the objectives specified in the draft joint Terms of reference. We understand that President Kuchma has announced the establishment of a Presidential Committee to administer Ukrainian responsibilities under the terms of the G-7 Memorandum of Understanding with the Ukrainian Government. Given this new development, we would appreciate your views on the draft Terms of Reference.

Members of the EU-US team will be in Ukraine during week commencing 19 February and we would appreciate meeting with you or your team to discuss the main components of the project.


M. B. Humphreys
Head of Technical Assistance


D. Sprague
USAID Deputy Director

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EUROPEAN UNION

DELEGATION OF THE EUROPEAN COMMISSION IN UKRAINE

Київ, 8 лютого 1996 р.
Вих.: 1413

Пану Євтухову
Вище-Прем'єр-Міністру України

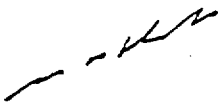
Стосовно: Соціальних наслідків закриття Чорнобильської АЕС.

У жовтні минулого року проект Технічного завдання (додається) з зазначеного проекту був надісланий до Уряду, Вище Прем'єр-Міністру пану Курасу для коментарів та узгодження. Ми знаємо, що Ви є Головою новоутвореного Комітету при Президенті з питань Чорнобиля, включаючи соціальні наслідки закриття. Тому ми надсилаємо Вам копію проекту Технічного завдання для зауважень. Ми хотіли б також дати деякі пояснення щодо роботи, яка вже була зроблена до цього часу.

З жовтня 1995 р. вже була зроблена деяка попередня робота. Раннє вивчення можливих соціальних наслідків закриття показало, що план дій по пом'якшенню головних наслідків повинен бути зв'язаним з доскональним вивченням потенційного економічного та бюджетного значення закриття для міста Славутич та навколишнього регіону. Особливо було виявлене, що тепершні методи фінансування муніципальних служб багато в чому залежать від доходу ЧАЕС. Також було встановлено, що потенціальні джерела надходжень, такі як податки та фінанси, що вироблятимуться підприємством, були дуже обмежені, та що будь-який план дій повинен враховувати стратегії стабільного економічного росту та розвитку зайнятості у цьому регіоні.

Українські представники спільної команди проекту висловили йше занепокоєння такими факторами як дефіцит законодавчої бази, що дозволила б створити економічне середовище, яке б заохотило інвестиції в малі та середні підприємства, спеціальні економічні зони та місцеві банківські потужності. Було зазначене, що успіх у великій мірі залежатиме від фінансів, які вироблятимуться саморозвитком та від комерційної діяльності протягом виведення з експлуатації та закриття та що серйозними елементами повинні стати фундаментальний бізнес та навчання. Майбутній успіх вбачається також, що вимагатиме високого рівня координації між усіма головними учасниками. Урядом України, керівництвом регіону та офіційними особами з ЧАЕС.

З моменту підписання 20 грудня 1995 р. Меморандуму про порозуміння між Україною та країнами "Великої Сімки" спільна команда України/Б ЄС та США почала розробляти головні елементи шлей, що були визначені в проекті спільного Технічного завдання. Ми розуміємо, що Президент Кучма оголосив створення Комітету при Президенті для керівництва питаннями, що знаходяться у відповідальності української сторони у відповідності до Меморандуму про порозуміння між країнами "Великої Сімки" та українським Урядом. Приймаючи до уваги цей новий розвиток подій, ми були б дуже вдячні за Ваші коментарі до проекту Технічного завдання. Члени команди ЕС-США будуть у Києві на тижні, що починається 19 лютого, і ми були б вдячні за можливість зустрітися з Вами або членами Вашої команди для обговорення основних складових проекту.


М. Б. Хамфріс,
Керівник Технічної Допомоги


J. Спраг,
Заступник Директора USAID

In September 1995, representatives of the EU and US began the process of elaborating a Terms of Reference (TOR) designed to describe future joint activities of the Government of Ukraine, the European Union and the United States in fulfilment of the commitments contained in the G7 - Ukraine Memorandum Concerning the Closure of Chernobyl Nuclear Power Plant (CNPP). Among those commitments was a recognition of the implications of closure for workers and families associated with CNPP. There was agreement that the EU and US would assist the Government of Ukraine to develop an action plan for addressing the social impacts of closure.

Preliminary work began in October 1995 when a draft TOR was transmitted to the Government of Ukraine for comment and approval. Early investigation of the probable social impact of closure indicated that a plan of action to alleviate the major consequences must entail a thorough investigation of the potential economic and budgetary implications of closure on the city of Slavutich and the surrounding region. Specifically, it was recognised that the present method of funding municipal services is largely dependent on revenue from CNPP. It was also recognised early in the process that potential sources of revenue such as taxes and enterprise generated finances was extremely limited, and that any plan of action must include a strategy for sustainable economic (and employment) development of the region.

Ukrainian representatives on the joint project team specified their concern for factors such as the lack of legislation that will enable the establishment of an economic environment that will encourage investment in small and medium sized enterprises, special economic zones and local banking capacity. There was also broad recognition that future activities would not be supported by the availability of massive funding from either national or international sources in the amounts necessary to sustain a successful plan of action to address the anticipated social impacts. There was early recognition that success would be largely dependent upon finances generated by self-development and business activities as phase out and closure occurs and that fundamental business acumen and training would be critical elements. Future success is seen as requiring a high degree of coordination among all major participants, the Government of Ukraine, the leadership of the Region and officials of CNPP.

Since 20 December 1995 when the G7 Memorandum of Understanding was signed, the joint Ukrainian-EU-US team began the elaboration of major elements of the objectives specified in the draft joint Terms of Reference. In the interim, President Kuchma has announced the establishment of a Presidential Committee to administer Ukrainian responsibilities under the terms of the G7 Memorandum of Understanding with the Ukrainian Government. The project team will establish a relationship with the Presidential Committee for support and guidance in conducting the social impact study.

ТЕХНІЧНЕ ЗАВДАННЯ ПО ПРОЕКТУ

ПІДГОТОВКА ПЛАНУ ДІЙ ЩОДО СОЦІАЛЬНИХ ПРОБЛЕМ ЧОРНОБИЛЬСЬКОЇ АТОМНОЇ ЕЛЕКТРОСТАНЦІЇ ТА МІСТА СЛАВУТИЧ

А. Мета проекту

Проаналізувати соціальні наслідки закриття Чорнобильської АЕС (ЧАЕС) та сучасний стан робочої сили ЧАЕС, населення та економічних основ регіону м.Славутич, а також розробити пропозиції (рекомендації) щодо організації та забезпечення довгострокового (поступального) розвитку регіону м.Славутич.

Б. Вихідна інформація

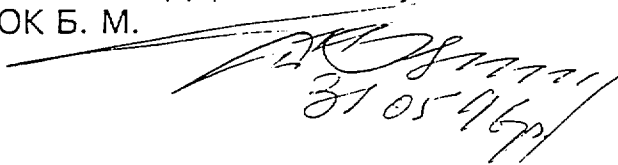
20 грудня 1995 року Уряд України та Представники держав Великої сімки підписали Меморандум про взаєморозуміння щодо закриття ЧАЕС.

Президент Кучма визначив необхідність надання західної допомоги у чотирьох головних напрямках (знаходження адекватного заміника ЧАЕС з точки зору обсягів енергії, що виробляється; виведення ЧАЕС з експлуатації і поводження з радіоактивними відходами; надання допомоги щодо фінансування робіт на «Саркофазі» 4-го енергоблоку; пом'якшення соціальних наслідків закриття ЧАЕС). Представники держав Великої сімки співпрацюють з українською стороною у розробці комплексної програми щодо закриття ЧАЕС. Ця програма повинна охоплювати всі чотири напрямки. До елементів програми, які розглядаються, входить довгостроковий план поступального розвитку регіону м.Славутич. ЄС і США дали згоду співпрацювати з Україною у сфері аналізу теперішнього та майбутнього розвитку регіону м.Славутич і виділили кошти на тристоронню участь спеціалістів, які зайняті в проекті. Аналіз міститиме рекомендації стосовно заходів щодо забезпечення розвитку регіону, яких можна було б вжити в контексті загальної програми економічної реструктуризації в Україні. Необхідність проведення огляду було визначено спільною місією ЄС і США в Україні наприкінці 1994 року внаслідок обговорень, проведених із широким колом українських офіційних осіб і представників ЧАЕС та Славутича, нового, спеціально побудованого міста, де зараз мешкає більшість працівників ЧАЕС зі своїми сім'ями. Робота по проекту у плані накопичення даних, проведення соціологічних опитувань та аналізу матеріалу була розпочата в листопаді 1995 року.

В. Цілі

Цілями даного проекту є:

Заступник голови Держкоматому
ДЕМИДЮК Б. М.



31 05 1997

- проаналізувати поточну економічну та соціальну структуру регіону Славутича, приділяючи особливу увагу персоналу ЧАЕС, членам їх сімей та мешканцям міста Славутич та Славутичського регіону;
- розробити генеральну стратегію щодо вирішення питань, пов'язаних з соціальними потребами, які будуть визначені в процесі проведення аналізу;
- підготувати план дій, спрямованих на вирішення питань, пов'язаних з основними соціальними та економічними потребами, які будуть виявлені в процесі аналізу, включаючи можливе проведення юридичної (законодавчої) діяльності;
- розробити відповідні механізми та структури для координації ініціатив, визначених планом дій, які направлені на забезпечення поступального розвитку регіону Славутича.

Г. Бенефіціарії проекту

Безпосереднім Бенефіціарієм проекту є Державний комітет України по використанню ядерної енергії.

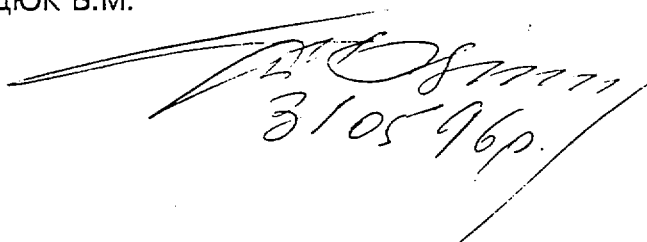
Опосередкованими Бенефіціаріями проекту є персонал ЧАЕС та їхні сім'ї, мешканці Славутича та Славутичського регіону.

Д. Обсяг проекту та документація за проектом

Проект охоплюватиме питання соціального впливу як на громадян, так і на місцевий та регіональний ринки праці. По-перше, буде зібрано дані щодо віку та кваліфікації робітників ЧАЕС. Це допоможе визначити можливості раннього виходу на пенсію, перепідготовки та переведення на інше місце роботи. По-друге, буде проведено аналіз існуючої політики, програм та ресурсів щодо соціального захисту робітників і запропоновано зміни до цих документів з метою стимулювання процесу створення нових робочих місць, розвитку альтернативної економічної діяльності, а також з метою вирішення питань щодо мобільності робочої сили.

Рекомендовані заходи за проектом мають якомога ширше відобразити досягнутий учасниками консенсус та розуміння ними ситуації. Рекомендації мають ґрунтуватися на реальних обставинах і ймовірних майбутніх умовах в Україні таким чином, щоб вони були повністю зрозумілими для сторін-учасниць і відповідали їх політиці. Всі заходи за проектом мають узгоджуватися з іншими заходами та дослідженнями, фінансованими Україною та донорами, які можуть бути корисними для успіху проекту. Зокрема, буде налагоджено співробітництво з фінансованими ЄС Проектом надання послуг з працевлаштування в Україні, а також з Агенством міжнародного розвитку США, у сфері реформування соціальної політики України для того, щоб

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привести її у відповідність з вимогами ринкової економіки. Проект надання послуг з працевлаштування в Україні має за мету допомогти в розробці ефективної системи працевлаштування у Славутицькому регіоні.

Перш за все буде розглянуто очікувані потреби у робочій силі для виведення з експлуатації ЧАЕС та поводження з радіоактивними відходами включаючи можливості роботи по реконструкції «Саркофагу». Дослідження, яке буде проведено ЄС в межах програми TACIS, визначить відповідну потребу в робочій силі. Робітники, необхідні для проведення названих заходів, можливо, знадобляться на значний період часу після закриття ЧАЕС.

Враховуючи те, що більшість персоналу ЧАЕС є висококваліфікованим, ймовірно, існуватиме додаткова можливість працевлаштування через нещодавно створений Міжнародний дослідницько-технологічний центр (МДТЦ) у Славутичі, який може залучати місцевих спеціалістів у сфері атомної енергетики.

У рамках проекту буде проведена оцінка відповідності навиків робітників та попиту на робочу силу, а також очікуваного попиту на неї з метою визначення реальної та очікуваної можливості працевлаштування за межами Славутичського регіону. Особливу увагу в проекті буде приділено розробці рекомендацій по забезпеченню умов, які направлені на залучення інвестицій, на стимулювання місцевої підприємницької активності, на розвиток малого бізнесу та створення нових робочих місць.

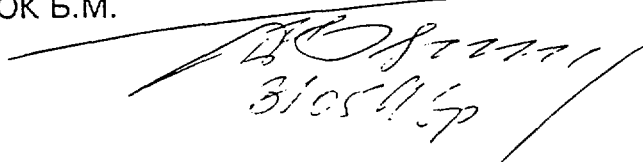
Важливим документом, який має бути підготовлено протягом виконання проекту, є набір ґрунтовних та прагматичних рекомендацій, які подаються на розгляд зацікавлених сторін, складений таким чином, щоб він був чітко зрозумілим і міг бути ухваленим як план дій. Кожен захід або програма, рекомендована робочою групою проекту, має супроводжуватися детальним описом, попереднім графіком виконання робіт та попереднім бюджетом. Для підтримки та пояснення висновків та рекомендацій має бути надано матеріали навчального та інформаційного характеру. До їх складу можуть входити графічні, друковані та відеоматеріали придатні для презентації у засобах масової інформації і спрямовані на інформування осіб та груп населення, які зазнаватимуть найбільшого впливу у зв'язку із закриттям ЧАЕС.

Є. Організація проекту

(1) Об'єднаний Координаційний Комітет

Проект має виконуватися під загальним керівництвом Об'єданого Координаційного Комітету (ОКК). ОКК має виступати спонсором проекту. Він забезпечуватиме координацію участі сторін, своєчасне постачання необхідної інформації і контроль цілей, обсягу та ходу виконання проекту

Заступник голови Держкоматому України
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і слідкуватиме за підготуванням документації за проектом. ОКК буде нести остаточну відповідальність за виконання плану дій. Склад ОКК буде таким:

Від України:

- Заступник голови Державного комітету України по використанню ядерної енергії (Демидюк Борис Мартинович), який виступатиме як Голова;
- представники відповідних міністерств та урядових комісій.

Представники:

- керівництва ЧАЕС;
- місцевих органів влади;

Від Європейського Співтовариства:

- Директор європейської програми ТАСІС в Україні.

Від Сполучених Штатів Америки:

- Заступник голови місії американської агенції з міжнародного розвитку в Україні, Білорусі та Молдові.

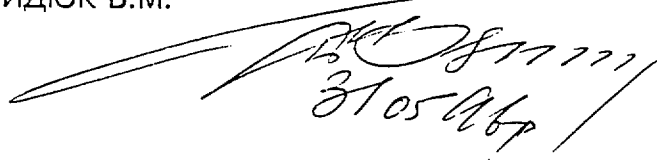
Склад Координаційного комітету по реалізації проекту додається.

Представників міжнародних фінансових організацій (МФО) та інших організацій-донорів можливо буде запрошено взяти участь у деяких або усіх засіданнях ОКК та оглядових семінарах, про які йдеться нижче.

(2) Об'єднана Робоча Група

Проект має виконуватися Об'єднаною Робочою Групою (ОРГ), що складатиметься з експертів від України, ЄС і США, які працюватимуть під загальним керівництвом Головних Консультантів від України (голова ОРГ: заступник генерального директора ЧАЕС, Гаврилін Владислав Васильович), ЄС та США, призначених представниками програми ТАСІС та Американської агенції з міжнародного розвитку в Україні відповідно. ОРГ має складатися з експертів із взаємодоповнюючою компетенцією та досвідом, участь яких у проекті полягатиме у проведенні семінарів,

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приватних консультацій, організації навчальних турів. Тривалість роботи експертів залежатиме від потреб проекту, наявності окремих осіб та ресурсів сторін-учасниць.

ОРГ, яка працюватиме переважно в Україні, буде відповідальною за планування та проведення усіх заходів за проектом. Це буде включати підготування плану робіт за проектом, двотижневих звітів для ОКК про хід виконання проекту, організацію засідань ОКК у разі потреби, організацію та проведення низки семінарів, підготування матеріалів для засідань ОКК та семінарів, проведення навчальних турів до ЄС та США.

Остаточний варіант плану робіт має визначити всі напрямки дослідження та категорії рекомендацій. Протягом підготування плану робіт та виконання проекту Головні Консультанти мають максимально повно використовувати послуги українських фахівців та здійснювати координацію з іншими відповідними проектами та заходами, які проводяться Україною, ЄС, США або іншими донорами. Особливу увагу слід приділити роботі у тісному співробітництві з Всесвітнім Банком та іншими міжнародними фінансовими організаціями і отриманню від них відгуків та консультацій протягом проведення дослідження та підготування рекомендацій.

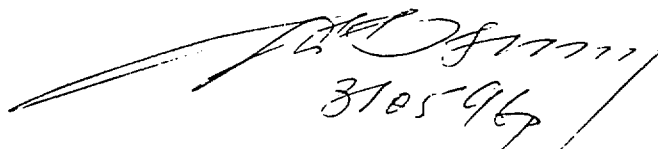
Передбачається, що протягом виконання проекту може виникнути необхідність в організації тимчасових допоміжних комітетів або у проведенні короткострокових досліджень. Враховуючи це, у разі необхідності можуть знадобитися і, відповідно, будуть надані на обмежений строк відповідними фінансуючими організаціями послуги спеціальних консультантів і/або спеціалістів.

Ж. Участь сторін у проекті

Участь України, ЄС і США у проекті буде наступною:

1. Участь України:
 - * учасники проекту від України:
 - Голова ОКК;
 - необхідна кількість експертів-членів ОРГ;
 - представники уряду та місцевих органів влади, керівництво та персонал ЧАЕС, інші члени ОКК від України;
 - * інше:
 - необхідна економічна та соціальна інформація, за вимогою ОРГ;

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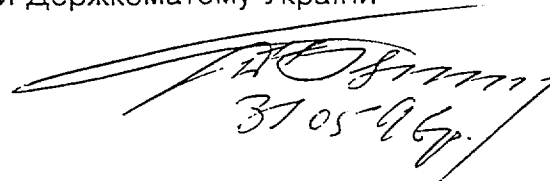
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- приміщення та необхідне обладнання для проведення в Україні засідання Об'єднаного Координаційного Комітету та зустрічей ОРГ.
2. Участь Європейського Союзу:
- * учасники проекту від ЄС:
 - представник ЄС у ОКК;
 - Головний Консультант/Координатор для ОРГ;
 - * інше:
 - прийом делегації України та сплатення видатків протягом навчального туру в Європу;
 - друковані та відеоматеріали про досвід ЄС у відповідній галузі;
 - часткова оплата послуг перекладачів під час проведення зустрічей, перекладу та відтворення документації.
3. Участь Сполучених Штатів Америки:
- * учасники проекту від США:
 - представник США у ОКК;
 - Головний Консультант/Заступник Координатора Проекту для ОРГ;
 - інші експерти від США;
 - * інше:
 - прийом делегації України та сплатення видатків протягом навчального туру в США;
 - друковані та відеоматеріали про досвід США у відповідній галузі;
 - часткова оплата послуг перекладачів під час проведення зустрічей, перекладу та відтворення документації.

3. Виконання проекту

Виконання проекту повинно розпочатися після тристороннього ухвалення цього Технічного Завдання. Виконання проекту буде розділено

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на шість окремих етапів, які іноді збігатимуться за часом проведення і буде завершено до/приблизно 30 жовтня 1996 року. Етапи виконання проекту такі:

Етап 1 - початок виконання проекту:

- утворення Об'єднаного Координаційного Комітету;
- утворення Об'єднаної Робочої Групи;
- розробка і презентація ОРГ плану робіт за проектом.

Етап 2 - заходи з інформування громадськості

Збільшення поінформованості громадськості щодо проекту, його цілей та потенційних покращень внаслідок його виконання. Інформування західних партнерів щодо тих проблем, які потребуватимуть вирішення внаслідок закриття ЧАЕС.

Етап 3 - збір та оцінка інформації

Досягнення широкого розуміння існуючих урядових та приватних ресурсів, відповідних політичних питань, орієнтації суспільства та доцільності ініціатив за проектом у різних регіонах України, у колишньому Радянському Союзі в цілому, у державах ЄС і в США. Проведення навчальних турів.

Етап 4 - розробка плану дій

Розробка конкретних рекомендацій та пропозицій і координація з усіма сторонами за проектом.

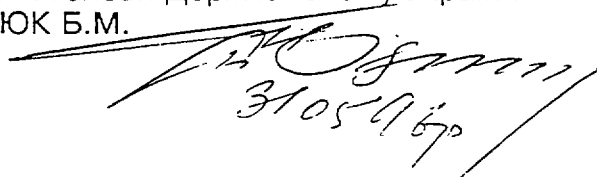
Етап 5 - затвердження плану дій

Презентація, аналіз і затвердження рекомендацій та пропозицій. остаточно План дій схвалюється Головою координаційного комітету, представниками Європейської програми ТАСІС в Україні та місії американської агенції з міжнародного розвитку.

Етап 6 - завершення проекту

Відтворення та розповсюдження затверджених документів.

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**Склад координаційного комітету по реалізації
спільного проекту України, ЄС та США по забезпеченню
соціального розвитку м.Славутича**

- | | | |
|--|---|---|
| 1) Демидюк Борис Мартинович
заступник голови Держкоматому
т. 462-57-97 | - | голова координаційного
комітету |
| 2) Удовиченко Володимир Петрович
голова Славутичської міської
Ради народних депутатів | - | заступник голови
координаційного
комітету |
| 3) Парашин Сергій Костянтинович,
генеральний директор ВО
Чорнобильська АЕС | - | заступник голови
координаційного
комітету |
| 4) Приймаченко Микола Іванович
заступник голови Київської
облдержадміністрації (за згодою) | | |
| 5) Вегера Світлана Анатоліївна
заступник Міністра соціального
захисту населення України | | |
| 6) Майкл Хамфріс
Директор європейської програми ТАСІС
в Україні | | |
| 7) Девід Спрег
Заступник директора місії
Американської агенції з міжнародного розвитку
в Україні, Білорусі та Молдові | | |

Склад

об'єднаної робочої групи по реалізації
спільного проекту України, ЄС та США
по забезпеченню соціального розвитку м.Славутич

Гаврилін Владислав Васильович
заступник генерального директора
ВО ЧАЕС по кадрам та соціальним
питанням
тел. (04479) 2 63 46

- Голова групи

Готсдінер Марк Наумович
заступник голови Славутської міської
Ради народних депутатів
тел. (04479) 2 66 56

- заступник голови групи

Роджер Шорт
Головний консультант/ Координатор проекту
Європейське Співтовариство

Бернард Келлі
Головний консультант/ Заступник координатора проекту
Сполучені Штати Америки

Члени групи:

1. Богута Віктор Кузмич,
Директор Київського обласного
центру зайнятості

2. Писаренко Анатолій Аркадійович
заступник голови постійної
комісії Верховної Ради України
з питань економічної політики

3. Андрюшенко Анатолій Іванович
начальник управління Київської
облдержадміністрації

4. Козицький Олександр Олександрович
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політики міністерства економіки України

5. Лакомов Володимир Іванович
заступник голови Агенства
координації міжнародної технічної
допомоги

6. Тимошенко Галина Іванівна
начальник відділу соціального захисту осіб
при надзвичайних ситуаціях та громадян,
які постраждали від Чорнобильської
катастрофи Міністерства соціального
захисту населення України

7. Третяк Юлія Петрівна
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8. Ходько Володимир Іванович
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начальник відділу Держкоматому
тел. 294 48 08

10. Прокопенко Іван Олександрович
начальник відділу Держкоматому
тел. 294 48 58

11. Клименко Генадій Олексійович
головний консультант комісії Верховної
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12. Проскура Микола Іванович
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13. Опалева Ірина Володимірівна
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розвитку міста Славутичського МВК
тел. (044 79) 2 68 86

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE GOVERNMENTS OF THE G-7 COUNTRIES AND
THE COMMISSION OF THE EUROPEAN COMMUNITIES
AND
THE GOVERNMENT OF UKRAINE
ON THE CLOSURE OF THE
CHERNOBYL NUCLEAR POWER PLANT

THE RESPECTIVE GOVERNMENTS OF THE G-7 COUNTRIES AND THE COMMISSION OF THE EUROPEAN COMMUNITIES, hereinafter referred to as "the G-7", and **THE GOVERNMENT OF UKRAINE**, hereinafter referred to as "Ukraine", have developed a cooperative approach on the elaboration and implementation of a Comprehensive Program to support the decision of Ukraine to close the Chernobyl Nuclear Power Plant by the year 2000, as formulated by President Kuchma in his statement of April 13, 1995, and in his letter of August 8, 1995, to G-7 Leaders. The Program will thus implement the commitments of the leaders of the G-7, made in Naples, Italy, in 1994 and Halifax, Canada, in 1995.

The program is guided by the following principles:

- The friendly relationships among Ukraine and members of the G-7;
- The critical linkages between energy sector reform and the achievement of Ukraine's economic and social reform objectives;
- The complementarity between measures summarized herein to support the closure of the Chernobyl Nuclear Power Plant and the development of a long term energy sector strategy in Ukraine, taking into account sound economic, financial and environmental criteria, and leading to an efficient sustainable, market-oriented energy sector well-suited to Ukraine's needs;
- The necessity of the continuous promotion of a high level of nuclear safety around the world taking into account the principles specified in the International Convention on Nuclear Safety and the recognition of the essential role played in this regard by a strong and independent national nuclear safety regulator;
- The need to mobilize financial resources from the international community and domestic sources to support the decision of Ukraine to close the Chernobyl Nuclear Power Plant.
- The need to ensure full co-operation from the Ukrainian entities associated with all elements of the comprehensive program.
- The recognition that the early closure of the Chernobyl Nuclear Power Plant will have adverse economic and social implications for Ukraine while also facilitating the flow of international financial resources and improving the national standards of nuclear safety.

- The recognition of the fact that the responsibility for nuclear safety lies exclusively with the operating state, including an effective regime for liability for nuclear damage corresponding to accepted international norms.
- The desirability of increasing energy efficiency.
- The importance of our joint commitment to take all necessary measures for the decommissioning of the Chernobyl Nuclear Power Plant in the shortest, practically achievable time.

Ukraine and the G-7 have decided upon the following Comprehensive Program of cooperation in order to support the closure of the Chernobyl Nuclear Power Plant by the year 2000:

I. Power Sector Restructuring

1. Ukraine and the G-7 will continue to cooperate in the development of a financially-sound electric power market with market-based pricing that will encourage energy efficiency and conservation and will work cooperatively in generating and attracting the domestic and international resources needed both for safety measures and for new capital investment in power generation, transmission and distribution.

II. Energy Investment Program

2. Ukraine and the G-7 will work with the international financial institutions as well as foreign and domestic investors to prepare loan-financed projects based upon least-cost planning principles for completion of Khmelnytsky II and Rovno IV nuclear reactors, for thermal and hydro plant rehabilitation and pumped storage projects, and for energy efficiency projects in accordance with Ukraine's energy sector strategy. In order to support the closure of the Chernobyl Nuclear Power Plant, the investment program will identify least-cost power supply investments to meet Ukraine's future national power requirements in the context of a competitive market-based power sector.

III. Nuclear Safety

3. Ukraine and the G-7 will work with the relevant international organizations as well as multilateral and bilateral donors on an expedited basis to prepare and implement projects for short term safety upgrades at Chernobyl III and for decommissioning of the Chernobyl Nuclear Power Plant.
4. Ukraine and the G-7 will continue to cooperate in the development of a cost effective and environmentally sound approach to the shelter for Chernobyl IV, including the definition, as soon as possible, of technical and cost options as the basis for reviewing financial requirements.

IV. Social Impact Plan

5. Ukraine and the G-7 recognize the implications of the closure of the Chernobyl plant for the workers and their families. The European Commission and the Government of the United States will assist the Government of Ukraine to develop an Action Plan for addressing the social impacts of the closure of Chernobyl.

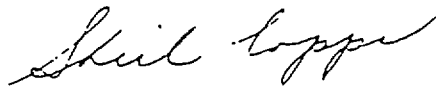
V. Financial Resources

6. To provide for the implementation of the program outlined in paragraphs 1-5, Ukraine and the G-7 will cooperate in the identification of international and domestic Ukrainian funding sources and the mobilization of international finance in support of appropriate program activities.
7. Attachment 1 presents a summary of the current financial resources either available or under consideration from the G-7 and international financial institutions. Some elements are subject to the completion of project specific feasibility studies. Attachment 2 provides the list of priority projects of the Comprehensive Programme.
8. As a guiding principle, revenue generating projects would be considered for international loan financing and Ukrainian domestic resources. Non-revenue generating projects, directly related to the closure of the Chernobyl Nuclear Power Plant, would be considered for international grant financing and, taking into account the financial and economic situation in Ukraine, Ukrainian domestic resources.

VI. Implementation Review

9. Representatives of Ukraine, the G-7, and the international financial institutions will meet at least annually to monitor implementation of the comprehensive program for the closure of the Chernobyl Nuclear Power Plant and consider any technical or financial issues that represent potential obstacles to realizing its objectives.

Done in Ottawa, this 20th day of December 1995, in duplicate, in the English and Ukrainian languages, each text being equally valid.



FOR THE GOVERNMENTS OF
THE G-7 COUNTRIES AND THE
COMMISSION OF THE EUROPEAN
COMMUNITIES



FOR THE GOVERNMENT
OF UKRAINE

**G-7/UKRAINE COMPREHENSIVE PROGRAM
FOR THE CLOSURE OF CHERNOBYL**

**SUMMARY OF CURRENT FINANCIAL RESOURCES
FROM THE INTERNATIONAL COMMUNITY**

(US \$ MILLIONS)

	GRANTS ¹	IFI AND EURATOM LOAN FINANCING ²	TOTALS ³
POWER SECTOR RESTRUCTURING	43		43
ENERGY INVESTMENT PROGRAM	102	1,809	1,911
NUCLEAR SAFETY AND DECOMMISSIONING	349		349
SOCIAL IMPACT PLANNING	4		4
TOTALS	498	1,809	2,307

1. Committed.
2. Some loans are pending subject to approval based on necessary feasibility studies.
3. Ukrainian in-kind and financial contributions will be defined as projects are developed.

COMPREHENSIVE PROGRAM OF THE G-7 AND UKRAINE
TO SUPPORT THE CLOSURE OF THE
CHERNOBYL NUCLEAR POWER PLANT

PRIORITY PROJECTS

I. LIST OF NON-REVENUE GENERATING PROJECTS

PROJECT AND
CORRESPONDING MOU PARAGRAPH

- 1.* DECOMMISSIONING OF THE CNPP
PARAGRAPH 3
 - 1.1 STAGE 0 (5 YEARS)
PREPARATORY WORK PRIOR TO DECOMMISSIONING OF
CNPP
 - 1.2 STAGE 1. (10 YEARS AFTER COMPLETION OF STAGE 0)
FUEL AND WASTE MANAGEMENT
 - 1.3 STAGE 2 (9 YEARS AFTER COMPLETION OF STAGE 0)
DECOMMISSIONING OF CNPP
2. PLAN TO DEAL WITH SOCIAL IMPACT
RELATED TO CLOSURE OF CNPP
PARAGRAPH 5
3. SHORT TERM NUCLEAR SAFETY
IMPROVEMENTS FOR CNPP UNIT #3
PARAGRAPH 3
- 4.** TRANSFORMATION OF "SHELTER"
INTO AN ENVIRONMENTALLY SAFE SYSTEM
PARAGRAPH 4

5. POWER SECTOR RESTRUCTURING

PARAGRAPH 1

II. REVENUE GENERATING PROJECTS

6. COMPLETION OF ROVNO #4 AND KHMELNITSKY #2 PARAGRAPH 2

6.1 SAFETY IMPROVEMENTS AND COMPLETION OF
KHMELNITSKY #2 AND ROVNO #4

6.2 CONSTRUCTION OF HV TRANSMISSION LINES TO
KHMELNITSKY AND ROVNO UNITS

7. REHABILITATION OF THERMAL POWER PLANTS

PARAGRAPH 2

8. INTRODUCTION OF PEAK CAPACITIES

PARAGRAPH 2

- CONSTRUCTION OF DNIESTER PUMPED STORAGE

9. ENERGY EFFICIENCY AND DEMAND SIDE MANAGEMENT

PARAGRAPH 2

PROJECTS REQUIRING CLARIFICATION BEFORE BEING INCLUDED

10.*** RELOCATION AND CONSTRUCTION OF 750KV SWITCHYARD
OUTSIDE CONTAMINATED AREA AT CHERNOBYL NPP

* ESTIMATED COSTS WILL BE DEFINED, TAKING INTO ACCOUNT
THE AEA TECHNOLOGY STUDY

** ESTIMATED COSTS WILL BE DEFINED ACCORDING TO STUDIES OF
ALLIANCE CONSORTIUM AND THE PROTOCOL BETWEEN THE
EUROPEAN COMMISSION AND UKRAINE, SIGNED IN BRUSSELS, 11
SEPTEMBER 1995.

UKRAINE POWER RESTRUCTURING PROJECT

CHORNOBYL SOCIAL IMPACT TASK

May, 1996

Hagler Bailly Consulting, Inc.
1530 Wilson Boulevard, Suite 900
Arlington, VA 22209

USAID UKRAINE POWER RESTRUCTURING PROJECT *CHORNOBYL SOCIAL IMPACT TASK*

- Goals:
 - ▶ Ukrainian steering committee with broad participation
 - ▶ Action plan to alleviate social impact of CHORNOBYL NPP Closure
- Strategic Setting : G-7 Initiative; Joint EU-UK-US Project
- Work that has been accomplished
- Work that remains to be done
- Preview of potential Action Plan recommendations

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

STRATEGIC SETTING

- The Joint Project team is led by an EU TACIS consulting team.
- A draft Joint Terms of Reference for the Project was approved by G-7 members and forwarded to GOU for action.
- The Joint Project team has proceeded to create the conditions for the development of a social impact action plan in the absence of any official sanction or participation from the central government.
- The EU and US have hired local consultants to assist in establishing a central, local and enterprise level participation in a social impact steering committee. CNPP and Slavutich have eagerly participated.
- Central government participation and official response to TOR has been slow. This is due in some measure to their negotiating strategy with the G-7 as well as bureaucratic confusion over responsibility for implementing G-7 projects. The "Evtukhov" Commission and Goscomatom have indicated that they will sign and accept the TOR this month.
- CNPP has disclosed an accelerated closure schedule for unit 1 due to lack of funds for refueling. The morale of employees and residents is failing.

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

SOCIAL IMPACT SURVEYS AND WORKSHOPS

- Four workshops have been held with local, national and enterprise officials to help define the social impacts of closure. Most have been in the Slavutich region.
- EU TACIS has also funded an Employment Project in Slavutich to assist in developing a response to labor force issues.
- The Joint Project team has developed survey instruments for local implementation in the following areas:
 - ▶ detailed labor market survey of CNPP and Slavutich region
 - ▶ pilot survey of 30 existing Slavutich enterprises
 - ▶ attitude survey of Slavutich residents/CNPP workers
 - ▶ communal service and city expenditures
- Preliminary survey data were received on May 6th.

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

CNPP LABOR FORCE

- CNPP has provided the first raw data on workforce characteristics available to the working group.
- There are more than 11,000 workers receiving salaries from CNPP:

CNPP Station Workers

Ancillary Workers

6,472

5,327

- About 8,800 workers and their families live in Slavutich.
- A high percentage, 83% of station workers, are "liquidators" of the Chornobyl accident.
- The CNPP station workforce is predominantly male, relatively young and highly educated: 65 % are between 20 and 46 yrs, all have college-equivalent degrees.
- Fewer than 100 station employees are classified as semi-skilled. The largest pool of workers is technicians (64%), followed by engineers (20%) and managers (14%).
- The average monthly income for a station worker is about \$150 US.

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

"ANCILLARY" WORKFORCE

- Less is known currently about the make-up of these workers. They are lower paid, less desirable, service jobs.
- A greater percentage of these 5,300 workers live outside Slavutich (31%)
- The workers staff both plant jobs and city services:

--kindergartens	983
--cultural center	411
--Station Foodstuffs	1,444
--Refurbishment	284
--Guest Services	84

Subtotal 3,206

--ChNPP Housing & Communal Services	2,121
--	-------

- They are presumed to have a high percentage of liquidator status.
- Their average incomes are considered to be much lower.

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

WORKER/RESIDENT ATTITUDE SURVEY

- The results from this survey are very preliminary. However, they suggest that the Slavutich residents do not believe there is a need to find additional jobs or employers.
- Not surprising, in large numbers, they believe that state enterprises or individuals with state enterprises, are the sources of new or additional work. However, 24% indicated that "private enterprise" was also a viable employer.
- Privileges of enterprise employment, such as "vouchers", branch benefits, polyclinics, housing and low priced catered meals were widely held.
- Some 25% considered running their own business as a possibility, but cited numerous obstacles.
- Only 6% of residents considered their family financial situation "better than average". An minimum average income was considered to be \$218/ month for Slavutich.
- Over ¹⁸⁻²⁰30% own their homes.

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

The City of Slavutich

- Slavutich is less than 50 km from CNPP and the Oblast capital of Chernigev. The purpose-built city was completed in 1988 by teams of architects and constructors from 7 soviet republics. It is relatively modern, extremely well-maintained and has a diverse housing stock of flats and single dwellings.
- The city houses some ²⁶28,000 residents. They are evacuees from Pripyat and CHORNOBYL, retirees, workers and families of CNPP station, service and communal workers. There are almost 9,000 children under the age of 18.
- The housing stock provides larger than average dwellings in nearby cities. Transportation access to Kiev and Chernigev is above average with rail service and well-maintained highway system.
- The city administration is enthusiastic and professional. Currently, Slavutich is reported to be the only city in Ukraine with a "revenue surplus".
- Among the services the city provides directly are an employment center and an small enterprise development department. There are some 30 joint stock or private enterprise firms in Slavutich region. They employ only a small percentage of the population.
- The city administration is concerned that the transfer of assets to the city will result in a lowering of standard of living in the city. They are anxious to "attract" or "grow" new enterprises.

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

WORK TO BE COMPLETED

- There are still gaps in getting a handle on the overall social effects and timing of CHORNOBYL closure impacts:
 - ▶ the employment potential and details of the implementation of the G-7 projects and other donor initiatives
 - ▶ (CNPP's Paroshin has estimated almost 3,500 jobs related to sarcophagus, safety and decommissioning)
 - ▶ survey of city finances and CNPP communal services
 - ▶ central government social programs
 - ▶ Assist working group in developing a draft Interim Action Plan

Based on the EU TACIS schedule, these should be completed by the end of June. The USAID advisors are taking the lead on city finance and services as well as the legal framework for social benefits.

- A method of constructive engagement of the central government players beyond interviews and meetings is needed. The team believes that the preparation of a draft "interim Action Plan" will provide a tangible focus for their active involvement in planning and workshop sessions.

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

PREVIEW OF POTENTIAL ACTION PLAN COMPONENTS

- The general direction of recommendations is based on the participation in local workshops, interviews with enterprise and central government officials and interviews with the donors. It is however, a Ukrainian plan and will reflect their priorities and experience.
- Recommendations to achieve the following have been discussed:
 - Active program to attract new employers to the Slavutich region
 - Gradual program to move the population of Slavutich to other locales
 - Immediate program to avoid social unrest in Slavutich
 - Continuation of salaries for redundant CNPP station workers and transfer of communal assets/workers to Slavutich
 - Retraining and training programs for redundant workers related to other energy generation, decommissioning & waste management and G-7 programs
 - Job preference for CNPP workers/liquidators at other energy plants
 - Bridge grants from foreign donor to maintain communal services/workers

USAID UKRAINE POWER RESTRUCTURING PROJECT CHORNOBYL SOCIAL IMPACT TASK

POSSIBLE DONOR INTERVENTIONS RELATED TO SOCIAL ACTION PLAN

- Maintain a joint EU-UK-US Social Project presence to assure progress to implement action plan recommendations.
- Develop goals for employment of Slavutich region workers/liquidators in donor funded projects related to G-7 MOU.
- Design ^{bilateral} projects for energy efficiency, health maintenance and radioactive waste management and decontamination in the Slavutich/Chernigev region; such as, Slavutich demonstration program; Chernigev textile industry efficiency improvement; Chernigev electric motor repair center; forest cultivation on contaminated land; biotechnology: manufacture of basic serums.
- Establish enterprise fund for SME development related to long term G-7 MOU projects; e.g., West NIS "Chornobyl" fund.
- Encourage removal of legal and banking impediments to private enterprise formation.
- ~~Undertake an audit or financial/management review of the Chornobyl fund.~~

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

JOINT EU - UKRAINE - US PROJECT
TO ADDRESS THE SOCIAL IMPACT OF CHORNOBYL CLOSURE

USAID PROJECT UPDATE - OCTOBER 1996

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

OVERVIEW

- Goals:
 - ▶ Ukrainian Steering Committee with broad participation
 - ▶ Action plan to alleviate social impacts of Chernobyl NPP closure by 2000
- Strategic Setting: G-7 Initiative; Joint EU-UK-US Project led by EUTACIS
- Progress to date
- Overview of significant findings
- Actions needed from G-7 and Government of Ukraine

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

STRATEGIC SETTING

- A Joint Project Team from EU, UKRAINE and US is led by EU TACIS.
- A Joint Terms of Reference (TOR) for the Project was developed by EU and US and forwarded to GOU for action in October, 1995.
- The Joint Project Team proceeded to create the conditions for the sound development of a social impact plan in the absence of any official sanction from the central government
- The EU and US worked with local experts to establish broad stakeholder participation in a Joint Working Group to analyze the social impacts of closing CNPP. Chornobyl NPP workers and residents of the City of Slavutich (50 km east) have actively participated.
- Participation of the Government of Ukraine and official response to the TOR was slow. The Derzhcomatom signed the TOR and organized a Joint Coordinating Committee on May 31, 1996. However, Vice PM Yevtukhov and Dpty Minister Demydiuk have left the government.

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

PROGRESS TO DATE

- A broad-based "Joint Working Group" was formed local level officials, regional and national ministries to guide the planning process. Most of the work is centered in the Slavutich region more than 50 km east of ChNPP.
- Four workshops with local residents, officials, ChNPP officials and national government experts were held to define and characterize the social impacts of closing ChNPP by 2000.
- USAID funds two US and one local expert to assist with social impact analysis and planning. EU TACIS has funded three European experts and one local expert. TACIS also funded an Employment Service Project in Slavutich to help collect detailed labor force data and work with the local employment center. Study tours to US and Europe were held in August & September.
- Social surveys were developed, translated and locally administered
 - ▶ ChNPP workforce and local labor market
 - ▶ Worker and resident attitudes
 - ▶ Pilot survey of 30 existing Slavutich enterprises
 - ▶ Municipal finance and social assets

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

PROGRESS TO DATE (cont)

- An "Interim" Action Plan was prepared in June, 1996 to address the potential social impacts of closing ChNPP unit #1 by November, 1996.
- The Interim Action Plan recommends measures for employe/family information and counseling, local economic development, and maintenance of municipal/social infrastructure in Slavutich.
- The Interim Action Plan also identifies the information and guidance needed for the Social Action Plan to be completed.
- The Plan was submitted by the Joint Working Group to a Joint Coordinating Committee, composed of representatives of Derhzcomatom, Ministry of Social Protection, City of Slavutich, ChNPP, USAID and EU TACIS in August, 1996 .
- In October, 1996, the Joint Coordinating Committee requested "the position" of the Government of Ukraine, through the First Vice Prime Minister, on the general strategy (to assist workers and diversify Slavutich) and the assignments to continue the joint work.

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

OVERVIEW OF SIGNIFICANT FINDINGS

- ChNPP is typical of soviet-style enterprises. Its productive **workforce is larger** (6,500) than expected. It employs another 5,000 service workers. ChNPP virtually operates the City of Slavutich where most of its workers live. It provides bonuses and wage enhancements to local teachers and doctors to improve their living standard. About 12,000 individuals are directly dependent on ChNPP for their income.
- Preliminary **employment estimates are lower** than expected. AEA/TACIS projects a five year lag in job creation until the waste facility is completed in 2003. Decommissioning, waste management and other G-7 MOU projects may employ 1,500 workers between 2005 and 2030.
- The average income and **living standard for a Chornobyl station worker in Slavutich is more than three times the Ukrainian average**. It is also higher than at other Ukrainian nuclear plants.
- A high percentage, 83% of ChNPP station workers, and Slavutich residents are "**liquidators**" of the Chornobyl accident. This entitles them to various wage supplements and social benefits .

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

SIGNIFICANT FINDINGS (cont.)

- Budgets for ChNPP and the Government of Ukraine are silent on the issue of social protection for workers of ChNPP and the City of Slavutich. Chornobyl Nuclear Power Plant has prepared a preliminary budget for decommissioning costs of unit #1 in 1997. The recently introduced GOU budget for 1997 includes funds for the "safety and maintenance of unit #2 (\$10.8M).
- Morale of workers and Slavutich residents is reported to be low. Since May, only a portion of salaries and entitlements is paid in cash. Coupons or "parashins" are received for redemption at city/enterprise shops.
- ChNPP had planned to fund 1997 City of Slavutich operations (\$32M) from a "budgetary account" (rather than electricity sales). These funds along with \$8.5M for preliminary decommissioning costs on unit #1 would provide some continued employment for potentially displaced workers. The Government of Ukraine has not explicitly included these amounts in the budget presented to Parliament in September.

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

FINDINGS (cont.)

- ChNPP employs (fully and partially) more than **11,700** workers.

ChNPP station workers - 6,472

ChNPP service sector workers - 5,309

- About **8,800 (75%)** of these workers live in the **City of Slavutich**. Others are in Kiev and Chernighev region.
- More than 60% of Slavutich' 26,000 residents are employes or dependents of ChNPP.
- The ChNPP station workforce is predominantly **male (73%), young and highly educated**. All have college level or greater degrees and 65% are between the age of 20 and 46 years old.
- The **City of Slavutich**: It is a modern, well-maintained, 8 year old community of 26,000 residents located 50 km east of ChNPP near Chernighev. The City is mapped in the "Contaminated Zone".
- The population includes ChNPP workers, municipal and service enterprise workers, some new "private" enterprise workers, evacues and retirees from ChNPP and their families. Only 1,700 residents are over 55 years old. **More than 9,000 are under 18 years old.**

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

FINDINGS (cont.)

- The city administration is enthusiastic and professional. In 1995, Slavutich was reported to be the only city in Ukraine with a "revenue surplus".
- There are some 30 "joint stock companies" or private enterprises registered in Slavutich. Currently they employ only a small percentage of the population and are often dependent on ChNPP for sales.
- **Communal and social assets -kindergartens, housing, cultural centers, utilities, and health care, etc.- are provided by ChNPP.** The city administration is concerned that transfer of these assets without resources will result in a lower standard of living. They are anxious to "attract" or "grow" new enterprises.

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

FINDINGS (cont.)

The Interim Action Plan recommendations addressing social asset transfer and local economic development, seemingly non-controversial anywhere else in the world, pose a unique problem for Slavutich and Ukraine:

The policy of the Ukrainian government is, and has been, to remove populations from territories that have been contaminated with long-lived radioactive waste. Ukraine's economic problems have prevented them from meeting their resettlement goals since 1992. Slavutich is a completely new town, built in 1988 to house ChNPP workers in a safe yet convenient location 50km east of the plant. It is located in the "Guaranteed Voluntary Resettlement Zone" (also known as the "Contaminated Zone"). Although the city itself has been decontaminated to pre-accident levels, its location in this zone poses an issue for its future. Today, more than 2.4 million people reside in this area subject to eventual resettlement. Should the 26,000 residents of Slavutich be gradually relocated as ChNPP closes? Or should the city try to diversify its economic base and serve as a model for a sustainable, safe community in the zone?

- The activity related to implementing the G-7 MOU projects will significantly affect this outcome.

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

ACTIONS NEEDED FROM G-7 AND GOVERNMENT OF UKRAINE

- Receive immediate feedback from G-7 and Government of Ukraine on key issues, such as timing and employment potential of MOU projects; the policy on Slavutich and views on conditionality of grants and loans to benefit affected workers.
- Agree on level of detail and schedule of work for Joint Working Group to complete the Action Plan. This task needs to be led by Ukrainians with concurrence from US and EU.
- Set deadline for completion of the Action Plan and presentation to Government of Ukraine and other parties. (The current timetable is October 31st. The EU will propose December 31, 1996.)

CHORNOBYL NPP CLOSURE SOCIAL IMPACT PLAN

- Potential voluntary donor assisted projects to help minimize the social impact of Chornobyl closure include:
 - ▶ Marketing and enterprise development for small and medium business
 - ▶ Entrepreneur training in business management, finance & marketing
 - ▶ Joint venture and Microenterprise credit programs
 - ▶ Employee and family counseling and social interventions
 - ▶ Housing and social / communal asset privatization



Joint EU - US working group for
social impact of Chernobyl closure
Inception report
April 1996

Joint EU - US working group for social
impact of Chernobyl closure

Inception Report

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Annexes:

- A. Terms of Reference
- B. Contract
- C. Mission Reports

1. Project synopsis

1.1 Overall objective

Implementation of the Ukrainian - G7 Agreement to close Chernobyl Nuclear Power Plant with due consideration for Ukrainian energy requirements, safety during the decommissioning phase and the social implications for those affected by its closure.

1.2 Immediate objective

Through the establishment of a working group consisting of representatives of the various interested parties in the Ukraine and appropriate experts from the G7 (EU and the U.S.), elaborate:

- (a) a programme aimed at alleviating the major social consequences of closing Chernobyl Nuclear Power Plant; and
- (b) an appropriate structure to administer the initiatives contained in the "closure package"

1.3 Project outputs

1.3.1 The main outputs of the project will be:

- (a) An Action Plan to alleviate the major social consequences of closing Chernobyl NPP; and
- (b) A core team of local experts trained to both elaborate and implement the Action Plan.

1.3.2 The subsidiary outputs to achieve the main outputs will be;

To main output (a)

- (i) Reports based on research and analysis in the following areas:
 - Population survey of Slavutich
 - Survey of CNPP workforce
 - Analysis of existing compensation mechanisms
 - Economic activity surveys
 - Research into environmental status of Slavutich region
 - Labour mobility survey

To main output (b)

- (i) 12 local experts trained in the elaboration and implementation of the plan;
- (ii) 40 additional local experts provided with an understanding of the main points of the Action Plan and the "modus operandi" for its implementation;
- (iii) A pilot information campaign to inform the population of Slavutich and the workers of CNPP of the points of the Action Plan and how it will affect them.

1.4 Activities

The main activities of the project are:

- (a) Research and surveys
- (b) Training through:
 - (i) workshops
 - (ii) training abroad
- (c) Elaboration of information campaigns
- (d) The elaboration of the Action Plan to address the major social consequences of closing Chernobyl NPP

1.5 Target groups

The target groups are:

- (a) Officials from relevant central Government ministries;
- (b) The authorities of Slavutich;
- (c) The management of Chernobyl NPP; and
- (d) Workers' representatives at Chernobyl NPP.

2. Analysis of project

2.1 Key issues - overview

The project is a joint EU-Ukraine-US venture. The project was initiated in response to a request by the Ukrainian to the G7, during the negotiation of the Memorandum of Understanding concerning the closure of Chernobyl NPP, that the social impact of closure be addressed.

In order to maintain political pressure upon the Ukrainian Government to sign the Memorandum of Understanding concerning the closure of CNPP, the project commenced prior to the signing of the Memorandum on 19 December 1996. Moreover, for the same political reasons, the project commenced prior its endorsement from the Ukrainian Government. The endorsement is still forthcoming but is expected by late March early April.

During the inception period, it has emerged that there is a possibility of between 1,000 and 1,500 workers being made redundant during the course of 1996. If mechanisms are not in place to address this imminent mass lay-offs a situation could arise which may have repercussions on the overall Ukrainian - G7 Memorandum i.e. an excuse to postpone the closure date.

There are no clear indications of funding of elements of the Action Plan other than the proposed activities included in other components of the G7 - Ukraine Memorandum of Understanding.

2.2 Key issues - implication for the project

The need to apply political pressure to secure endorsement of the Joint TOR, particularly during the last three months of 1995, resulted in project resources being utilised for non direct project activities. In effect, the activities undertaken in 1995 could be regarded as those normally undertaken to elaborate a project terms of reference. Moreover, in order to maintain the political pressure the entire EU Team undertook joint missions during this period.

Despite the strong political "over-tones" of the project it has been possible to undertake a number of significant activities. In particular, the securing of participation of the management of CNPP and the authorities of Slavutich should be mentioned. It is unlikely that without their support endorsement at Central Government level will be secured. However, this support cannot be fully measured until endorsement is secured.

The methodology adopted for the project has been one of achieving dialogue and consensus between the interested parties in order to find solutions to a common problem rather than placing emphasis upon resolving a conflict of interests. This approach has been adopted to "tone down" the political nature of the project. This approach has at times required explanation at various stages of the inception phase.

The combined factors of unknown quantities of funding for the Action Plan and the imminent risk of more than one thousand workers being laid off from CNPP during the course of 1996 have emphasised the need for the approach outlined in 2.2.3.. This approach was also envisaged in the EU TACIS TOR and in the Organisation and Method of the project proposal. Significant emphasis has been placed upon a "bottom-up, help to self help". A slight deviation from the Organisation and Method is the proposal to place emphasis upon developing a core team of local experts who will not only be actively involved in the elaboration of the Action Plan but also its implementation. This requires that the original number of workshops be increased, that specific topics are dealt with to supplement the local understanding of how the Action Plan should be elaborated and implemented. Furthermore, the proposed study tours have been changed to training at the ILO Turin Centre. The latter location was selected to maintain a neutral atmosphere for the training, during which period the outline Action Plan will be prepared.

In line with the concept of "help to self help" the issue of diversifying (and of reconversion, included in the TACIS TOR) the local economy of the Slavutich Region have also been addressed. The sustainable economic and employment development of the Region is a concern of the management of CNPP and the authorities of

Slavutich. Although not confirmed, it would appear to be a concern of the Government. Moreover, the stimulation of economic regeneration of the Region was also stated, in a reply to the European Parliament by Commissioner Sir Leon Brittan¹, as an objective of TACIS assistance to the affected (by Chernobyl Accident) territories. This issue has raised some conflict with the US partners. From a safety point of view during the de-commissioning phase this would appear to be an appropriate approach. However, during the course of the project, efforts will be made to examine existing documentation relating to levels of contamination. To this end it is proposed that a member of the EU team attends the IAEA-EU Conference on the issue during the period 8-12 April 1996.

2.3 Involvement of central government

Prior to the signing of the G7 - Ukraine Memorandum of Understanding, participation of Central Government in the project activities was limited for obvious reasons. Despite this, members of the RADA and a member of the Council of Ministers attended a workshop held between 12-14 December in Zeleny Mys. Since the signing of the Memorandum of Understanding a Presidential Committee on Chernobyl Issues has been established. The project will work closely with this Committee and proposes that the Committee nominates persons to be members of the local core team to be trained in elaborating and implementing the Action Plan.

2.4 Major concerns

The imminent lay-off of substantial numbers of the CNPP work-force during 1996 is of major concern. The sense of urgency in having appropriate measures in place to deal with this situation must be stressed. There is no doubt that a situation in which these do not exist will be exploited to delay closure of CNPP. Public statements by the management of CNPP advocating closure after the normal life-cycle of the Plant serve to highlight the negotiating strategies that may be evolving. Naturally, the delay in non-endorsement can always be used as an excuse for measures not being in place. However, the project is attempting, within the political constraints, to continue the survey and analysis work in order to have adequate material to commence work in earnest once the Joint EU-Ukraine-US TOR has been endorsed.

1. Official Journal of the European Communities C24/16 30.1.95. Written reply by Sir Leon Britten to question by Christine Crawley (PSE).

3. Project planning

Project planning has been undertaken on the basis of a workshop conducted between 12 - 14 December 1995 in Zeleny Mys and a further workshop in January 1996. A draft inception report was then prepared in the format of Forms 1.5 - 1.6. and were further discussed during a mission to Kiev in February 1996. In particular those elements of the project where inputs from the TACIS Employment Services Project are expected were coordinated. It must be stressed that the planning has been based upon those issues addressed at the workshop that have to be undertaken at the CNPP and Slavutich. In addition, those aspects that have to be addressed at a macro level, e.g. compensation systems have also been included. All of the activities, with certain changes of emphasis, correspond to the EU TACIS TOR and elements of the Joint EU-Ukraine-US TOR. However, given that an endorsement is as yet not forthcoming, there may have to be additional changes to accommodate any requests that the Ukrainian Government may have.

Project planning has taken into account the issues raised in section 2 above. Namely, that there is an urgent need to address the possibility of a substantial number of workers being laid-off during 1996. Moreover, as there is no clear indication at this stage of the scale of funding that may be available to address this problem, emphasis has been placed upon a "bottom up, help-to-self-help" approach. This implies that whereas the original EU TACIS TOR envisaged a local team to be actively involved in elaborating the Action Plan, the planning now takes into account the need to develop a core local team to implement the plan. Therefore, the number of workshops has been increased. These workshops will not only deal with specific project progress issues, as originally envisaged in the TOR, but also, training in specific topics. In addition, the original planned study tour component has been changed to a training programme to be located at the ILO International Training Centre in Turin. The rationale in choosing the ILO/ITC was based on a need to provide a neutral atmosphere for the training to be undertaken. The major output of the training programme will be an outline Action Plan. In addition to the "core team" being trained, it is planned that the final version of the Action Plan will be presented to a larger group, approximately 40, who will be directly or indirectly involved in the implementation of elements of the Plan.

To facilitate easier reading, the remainder of this project planning section is cross-referenced with forms 1.4 to 1.6. of the Annexes.

Forms 1.5 Overall Output Performance

1. Co-ordination with all interested parties.

Given the relative "political high profile" of this project co-ordination and information flow between all the interested parties is essential. As the project progresses this work is expected to be of significant importance to ensure that all parties are in agreement as to the manner in which the Action Plan will be elaborated. Given the nature of the project, and in particular its inter-action with the G7, a constant information flow is essential to ensure that any proposals elaborated in the Action Plan do not go beyond those envisaged by G7. During the initial phases of the project, because of its complex structure, it has emerged that the resolution of differences of perception and understanding of the issues and concepts. In order to facilitate a better on-going exchange of information, particularly between the western partners, an e-mail internet private conference will be established.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R. Short	15				38*			
TOTAL	15				38			

* Included activities now embrace 3.4.

1.1 - 1.4 Steering Committee meetings

An essential mechanism for ensuring effective dissemination of information is through a project steering committee. Such a mechanism was stipulated in the EU TACIS TOR. Due to the non endorsement of the Joint TOR, it has not as yet been possible to establish the steering committee. However, during the period 25 - 29 March mission, meetings will be held with members of the Presidential Committee established to address Chernobyl Issues in relation to G7. Four meetings of the steering committee are planned during the course of the project. Members of the steering committee will be encouraged to provide comments to the Action Plan during the various stages of its elaboration.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R. Short		6	*	8	8	8	*	8
D. Johnson		6	*	8	4	8	*	8
TOTAL		12		16	12	16		16

* Steering committee meetings will be held after workshops. Air travel charged to 9.0.

1.5 Newsletters

Newsletters are planned for distribution to:

- (a) G7 members
- (b) Relevant Government Ministries
- (c) the population of Slavutich and CNPP workers

These newsletters will inform of project progress and other issues that have a direct relevance to the project.

To date one newsletter has been prepared for distribution to G7 members. A second newsletter is under preparation and will be distributed after reporting on the 25 - 29 March mission to the Ukraine.

A total of seven newsletters are planned.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	Per diem
R. Short	7							
J. Kastberg	7							
TOTAL	14							

1.6 - 1.7 Co-ordination and briefing meetings

The original Organisation and Methods anticipated briefing meetings in Brussels. During the inception period that considerable emphasis will have to be given to the employment possibilities that will arise from other components of the G7 - Ukraine Memorandum of Understanding. This will entail attendance at G7 donor meetings (dates and location yet to be decided) and with contractors already engaged in feasibility studies or project planning contracts in relation to the G7 Memorandum.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	Per diem
R. Short	20	3	10 EU internal	20 EU 3 Ukr	20		9	14
TOTAL	20	3			20			

2. Human Resources

2.1 Report on human resource potential

A survey of the population of Slavutich is to be conducted by the TACIS Employment Project. Similarly, a survey of the CNPP workforce is to be undertaken.

Inputs

Provision for these inputs within the framework of the TACIS Employment Services Project were contained in the EU TACIS TOR for this project.

2.2.- 2.6. Report on re-training needs and set of recommendations

The report on the re-training needs will be based upon the reports prepared under 2.1. and analyses of potential employment opportunities to be undertaken under 3.2. & 3.4. below. In addition an examination of other relevant surveys, such as those that have been conducted by UNESCO, will be undertaken. Finally, an analysis of existing legislation relating compensation packages will be undertaken. The results will be presented at a workshop for consideration. The final report, which will be incorporated into the Action Plan, will contain project TORs for re-training programmes.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	Per diem
R. Short	5							
D. Johnson (2.3.)	2	6	1	6				
TOTAL	7	6	1	6				

3. Economic activity

3.1 - 3.2 Report on existing economic activity and potential development

The economy of the Slavutich Region is dominated by CNPP. There is a need to diversify and re-convert the economy of the region for a number of reasons. There is a need to sustain the local economy and employment prospects to prevent mass migration. Such migration could have implications for safety at CNPP during the de-commissioning phase. Furthermore, social problems are already emerging as high numbers of youth unemployment already exist in addition to high female unemployment.

In addition to those employment opportunities that may exist in relation to G7 initiatives within 3.4. below, there is a potential for employment growth in the service sector related to these initiatives. A study will be undertaken to quantify this potential.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R. Short	5	2		2	Global			
D. Johnson	4			4	ditto			
TOTAL	9	2		6				

3.3 Report on legislation concerning investment and development of the region

Initiatives to stimulate economic diversity of the Slavutich Region could be restricted as a result of the inadequate legislative enabling environment. A report on such legislation, based on EU, World Bank and reports from similar agencies will be prepared.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R. Short	4				Global			
D. Johnson	12	2		2	Global			
TOTAL	16	2						

3.4 Report on local and international investment sources

The implementation of the other components of the G7 Memorandum will undoubtedly generate not only employment but also inward investment in such areas as energy efficiency projects. Moreover, it is understood that bi-lateral donors are considering the establishment of a research centre to deal with energy issues and nuclear safety. Furthermore, a number of local actors are said to be considering investment in high-tech production projects in the region. The purpose of this survey will be to determine the extent to which these potential initiatives will be realised and the extent to which they may contribute to offering alternative employment.

Balanced against the need for sustainable economic and employment development of the region in immediate future to secure safe de-commissioning are environmental contamination questions. The project will analyze reports that have been conducted by various agencies since the 1996 Accident. To this end it is suggested that a member of the project team, Jens Kastberg, attends the IAEA-EU conference in Vienna (8-12 April) that will deal with this issue.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R. Short	10	2		2	Global			
D. Johnson	10	2		2	ditto			
J. Kastberg	4		1 EU internal	2 CPH	ditto			
TOTAL	24	4	1	2	3			

3.5 - 3.6 Report concerning existing enterprise support services

It is understood that some 100 embryonic small enterprises exist. These could contribute the economic diversification of the Region. However, no enterprise service structure exists (although TACIS is considering a business development centre). The project will seek, on the basis of an analyses of enterprises, the type of services that may be required. This will include a feasibility study for the pilot economic support activities to enterprises.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R. Short	8	2			Global			
TOTAL	8	2						

3.7 Presentation of main findings

The main findings of the studies relating to economic activity will be presented at a steering committee meeting. Based upon comments of the steering committee the recommendations and outline projects will be incorporated into the Action Plan.

4. Analysis of existing compensation mechanisms

An analysis of existing compensation packages will be undertaken. This will be undertaken by the US contractor. On the basis of this analysis, an appropriate compensation package will be elaborated. In particular the issue of ensuring that key staff remain during the de-commissioning phase of CNPP will be addressed.

5. Information campaigns

The EU TACIS TOR recognised the need to develop mechanisms to inform the workers of CNPP and the population of Slavutich of the consequences of closure and, more specifically, how the Action Plan will affect them. It is intended that once endorsement of the Joint Project is forthcoming, the Slavutich closed circuit TV system will also be used. In view of the imminent lay-off of CNPP workers, an information package will also be prepared. This scope of this particular element differs from the Organisation and Method in that it proposes to be more operational than originally proposed.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
J. Kastberg	24	15	2	15	22	20	2	20
R.Short	4				5			
TOTAL	28	15	2	15	27	20	2	20

6. Transfer of Communal Services from CNPP

By the very nature of Slavutich being a one industry town still operating virtually under the centrally planned system, all social assets and services are managed by CNPP. The de-commissioning of the Plant and its eventual closure combined with the macro-economic reforms of the Ukraine will result in these assets and services being transferred to central or local authorities. Currently, the level of services, in particular social amenities are of a high standard. The consequences of diminishing CNPP support and how services can be transferred will be examined. Recommendations for the transfer of services and assets will be presented to the steering committee for their approval and inclusion in the Action Plan.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R.Short	5				Global			
D.Johnson	2	2						
TOTAL	7	2						

7. Labour mobility survey

The issue of labour mobility was raised at the December 1995 workshop. A factor that acts as a dis-incentive to labour mobility are the higher salaries paid to workers in the contaminated areas. New employment opportunities within the region in other industries may not attract as high salaries. Desk top research of comparative salaries and other social benefits of potential employment sources within and outside the region will be conducted.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R.Short	2				global			
D.Johnson	6	2						
TOTAL	8	2						

8. Psychological attitudes survey

Similar to 7.0., this issue was raised at the December workshop. It is also closely linked to the question of labour mobility and perceptions of comparative living standards with other regions of the Ukraine. On the basis of surveys conducted under 2.0. and other similar surveys conducted by TACIS and other agencies, the project will determine the importance of the psychological attitudes issue and how they can be addressed in the Action Plan.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R.Short	1				Global			
D.Johnson	3	1						
TOTAL	4	1						

9. Development of core team to elaborate and implement the Action Plan

As mention in the introduction to this section, the combination of imminent large scale lay-offs and limited funding resources will require that local resources are developed to implement the Action Plan. This component differs from the original Organisation and Methods in that considerable additional emphasis is placed on training. This includes the development of training materials for each workshop and an extensive training programme to be conducted at the ILO international training Centre. The culmination of the training will be the elaboration of an outline Action Plan.

Furthermore, during the initial phases of the project it has been normal for the entire EU team to be involved in the majority of missions to the Ukraine, particularly the first workshop and the planning meetings. At the time this was seen as being politically expedient to ensure that the local parties were aware of the seriousness of the intentions of the EU - US team. A team approach is now expected at the local level. However, preparation of materials prior to the workshops remain the responsibility of the team leader.

Another important element of developing the local core team is the need to provide materials on subjects that fall within the scope of this project. The extent and volume of this need was not foreseen in the original Organisation and Methods.

Whilst the Organisation and Method envisaged considerable local input in the elaboration of the Action Plan, it has become clear during the inception phase that there is a lack of understanding of basic concepts. Therefore, the approach proposed is one of more hands-on and of developing the skills to implement the Action Plan with limited outside support. The training programme at the ILO will include the inputs of ILO experts in specific labour market and social issues. In addition the programme will include a parallel component dealing with local economic development and SME support structures.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.*	per diem	EU days	Ukr days	Air Trav	Ukr days
R.Short	35	18	6 + (a)	18 ukr 20 Turin	Global			
D.Johnson	5	18	6 + (b)	18 Ukr 6 Turin				
J. Kastberg	5	18	6 + 1	18 Ukr 6 Turin				
TOTAL	55	54						

* Return EU - Ukraine (David Johnson 1 Brussels - Turin)

(a) 5 return road trips Geneva Turin 2,800 kms

(b) 1 return road trip Geneva - Turin 560 kms

10. Elaboration of the Action Plan

The finalisation of the Action Plan will take place after the training programme at the ILO Turin Centre. The Plan will be presented to the Steering Committee for their consideration. Once their comments have been incorporated into the Plan, a seminar will be held to present the Plan to those local actors (Government, CNPP, Slavutich) who will be directly and indirectly involved in the implementation of the Plan. Upon submission of the Action Plan to the Government only minimum involvement of the Contractor is anticipated during the negotiation process.

Inputs

Resource	Revised		Revised		Original		Original	
	EU days	Ukr days	Air Trav.	per diem	EU days	Ukr days	Air Trav	per diem
R.Short	10	5	1 EU - Ukr 1 EU internal	Brxl 3 Kiev 5	Global			
D.Johnson	10	5	1 eu - Ukr	Kiev 5				
J. Kastberg	5							
TOTAL	25	10			44			

Forms 1.4 to 1.6

FORM I.4. OVERALL PLAN OF OPERATIONS

Project Title: Social Impact of closing Chernobyl NPP			Project Number: UK9401/0101/B003					Country: Ukraine		Page: I.4. No 1		
Planning Period : 1 January - 31 July 1996			Prepared on: 1 February 1996					EC Consultant: European Framework Group				
Project Objectives : Development of Action Plan to address the social consequences of closing Chernobyl Nuclear Power Plant (CNPP)												
No	MAIN ACTIVITIES	TIME FRAME							INPUTS			
		January - July 1996							Personnel		Equi/Material	Other
		Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local W/M		
1	Co-ordination with all interested parties (G7 - Ministries and State Committees, Slavutich and CNPP)	xx	xx	xx	xx	xx	xx	xx	64			Travel
2.	Human Resource Survey		xxxx	xxxx					13	2	Trans+printing	
3.	Economic Activity Survey	x	xxxx						47	4		Travel
4.	Analyses of existing compensation mechanisms			xxxx	xxxx				4		Trans+printing	Travel
5.	Information campaigns		xx	xx		xxx	xxx		43	4		
6.	Analyses of transfer of communal services from CNPP to Slavutich		xx	xxx					9	1	Trans+printing	Travel
7.	Labour Mobility Survey			xxxx					10	1	Trans+printing	Travel
8.	Psychological attitudes survey			xxxx	x				4		Trans+printing	Travel
9.	Development of core team to elaborate and implement Action Plan			xx	xxxx	xxxx	xx		109	3,5		
10.	Elaboration of Action Plan					xxx	xxx		35	2	Trans+printing	
11.	Presentation and negotiation of Action Plan							xxxx	5	0,5		
	TOTAL											

FORM 1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social Impact of closing Chernobyl NPP		Project Number: UK9401/0101/B003		Country: Ukraine	Page 1.5. No 1																																		
Planning period 1 January - 31 July 1996		Prepared on : 1 February 1996		EC Consultant: European Framework Group																																			
Outputs and Target Dates		Agreed Objectives Verifiable Indicators		Constraints and Assumptions																																			
<p>1. Co-ordination with all interested parties (G7 - Ministries and State Committees, Slavutich and CNPP)</p> <p>1.1. Steering Committee Meeting No 1 (30.3.96)</p> <p>1.2. Steering Committee Meeting No 2 (31.5.96)</p> <p>1.3. Steering Committee Meeting No 3 (14.6.96)</p> <p>1.4. Steering Committee Meeting No 4 (05.07.96)</p> <p>1.5. Newsletters</p> <table border="0"> <tr><td>(i)</td><td>22.01.96</td></tr> <tr><td>(ii)</td><td>23.02.96</td></tr> <tr><td>(iii)</td><td>31.03.96</td></tr> <tr><td>(iv)</td><td>25.04.96</td></tr> <tr><td>(v)</td><td>20.05.96</td></tr> <tr><td>(vi)</td><td>18.06.96</td></tr> <tr><td>(vii)</td><td>16.07.96</td></tr> </table> <p>1.6. Co-ordination meetings concerning employment potential related to G7 funded projects</p> <p>At least four meetings (Kiev, Brussels & U.K.)</p> <table border="0"> <tr><td>(i)</td><td>08.03.96</td></tr> <tr><td>(ii)</td><td>19.04.96</td></tr> <tr><td>(iii)</td><td>23.05.96</td></tr> <tr><td>(iv)</td><td>25.06.96</td></tr> </table> <p>1.7. Briefing and Co-ordination in Brussels</p> <table border="0"> <tr><td>(i)</td><td>26.01.96</td></tr> <tr><td>(ii)</td><td>09.02.96</td></tr> <tr><td>(iii)</td><td>04.03.96</td></tr> <tr><td>(iv)</td><td>02.04.96</td></tr> <tr><td>(v)</td><td>31.05.96</td></tr> <tr><td>(vi)</td><td>15.06.96</td></tr> </table>		(i)	22.01.96	(ii)	23.02.96	(iii)	31.03.96	(iv)	25.04.96	(v)	20.05.96	(vi)	18.06.96	(vii)	16.07.96	(i)	08.03.96	(ii)	19.04.96	(iii)	23.05.96	(iv)	25.06.96	(i)	26.01.96	(ii)	09.02.96	(iii)	04.03.96	(iv)	02.04.96	(v)	31.05.96	(vi)	15.06.96	<p>1. Co-ordination with all interested parties (G7 - Ministries and State Committees, Slavutich and CNPP)</p> <p><u>Objective</u></p> <p>Through a series of mechanisms for information dissemination, ensure the early endorsement of the Action Plan by all key interested parties.</p> <p><u>Verifiable Indicator</u></p> <p>Action Plan endorsed by Ukraine, EU and US within three months of submission.</p>		<p>1. Government endorses joint TOR</p> <p>1.1.-1.4. That steering committee is established with a broad spectrum of national and international membership.</p> <p>1.5. That local participants permit the free dissemination of information.</p> <p>1.6. That G7 members and the EU provide free access to the project team to obtain the information on planned projects.</p>	
(i)	22.01.96																																						
(ii)	23.02.96																																						
(iii)	31.03.96																																						
(iv)	25.04.96																																						
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(vi)	15.06.96																																						

FORM 1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social Impact of closing Chernobyl	Project Number : UK9401/0101/B003	Country : Ukraine	Page : 1.5. No 2
Planning period : 1 January - 31 July 1996	Prepared on : 1 February 1996	EC Consultant : European Framework Group	
Outputs and Target Dates	Agreed Objectives Verifiable Indicators	Constraints and Assumptions	
<p>2. Human Resources</p> <p>2.1. Report on human resource potential (24.4.96)</p> <p>2.2. Report on re-training needs (24.4.96)</p> <p>2.3. Report of analyses of existing legislation relating to compensatory packages (24.4.96)</p> <p>2.4. Compendium of analyses of all other relevant surveys previously conducted (24.4.95)</p> <p>2.5. Analysed data for presentation at workshop (8.5.96)</p> <p>2.6. Set of recommendations. (14.6.96)</p>	<p>2. Human Resources</p> <p><u>Objective</u></p> <p>Through analyses and consultation with the steering committee and interested parties, in particular the Ministry of labour, prepare a set of recommendations concerning the workforce of CNPP and the population of Slavutich Region.</p> <p><u>Verifiable Indicators</u></p> <p>(a) The interested parties accept the contents of the reports and recommendations contained therein.</p>	<p>(a) CNPP and the Authorities of Slavutich facilitate access to undertake comprehensive surveys.</p>	

FORM 1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social Impact of closing Chernobyl NPP		Project Number : UK9401/0101/B003		Country : Ukraine	Page: 1.5. No 3
Planning period : 1 January - 31 July 1996		Prepared on : 1 February 1996		EC Consultant : European Framework Group	
Outputs and Target Dates		Agreed Objectives Verifiable Indicators		Constraints and Assumptions	
<p>3. Economic Activity</p> <p>3.1. Report on existing economic activity in Slavutich Region (24.04.96)</p> <p>3.2. Report on potential economic development including services related to the implementation of the other components of the G7 Memorandum. (30.04.96)</p> <p>3.3. Report on legislation concerning investment and development of the region (30.04.96)</p> <p>3.4. Report on local and international investment sources and potential including activities related to the other components of the G7 Memorandum and bilateral Initiatives in the Region (30.04.96).</p> <p>3.5. Report concerning existing enterprise support services (24.04.96)</p> <p>3.6. Feasibility report for pilot economic support activities to enterprises in the region (30.04.96)</p> <p>3.7. Workshop to present main findings (30.06.96)</p>		<p>3. Economic Activity</p> <p><u>Objective</u></p> <p>Through analyses and consultation with the steering committee and interested parties prepare a set of recommendations on how to develop and diversify the economic activity in the Slavutich Region.</p> <p><u>Verifiable Indicators</u></p> <p>Social and economic cost benefit analysis relating to the sustainable employment and economic development of the Slavutich Region.</p>		<p>1. That the Government desires such a report and facilitates active collaboration of key personnel concerned Ukraine with legislation.</p> <p>2. That the EU and US acknowledges the benefits of sustainable employment development in the Slavutich Region.</p>	

FORM I.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social impact of closing Chernobyl NPP	Project Number : UK9401/0101/B003	Country: Ukraine	Page: I.5. No 4
Planning period : 1 January - 31 July 1996	Prepared on : 1 February 1996	EC Consultant : European framework Group	
Outputs and Target Dates	Agreed Objectives Verifiable Indicators	Constraints and Assumptions	
<p>4. Analyses of existing compensation mechanisms</p> <p>4.1. Combined report of current Ukrainian legislation and compensation relating to, among others: redundancy; early retirement; re-training; and re-location. (31.05.96).</p> <p>4.2. Social cost plan (31.05.96).</p> <p>4.3. Compensation package for key workers to be retained for de-commissioning. (31.05.96).</p>	<p>4. Analyses of existing compensation packages</p> <p><u>Objective</u></p> <p>To enable the Government of Ukraine elaborate an appropriate compensation package for CNPP workers, that will take into account the economic realities of the country (i.e. no special package that will create a precedence for other sectors)</p> <p><u>Verifiable indicator</u></p> <p>Compensation plan agreed by Government.</p>	<p>1. That the Government accepts the fact that the compensation package to be elaborated is to be confined to those who will be directly affected by the closure of Chernobyl NPP (i.e. the workers and their families).</p>	

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FORM 1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social impact of closing Chernobyl NPP		Project Number: UK9401/0101/B003		Country Ukraine	Page : 1.5. No 5
Planning period : 1 January - 31 July 1996		Prepared on : 1 February 1996		EC Consultant : European Framework Group	
Outputs and Target Dates		Agreed Objectives Verifiable Indicators		Constraints and Assumptions	
<p>5. Information campaigns</p> <p>5.1. Report and documentation on the key issues for presentation at workshop (28.03.96)</p> <p>5.2. Agreement upon recommendations (28.03.96)</p> <p>5.3. Preliminary information campaign for population of Slavutich and workers of CNPP. (31.05.96)</p> <p>5.4. Plan for continued information campaign during the implementation of the Action Plan.(30.06.96)</p> <p>5.5. Information package concerning Action Plan targeted at CNPP workers and the population of Slavutich (31.05.96)</p> <p>5.6. Information package concerning Action Plan targeted at G7 members (31.07.96)</p>		<p>5. Information campaigns</p> <p><u>Objective</u></p> <p>Through analyses and consultation with the steering committee and interested parties prepare a set of recommendations concerning public relations and information dissemination to the population of the Slavutich Region, nationally and where appropriate internationally.</p> <p><u>Verifiable indicators</u></p> <p>(a) Population of Slavutich and the workers of CNPP fully informed of proposals for the Action Plan and what it will mean for them. Measurable by increased public debate and requests for information and advice.</p>		<p>(a) The management of CNPP permits openness in the debate surrounding the closure of the Plant and for workers to be fully informed;</p> <p>(b) The authorities of Slavutich permit full public debate concerning the closure of the CNPP and the implications for the population of the city.</p> <p>(c) Free flow of information is permitted</p>	

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FORM 1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social impact of closing Chernobyl NPP		Project Number: UK9401/0101/B003		Country : Ukraine		Page: 1.5. No 6	
Planning period : 1 January - 31 July 1996		Prepared on : 1 February 1996		EC Consultant : European Framework Group			
Outputs and Target Dates		Agreed Objectives Verifiable Indicators		Constraints and Assumptions			
6. Transfer of Communal Services 6.1. Report on the analyses of the scope of services provided respectively by CNPP and Slavutich (24.04.96) 6.2. Recommendations of alternative mechanisms to effect transfer of selected services and assets from CNPP to local authorities (24.04.96) 6.3. Workshop to present results and recommendations. 6.4. Final draft of recommendations prepared for inclusion in the Action Plan (31.05.96)		6. Transfer of Communal Services <u>Objective</u> Through analyses and consultation with the work group and interested parties prepare a set of recommendations concerning the potential transfer of and mechanisms to transfer services from CNPP to the local administration. <u>Verifiable Indicators</u> Recommendations approved by CNPP, Slavutich and relevant Government Ministries.		(a) There is active co-operation between the actors at the local level and the appropriate Government Ministries. (b) The process of transfer does not deviate from current Ukrainian policy.			

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FORM 1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social impact of closing Chernobyl NPP	Project Number : UK9401/0101/B003	Country : Ukraine	Page 1.5. No 7
Planning period : 1 January - 31 July 1996	Prepared on : 1 February 1996	EC Consultant : European Framework Group	
Outputs and Target Dates	Agreed Objectives Verifiable Indicators	Constraints and Assumptions	
<p>7. Labour Mobility</p> <p>7.1. Comparative analyses of the level of services and living standards enjoyed by the population of Slavutich, workers at CNPP and selected other locations in the Ukraine.</p> <p>7.2. Report concerning employment information services in Slavutich Region</p> <p>7.3. Assessment report of the potential risks of labour migration from the safety and economic activity aspects</p> <p>7.4. Determine the levels of projected labour re-structuring at CNPP and elements that relate to social protection.</p> <p>7.5. Presentation workshop</p> <p>7.6. Recommendations for inclusion in action plan.</p>	<p>7. Labour Mobility</p> <p><u>Objective</u></p> <p>Through analyses and consultation with the work group and interested parties prepare a set of recommendations concerning the issues of labour mobility.</p> <p><u>Verifiable Indicators</u></p> <p>Report on findings accepted by steering committee.</p>	<p>1. That the interested parties, at local and Governmental level, facilitate access to the project team to all the necessary information.</p>	

FORM 1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social Impact of closing Chernobyl NPP	Project Number : UK9401/0101/B003	Country : Ukraine	Page : 1.5. No 8
Planning period : 1 January - 31 July 1996	Prepared on : 1 February 1996	EC Consultant : European Framework Group	
Outputs and Target Dates	Agreed Objectives Verifiable Indicators	Constraints and Assumptions	
<p>8. Psychological attitudes</p> <p>8.1 Report on attitudinal survey of workers of CNPP and the population of the Slavutich Region.</p> <p>8.2 Set of recommendations for presentation at workshop</p> <p>8.3 Recommendations adapted for inclusion in Action Plan</p>	<p>8. Psychological attitudes.</p> <p><u>Objective</u></p> <p>Through analyses and consultation with the work group and interested parties prepare a set of recommendations on how to address the psychological issue of the population of the Region.</p> <p><u>Verifiable Indicators</u></p> <p>Report and recommendations agreed by steering committee</p>	<p>1. CNPP and Slavutich authorities permit project team access to workers and population in order to conduct the survey.</p>	

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FORM 1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social impact of closing Chernobyl NPP	Project Number : UK9401/0101/B003	Country : Ukraine	Page: 1.5. No 9
Planning period : 1 January - 31 July 1996	Prepared on : 1 February 1996	EC Consultant : European Framework Group	
Outputs and Target Dates	Agreed Objectives Verifiable Indicators	Constraints and Assumptions	
<p>9. Establishment of core team of local experts to elaborate and implement the Action Plan</p> <p>Workshops conducted</p> <p>9.1. Planning 19.01.96</p> <p>9.2. Small scale industry Legislative environment</p> <p>9.3. Reorientation of Labour market 30.03.96</p> <p>9.4. Project planning, feasibility studies, Regional development, human resource management, Initial discussion on the preparation of Action Plan. 15.05.96</p> <p>9.5. Development of local consulting capacity, preparation of the Action Plan 15.06.96</p> <p>9.6. Presentation of the Action Plan and 40 additional officials and experts who will be involved in the implementation of the Action Plan given preliminary training. 13.07.96</p> <p><u>Training abroad</u></p> <p>9.7. Ten local experts (local authority, Government and CNPP officials) through an action learning programme abroad, capable of providing inputs to elaborate the Action Plan and to train others and provide advice in its implementation. 17.05.96</p>	<p>9. Establishment of core team of local experts to elaborate and implement the Action Plan.</p> <p><u>Objective</u></p> <p>Through a series of workshops and training abroad, develop a core team of experts to jointly with the EU and US elaborate the Action Plan.</p> <p><u>Verifiable indicators</u></p> <p>Upon the acceptance of the Action Plan the local expert team will be capable of implementing its main components.</p>	<p>1. Appropriate staff at local and central Government level are made available to participate in the training.</p> <p>2. Adequate funding is made available by the EU and US for training abroad.</p>	

1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social impact of closing Chernobyl		Project Number : UK9401/0101/B003		Country : Ukraine	Page 1.5. No 10
Planning period : 1 January - 31 July 1996		Prepared on : 1 February 1996		EC Consultant : European Framework Group	
Outputs and Target Dates		Agreed Objectives Verifiable Indicators		Constraints and Assumptions	
10.	Elaboration of Action Plan to address the social impact of closing Chernobyl NPP	10.	Elaboration of Action Plan to address the social impact of closing Chernobyl NPP.	1.	That all surveys and reports to be incorporated into the Action Plan are completed on time.
10.1.	Preliminary syntheses of surveys undertaken and reports prepared (30.04.96)		<u>Objective</u>	2.	That there is limited conflict of interest between local level perceptions of how the main thrust of the Action Plan should evolve and those of Government.
10.2.	Outline Action Plan (prepared with participants of training programme abroad). (17.05.96)		A comprehensive Action Plan to address the social impact of closing Chernobyl NPP, taking into due consideration: the employment requirements of other components of the G7 - Ukraine Memorandum; local economic and employment development; compensation; and re-training.		
10.3.	First draft of Action Plan (7.06.96)		<u>Verifiable indicator</u>		
10.4.	Penultimate Action Plan (30.06.96)		Penultimate Action Plan agreed by the Steering Committee		

1.5. OVERALL OUTPUT PERFORMANCE

Project Title: Social impact of closing Chernobyl		Project Number : UK9401/0101/B003	Country : Ukraine	Page 1.5. No 11
Planning period : 1 January - 31 July 1996		Prepared on : 1 February 1996	EC Consultant : European Framework Group	
Outputs and Target Dates		Agreed Objectives Verifiable Indicators	Constraints and Assumptions	
11.	Negotiation of Action Plan to address the social impact of closing Chernobyl NPP	11. Negotiation of Action Plan to address the social impact of closing Chernobyl NPP	1. That conditionality relating to funding of the other Components of Memorandum do not influence the evaluation of the Action Plan.	
11.1.	Edited version of Penultimate Action Plan agreed by the Steering Committee (19.07.96)	<u>Objective</u> An Action Plan agreed upon by the Ukrainian Government and G7 as conforming with the Memorandum.	2. That there are differences in perception at different levels of Government as to what the Action Plan should contain.	
11.2.	Distribution of Action Plan to Government and G7 (26.07.96)	<u>Verifiable indicator</u> Action Plan signed by the Ukrainian Government and G7.		
11.3.	Agreement between the Government and G7 concerning the Action Plan to address the social impact of closing Chernobyl NPP (30.09.96)* * To be undertaken at a political level. The Contractors are not expected to be involved in these negotiations.			

FORM 1.6. PLAN OF OPERATIONS FOR THE NEXT PERIOD

Project Title: Social impact of closing CNPP	Project number: UK9401/0101/B003	Country: Ukraine	Page: 1.6. No 1
Planning Period: 1 January - 31 July 1996	Prepared on:	EC Consultant: European Framework Group	

Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP

No	MAIN ACTIVITIES	TIME FRAME							INPUTS			
		January - July 1996							Personnel		Equipment and Material	Other
		Jan	Feb	Mar	Apr	May	Jun	Jul	EC	Local		Travel
1.	Co-ordination											
1.1.	Co-ordination with TACIS	x			x	xx	xx	xxx				Travel
	Co-ordination with Ukrainian Govt		x	x	x		xx	xx	Total			Brussels
	Co-ordination with G7		x			x	x	xx	64			Parisx
	Team co-ordination (EU _ UKR_US)	x	x	x	xx	xx	xx	xxx	4			Kievx1
									9			

FORM 1.6. PLAN OF OPERATIONS FOR THE NEXT PERIOD

Project Title: Social impact of closing Chernoby NPP		Project Number: UK9401/0101/B003			Country: Ukraine		Page: 1.6. No 2					
Planning Period: 1 January - 31 July 1996		Prepared on: 1 February 1996			EC Consultant: European Framework Group							
Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP												
No	MAIN ACTIVITIES	TIME FRAME							INPUTS			
		January - July 1996							Personnel	Equipment and Material	Other	
		Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local w/m		
2.	HUMAN RESOURCE SURVEY											
2.1.	Labour Market											
	2.1.1. Design survey								BBC			
	2.1.2. Conduct pilot survey	xx	xx						BBC			
	2.1.3. Adjust and approve final version		xx	xx	xx				BBC			
	2.1.4. Conduct survey				xx				BBC			
	2.1.5. Analyse results								BBC			
	2.1.6. Prepare report					x						
	2.1.7. Incorporate into Action Plan						xx	x	4			
2.2.	Survey of CNPP workers	x										
	2.2.1. Design survey								BBC			
	2.2.2. Approve final version		x	xx					BBC			
	2.2.3. Conduct survey			xx								
	2.2.4. Analyse results			x	x							
	2.2.5. Prepare report				x							
	2.2.6. Incorporate into Action Plan								4			

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Project Title: Social Impact of closing Chernobyl NPP		Project Number:		Country:		Page: 3						
Planning Period: 1 January - 31 July 1996		Prepared on: 1 February 1996		EC Consultant:								
Project Objectives :												
No	MAIN ACTIVITIES	TIME FRAME						INPUTS				
		January - July 1996						Personnel	Equipment and Material	Other		
		Jan	Feb	Mar	Apr	May	Jun	Jul				
3.	ECONOMIC ACTIVITY SURVEYS AND RESEARCH											
3.1.	Survey of Enterprises RS+local								11		Printing	EU-Kiev x 1
	3.1.1. Design survey	---										
	3.1.2. Approve final version		---									
	3.1.3. Conduct survey			-----								
	3.1.4. Analyse results				---							
	3.1.5. Prepare report					---						
	3.1.6. Incorporate into Action Plan						-----					
3.2.	Audit of Slavutich Region RS+local								18	1 w/m	Printing	EU-Kiev x 1
	3.2.1. Design survey		---									
	3.2.2. Approve final version			---								
	3.2.3. Conduct survey			-----								
	3.2.4. Analyse results				---							
	3.2.5. Prepare report					---						
	3.2.6. Incorporate into Action Plan						-----					
3.3.	Legislative enabling environment DJ+local								8	2 w/m	Printing	EU-Kiev
	3.3.1. Prepare list of legislation required		---									
	3.3.2. Conduct research			-----								
	3.3.3. Analyse				---							
	3.3.4. Prepare report					---						
	3.3.5. Incorporate recommendations in Action Plan						-----					
	Research into environmental sustainability JK											
3.4.	3.4.1. Identify key areas				---							1 GVA - Vienna
	3.4.2. Consult with Ukrainian sources, EU, US, OECD and IAEA			-----								
	3.4.3. Conduct analyses of research				---							
	3.4.4. Prepare report					---						
	3.4.5. Incorporate findings in Action Plan						-----					
	Determine level of potential employment to be generated by other components of Memorandum continuous process								10	1 w/m		1 GVA - UK
3.5.	3.5.1. Consult with EU, US and G7 (OECD)	---	---	---	---	---	---	---				
	3.5.2. Consult with existing contractors			---	---	---	---	---				
	3.5.3. Prepare employment schedule				---	---	---	---				
	3.5.4. Determine re-training needs					---	---	---				
	3.5.5. Prepare re-training schedule						---	---				
	3.5.6. Prepare schedule of potential local enterprise participation in activities						---	---				
	3.5.7. Prepare combined report							---				
	3.5.8. Incorporate into Action Plan							-----				
									US			1 GVA - Paris

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FORM 1.6. PLAN OF OPERATIONS FOR THE NEXT PERIOD

Project Title: Social impact of closing Chernobyl NPP		Project Number:			Country:		Page: 4				
Planning Period: 1 January - 31 July 1996		Prepared on:			EC Consultant:						
Project Objectives :											
No	MAIN ACTIVITIES	TIME FRAME							INPUTS		
		January - July 1996							Personnel	Equipment and Material	Other
		Jan	Feb	Mar	Apr	May	Jun	Jul			
4.	ANALYSIS OF EXISTING LEGISLATION RELATING TO COMPENSATION										
4.1.	4.1.1. Agree upon areas of legislation to be examined.		—	—					US		
	4.1.2. Conduct research in collaboration with relevant Government Ministries			—	—	—			US		
BK	4.1.3. Prepare report with recommendations			—	—	—			US		
	4.1.4. Incorporate into Action Plan					—	—		4		

FORM 1.6. PLAN OF OPERATIONS FOR THE NEXT PERIOD

Project Title: Social Impact of closing Chernobyl NPP		Project Number:		Country:		Page: 5						
Planning Period: 1 January - 31 July 1996		Prepared on:		EC Consultant:								
Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP												
No	MAIN ACTIVITIES	TIME FRAME						INPUTS				
		January - July 1996						Personnel		Equipment and Material	Other	
5.	INFORMATION CAMPAIGNS	Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local w/m		
5.1.	5.1.1. Analyse existing forms of disseminating information. 5.1.2. Prepare a report and documentation on the key issues for presentation at workshop 5.1.3. Secure agreement upon recommendations 5.1.4. Prepare preliminary information campaign for population of Slavutich and workers of CNPP. 5.1.5. Conduct trial campaign 5.1.6. Develop plan for continued information campaign during the implementation of the Action Plan.	—		—	—	—	—		43	4	Printing Adio visual SUB-contract	3xEU-Kiev

FORM 1.6. PLAN OF OPERATIONS FOR THE NEXT PERIOD

Project Title: Social impact of closing Chernobyl NPP	Project Number: UK9401/0101/B003	Country: Ukraine	Page: 1.6. No 6
Planning Period: 1 January - 31 July 1996	Prepared on: 1 February 1996	EC Consultant: European Framework Group	

Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP

No	MAIN ACTIVITIES	TIME FRAME							INPUTS			
		January - July 1996							Personnel		Equipment and Material	Other
		Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local w/m		
6.	ANALYSES OF TRANSFER OF COMMUNAL SERVICES FROM CNPP TO SLAVUTICH											
6.1.	6.1.1. Conduct analyses of existing services provided respectively by CNPP and Slavutich.				—	—			7	1	Printing	Local transport
	6.1.2. Prepare report on the analyses and recommendations of alternative mechanisms to effect transfer of selected services and assets from CNPP to local authorities.					—					Translation	
	6.1.3. Present report to Steering Committee											
	6.1.4. Prepare final draft of recommendations for inclusion in the Action Plan						—	—				

FORM 1.6. PLAN OF OPERATIONS FOR THE NEXT PERIOD

Project Title: Social impact of closing Chernobyl NPP		Project Number: UK9401/0101/B003				Country: Ukraine		Page: 1.6. No 7				
Planning Period: 1 January - 31 July 1996		Prepared on: 1 February 1996				EC Consultant: European Framework Group						
Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP												
No	MAIN ACTIVITIES	TIME FRAME							INPUTS			
		January - July 1996							Personnel		Equipment and Material	Other
7.	LABOUR MOBILITY SURVEY	Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local w/m		
7.1.	7.1.1. Conduct a comparative analyses of the level of services and living standards enjoyed by the population of Slavutich, workers at CNPP and selected other locations in the Ukraine				—				10	1	Translation printing	Local Transport
	7.1.2. Prepare report concerning employment information services in Slavutich Region					—						
	7.1.3. Prepare report on assessment of the potential risks of labour migration from the safety and economic activity aspects					—	—					
	7.1.4. Conduct analyses of the levels of projected labour re-structuring at CNPP and elements that relate to social protection.				—	—	—					
	7.1.5. Prepare report for distribution and presentation at workshop					—	—	—				
	7.1.6. Incorporate recommendations into action plan.							—	4			

Project Title: Social Impact of closing Chernobyl NPP	Project Number: UK9401/0101/B003	Country: Ukraine	Page: 1.6. No 8
Planning Period: 1 January - 31 July 1996	Prepared on: 1 February 1996	EC Consultant: European Framework Group	

Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP

No	MAIN ACTIVITIES	TIME FRAME							INPUTS			
		January - July 1996							Personnel	Equipment and Material	Other	
		Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local w/m		
8.	PSYCHOLOGICAL ATTITUDES SURVEY											
	8.1.1. Design survey to establish psychological attitudes of the population of the Region.				—				5		Printing Translation	
	8.1.2. Agree on structure and methodology for undertaking the survey				—							
	8.1.3. Conduct survey				—				US			
	8.1.4. Analyse results and prepare report.					—						
	8.1.5. Present results to Steering Committee					—						
	8.1.6. Incorporate recommendations into Action Plan						—					

FORM 1.6. PLAN OF OPERATIONS FOR THE NEXT PERIOD

Project Title: Social impact of closing Chernobyl NPP	Project Number: UK9401/0101/B003	Country: Ukraine	Page: 1.6. No 9.1
Planning Period: 1 January - 31 July 1996	Prepared on: 1 February 1996	EC Consultant: European Framework Group	

Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP													
No	MAIN ACTIVITIES	TIME FRAME							INPUTS				
		January - July 1996							Personnel		Equipment and Material	Other	
		Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local w/m			
9.	DEVELOPMENT OF CORE TEAM TO ELABORATE AND IMPLEMENT THE ACTION PLAN.												
9.1.	Workshop 1 - Planning meeting NB each monthly report will contain an update on developments relating to other components of the Memorandum		—						12	0,5	Hire of facilities inter.. Audio visual ...	Local transport 18 days per diem Kiev 3x EU-Kiev	
9.2.	Workshop 2 - SME Development and legislation (date to be determined)			—	—	—			12	0,5	AS	Local transport 18 days per diem Kiev 3xEU-Kiev	
	9.2.1. Prepare monthly report										9.1		
	9.2.2. Prepare documentation and training guides												
	9.2.3. Translate												
	9.2.4. Implement workshop												
	9.2.5. Prepare report												
9.3.	Workshop 3 - Human Resource Management and Re-orientation of Labour Market. (26 - 28 March '96)				—				12	0,5	As 9.1 Br.+BBCxUS input	Local transport 18 days per diem Kiev 3xEU-Kiev	
	9.3.1. Prepare monthly report				—								
	9.3.2. Prepare documentation and training guides.				—								
	9.3.3. Translate				—								
	9.3.4. Implement workshop				—								
	9.3.5. Report				—								

Project Title: Social Impact of closing Chernobyl NPP	Project Number: UK9401/0101/B003	Country: Ukraine	Page: 1.6. No 9.2
Planning Period: 1 January - 31 July 1996	Prepared on: 1 February 1996	EC Consultant: European Framework Group	

Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP

No	MAIN ACTIVITIES	TIME FRAME							INPUTS			
		January - July 1996							Personnel		Equipment and Matcrial	Other
9 cont.	DEVELOPMENT OF CORE TEAM TO ELABORATE AND IMPLEMENT THE ACTION PLAN	Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local w/m		
9.4.	Workshop 4 - Project design, feasibility studies to be								12	0,5	Ditto	3xEU-Kiev 18 days per diem Local Transport
	9.4.1. Prepare monthly report											
	9.4.2. Prepare documentation and training guides											
	9.4.3. Translate											
	9.4.4. Implement workshop											
	9.4.5. Prepare report											
9.5.	Workshop 5 - Consultancy and advisory services development (21-28 June '96)								12	0,5	Ditto	3xEU-Kiev 18 days per diem Local Transport
	9.5.1. Prepare monthly report											
	9.5.2. Prepare documentation and training guides.											
	9.5.3. Translate											
	9.5.4. Implement workshop											
	9.5.5. Report											
9.6.	Workshop 6 - Presentation of Action Plan (9-11 July 1996)								10	1	Ditto	3xeu-Kiev 18 days per diem Local transport

FORM 1.6. PLAN OF OPERATIONS FOR THE NEXT PERIOD

Project Title: Social Impact of closing Chernobyl NPP		Project Number: UK9401/0101/B003			Country: Ukraine		Page: 1.6. No 9.3				
Planning Period: 1 January - 31 July 1996		Prepared on: 1 February 1996			EC Consultant: European Framework Group						
Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP											
No	MAIN ACTIVITIES	TIME FRAME							INPUTS		
		January - July 1996							Personnel	Equipment and Matcrial	Other
		Jan	Feb	Mar	Apr	May	Jun	Jul			
9 cont.	DEVELOPMENT OF CORE TEAM TO ELABORATE AND IMPLEMENT THE ACTION PLAN										
9.7.	Training abroad (See annex I)										
	9.7.1. Identify potential candidates				—				4		
	9.7.2. Select candidates on the basis of components to be included in Action Plan				—	—	—		2		
	9.7.3. Design training programme to develop expertise related to the various components of the Action Plan.				—	—	—)		
	9.7.4. Prepare brief for instructors				—)		
	9.7.5. Compile compendium of surveys conducted during project.				—)		
	9.7.6. Prepare pre training briefing package for participants				—	—)31		
	9.7.7. Identify and agree with hosts for study visits				—)		
	9.7.8. Conduct training (two weeks) (20-31/5)				—	—)		
	9.7.9. Evaluation						—)		

Project Title: Social impact of closing Chernobyl NPP	Project Number: UK9401/0101/B003	Country: Ukraine	Page: 1.6. No 10
Planning Period: 1 January - 31 July 1996	Prepared on: 1 February 1996	EC Consultant: European Framework Group	

Project Objectives : Action Plan to address the social impact of closing Chernobyl NPP

No	MAIN ACTIVITIES	TIME FRAME							INPUTS			
		January - July 1996							Personnel	Equipment and Material	Other	
10.	ELABORATION OF ACTION PLAN	Jan	Feb	Mar	Apr	May	Jun	Jul	INT days	Local w/m		
10.1.	10.1.1. Compile preliminary syntheses of surveys undertaken and reports prepared. 10.1.2. Distribute to Steering Committee for comments.					—			35	2	Prioritng costs Transalation	3xKiev-EU or Vice
10.2.	10.2.1. Prepare Outline Action Plan (prepared with participants of training programme abroad). 10.2.2. Distribute to Steering Committee for comments 10.2.3. Incorporate comments into Action Plan					—	—				Hire af	
10.3.	10.3.1. Prepare first draft of Action Plan 10.3.2. Distribute to Steering Committee for comments 10.3.3. Incorporate comments into Penultimate Draft							—				
10.4.	10.4.1. Prepare penultimate Action Plan 10.4.2. distribute to Steering Committee for comments 10.4.3. Finalise penultimate draft 10.4.4. Action Plan presentation workshop.							—				

Breakdown of prices

BREAKDOWN OF PRICES**I Direct Fees and expenses**

	UNIT	Quantity	Rate	Amount
Fees				
EU experts				
EU workdays	W/days	251	509	127,759
Ukr workdays	W/days	119	424	50,456
Local experts	W/months	**20	1,500	30,000
<i>Support staff</i>				
Secretary EU	W/months	7	2,500	17,500
Secretary Ukr	W/months	5	440	2,200
Interpreter	W/months	6	1,000	6,000
TOTAL A				233,915
B. Direct Expenses				
Per diem Ukraine	per day	119	186	22,134
Per diem Brussels	per day	19	225	4,050
Per diem Turin	per day	32	178	5,696
Communication costs	month	8	1,000	8,000
Internet	month	5	400	2,000
Local Transport	month	8	1,000	8,000
Visas	Number	32	130	4,160
Workshop costs (hire of facilities, photocopying)	Number	7	3,000	21,000
Training programme	Number	1		52,623
TOTAL B				127,663
TOTAL I				361,578

II REIMBURSABLES

Flights EU- Ukr	return	32	1,800	57,600
Internal EU (GVA-BRU, GVA-LHR, GVA-CPH, BRU-TUR)	return	13	1,000	13,000
Insurances	days	170	6	1,020
Reproduction costs	report	11	312,50	3,438
Courier costs	report	33	70	2,130
TOTAL PART II				77,188
TOTAL PART I + PART II				438,766

ANNEX A
TERMS OF REFERENCE

1. Project Background.

The magnitude of the social and regional consequences of closure

An agreement reached at the G7 meeting of July 1994 includes provisions for particular attention to be paid to social issues arising from the closure of the Chernobyl Nuclear Power Plant (CNPP). There is, of course, considerable concern with respect to social, local labour market and regional issues that would arise following the closure of the CNPP.

These concerns should be seen in the broader context of rising unemployment and a decline in living standards that is occurring as a result of the structural adjustment process the Ukraine is currently undergoing. Indeed, between 1991 and 1994 the economy of the Ukraine went into a state of hyper stagflation with a combination of dramatic economic decline and an inflation rate that reached 10,000 in 1993. In 1992 the cost of social protection was put at some 44% of GDP, with over half the population in receipt of cash benefits such as pensions, disability allowances and family supplements. Poverty is already widespread and severe and open unemployment is predicted to rise considerably in the near future. The Government aims to develop measures to decrease the level of mass unemployment resulting from major enterprise restructuring and to reform the social protection system to provide a minimum level of wages, pensions, housing and other social benefits.

In December 1994 the EU and USA undertook a joint fact finding mission to the Ukraine that had the specific terms of reference to examine the social consequences of closing CNPP. During this mission the potential magnitude of the social consequences were assessed, against the general socio-economic background of the country as outlined above.

The remaining active workforce at the CNPP is put at some 5,000. The city of Slavutich, which houses the totality of this workforce plus their families, has a population of some 30,000. In addition to the economically active in the city, some 25% of the population are under 16 years and there is also a high percentage of pensioners. The city shows a mono-industrial structure based almost entirely on the economic activities of the CNPP. Other industries and services in the region are largely auxilliary to the CNPP. There are some existing small businesses, currently employing around 1,000 people. In addition, some 1,000 individuals work in the medical services and 700 in the shelter project at the plant.

The workforce of the CNPP is made up of a large number of highly qualified workers including scientists and researchers. Some 33% is of Russian origin. Many of the present workforce has lived through the consequences after the 1986 disaster. The number of young people wishing to enter this branch of industry is decreasing and efforts to attract new workers to the plant are influenced by considerations for family and children. A complex issue also for the CNPP is the dependence upon highly qualified technical personnel for its safe operation. It is difficult to replace operators because of the reduced entry into the field of study.

Social and employment developments since 1986

Since the 1986 disaster, the social and employment developments may be traced. The immediate post catastrophe measures were as follows. A shift system of operation was introduced, with fortnightly rotations. The government supplied personnel with apartments in Kiev and a camp was built for purposes of work on the repairs to the plant. In parallel, the decision was taken to construct the city of Slavutich for those working at CNPP. The shift system of rotating workers from Kiev to the plant every two weeks was eventually rejected by the personnel.

Given the fact that legislation does not permit registration at two addresses, certain personnel preferred to move to Slavutich. However, some 90 percent of the original personnel chose not to return to live there and work at the plant. As a result the CNPP had to search for new personnel. Over a 2 to 3 year period the CNPP selected and trained new staff. While many of the new personnel at the plant were unhappy about the fact that they were working in the place of those who had been dismissed, in order to retain the personnel the management placed considerable emphasis upon the positive prospects of working at the plant and of living in the pleasant surroundings. The town of Slavutich was specifically developed after 1986 with spacious houses and high-quality living standards, it was labelled the city of the 21st century. The new personnel were convinced that they would have work until retirement.

In 1992, two years after the new personnel arrived at Chernobyl, No 2 reactor caught fire. In 1993 the Ukrainian Parliament adopted a Decision to close the plant. Following the Decision by Parliament, personnel received notice that the plant would close within five years and that they would be dismissed. This created a sense of frustration and low work morale among the newly arrived personnel and over the past two years the situation would appear to have deteriorated. Since 1993 some 25 % of the highly qualified personnel has left CNPP - a specific type of personnel usually requiring ten years of training. The plant has received few new young workers and in general there has been little incentive for training in this sector.

In late 1993 Parliament reversed the Decision to close the plant. Since then the management has been attempting to stabilise the situation. Although the rate of departure of the personnel has slowed down, there is a general climate of insecurity surrounding future prospects. A large number of those who have already left have moved to Russia. There is concern that the combination of uncertainty about the future of the plant and higher salaries in the Russian Federation may lead to further departures, particularly given the high percentage of Russians constituting the workforce at Chernobyl. Some concrete actions that would improve the working climate and stability at the plant should be considered. In May 1995, the decision was taken by the Ukraine to close Chernobyl by the year 2000.

As to social policies for the region, there is a Ministry of Chernobyl and a Chernobyl Fund which makes up part of the social security system. An estimated 5% of the national budget is used to solve the problems of Chernobyl. The Chernobyl Commission of the Ukrainian Parliament (CCUP) has established a special team to deal with the issue of closure of CNPP. The CCUP has stressed the need to address the social aspects in the plan of action.

Anticipated social and regional impact of closure

The closure of the CNPP will not just affect the 5,000 workers at the plant itself but will have an impact on all 30,000 inhabitants of Slavutich, who are dependent on the plant in one way or another. Any plan to cushion this global impact will have to take account both of the social impact on the individuals and the impact on the local and regional labour markets. Firstly, the age and qualifications structure of the workforce at the plant will have to be ascertained in order that categories of individuals may be determined. This will highlight the possibilities for early retirement, retraining, redeployment and transfer etc. and should lead to the development of a social plan for the workforce. Secondly, active labour market policies would have to be pursued in order to stimulate job creation and alternative economic activity, and also to address the issue of mobility.

Consideration must be given first of all to the anticipated labour needs of decommissioning the CNPP. Experience in Europe shows that efforts would require large numbers of personnel for dismantling, health and safety, maintenance etc. Of course the skills needs of these activities may require some retraining of the workforce, nonetheless significant numbers of workers would be required over a lengthy period of time after closure.

As to the excess workers, it must be recalled that much of the workforce at the CNPP is highly qualified. There may be the possibility of establishing a research and technology centre in Slavutich in order to develop and transfer expertise and deal with research into important issues such as waste treatment. An EU TACIS study on waste treatment will aim also to identify the volume of labour required for this activity. Other possibilities include the development of new technologies such as laser production for example.

Other immediate possibilities in the local region for economic development must be assessed fully. Small-scale industry exists in the field of electronics, furniture and clothing but the absorption capacity of such activities would need addressing. Activities both for attracting inward investment and stimulating indigenous activity would be necessary. Further activities must focus on addressing the mismatching of skills to demand or anticipated demand. As to mobility, the rigidity of the housing market in the Ukraine, the lack of opportunities elsewhere and the relative comfort of life in the region would no doubt hamper this.

2 Project Rational

In the light of the above, it is deemed necessary to ascertain the social and regional impact of the closure of the CNPP and prepare for the measures required to cushion this impact as far as possible.

To this end, it is intended to establish a joint working group composed of individuals from the Ukraine, the EU and the USA. The mandate of the working group will be to elaborate an appropriate series of social measures to accompany the consequences of closure. The tasks will focus on :

- the establishment of a social plan for all workers at the CNPP, to be reached ideally through a process of information, consultation and consensus with representatives of the workforce
- elaboration of passive and active mechanisms to compensate redundant employees;
- special mechanisms to retain experts during the de-commissioning of the CNPP;
- local economic and employment initiatives for the city of Slavutich and the region;
- administrative structures for implementation of all mechanisms
- a feasibility study to establish a nuclear research facility (to include possibility of nuclear disaster task force) to be placed in Slavutich.

The working group will be made up of four local experts, five EU experts* and one US expert.

*two of which to be financed under a separate EU project.

3 Project Beneficiary

It is anticipated that the counterpart of the project, subject to agreement, would be the President's Office. A steering committee, comprised of senior officials drawn from appropriate ministries and state committees, will be established to oversee the work of the working group. The work will be implemented in such a manner that there will maximum inputs from the Ukrainian side in order to arrive at an effective closure package.

4 Project Objectives

4.1. Long term objective

The implementation of an agreement to close Chernobyl Nuclear Power Plant with due consideration for Ukrainian energy requirements, safety during the decommissioning phase and the social implications for those affected by its closure or conversion.

4.2. Immediate objectives

Through the establishment of a working group consisting of representatives of the various interested parties in the Ukraine and appropriate experts from the G7, in particular the EU, to elaborate:

- (a) a "package" aimed at alleviating the major social consequences of closing Chernobyl Nuclear Power Plant
- (b) an appropriate structure to administer the initiatives contained in the closure package.

5 Project activities

5.1 Assessment

An updated assessment of the situation will be carried out in the first month of activity. This will confirm commitment to the proposed action. The local experts to participate in the joint working group will be particularly active during this phase.

5.2 Establishment of Steering Committee

The Ukrainian steering committee composed of high level Ministry officials, management and employees of the CNPP and local authorities of Slavutich will be established in the first month of activity.

5.3. Expertise input

The experts of the working group will provide input through a range of means, including workshops, one-to-one advice and study tour exposure.

It is anticipated that a series of workshops will be conducted, of a two day duration at intervals of 4-6 weeks. They will be attended by the steering committee, local and international experts. The workshops will address specific issues associated with the social impact of closure and issues of mass lay-offs in general. Moreover, the workshops will comment on the studies, analyses and recommendations of the team of experts; and elaborate solutions to specific problematic issues identified by the experts.

The workshops will be complemented by a study tour to the EU and/or USA for members of the Steering Committee. The study tour will be planned to incorporate visits to areas which have suffered mass lay-offs and/or regions that have experienced the impact of conversion (i.e. closure of a nuclear plant or conversion from military to civilian production).

The team leader of the working group will co-ordinate with local technical experts dealing with specific technical issues relating to the closure, for example manning levels for decommissioning. Furthermore, the team leader will prepare reports for distribution to G7 after each workshop. The team leader will also elaborate preliminary project outlines and budgets for discussions with potential G7 donors. These preliminary project outlines will be a natural outcome of on-going analyses and the workshops.

5.4 Coordination with other EU activities

In parallel to this activity, the EU is to finance the development and strengthening of an employment service in the city of Slavutich. This will provide for trained and motivated staff, briefed on the social plan measures as decided and ready to provide advice, counselling etc to redundant workers from the CNPP and other affected individuals in Slavutich. This activity

may be strengthened also by the establishment of a Business Development Agency to attract inward investment and an SME information service to provide advice to entrepreneurs.

The activities of the working group must be well coordinated with those of the other EU projects. To this end, two local experts and two EU experts from the above activity will equally join the working group. The latter, experts in the establishment of social plans and in local economic reconversion respectively will participate for 1mm each. In addition, the team leader of the EU employment project will act as adviser to the working group.

Active coordination with projects in the nuclear safety area will also be ensured.

6. Input of EU experts

6.1. Team leader (5mm)

- Collaborate with local experts in developing appropriate solutions to problems associated with the social impact of closure
- Analyse current structures in the Ukraine for providing compensation
- Plan, manage and act as facilitator at several workshops
- Prepare reports of workshops
- Prepare consolidated reports of analyses and studies for distribution to EU and its relevant Directorates, and the G7 where necessary
- Conduct meetings with relevant interested parties in the Ukraine
- Prepare preliminary project outlines for discussion with G7 member countries
- Prepare relevant background materials for EU - G7 discussions
- Advise on and ensure full coordination of the preparation of the social measures to be recommended for inclusion in the draft closure plan
- Undertake missions to Brussels and where appropriate to G7 countries
- Ensure coordination, management and quality control of experts inputs
- Ensure full and effective coordination with other EU activities

6.2. Technical expert - Project direction (2mm)

- Advise and assist in selecting topics for workshops
- Act as technical facilitator to workshops
- Plan and manage study tour of steering committee
- Ensure coherent and coordinated overall project direction

6.3. Technical expert - Public relations and information material (2mm)

- Assist Ukrainian counterparts in preparing information and sensitisation material related to the activities of the working group
- Prepare information materials for general distribution in G7 and in particular the EU in general on the progress of the activities of the working group.

6.4. Local experts (four for 5mm each)

- Prepare studies and analyses of the positions of the various interested parties in the Ukraine
- Conduct studies to identify alternative economic and employment development strategies following closure
- Conduct re-training needs analyses
- Provide inputs to workshops
- Brief individual members of the steering committee on a continuous basis.
- Assist formulate social plan and accompanying measures
- Assist with implementation of measures
- Liaise closely with local experts and EU experts on EU employment project

6.5 Other expertise input

In addition to this EU financed project, it is anticipated that an expert in local labour market development from the USA will be part of this working group. His input will be to assess local possibilities for economic development.

Moreover, two experts from the EU's other project activity to establish an employment service in Slavutich will join the working group each for 1 mm. The experts will input in the area of social plan development and local economic development. The measures drawn up as a result of the working group input will be implemented in part by the staff of the employment service. As such, full and effective coordination is necessary between all experts active in the area.

6.7. Interpretation, translation, secretarial input, support for local workshops, local transportation, documentation and printing etc.

To be provided under EU budget

6.8 Study tour

An appropriate study tour for some 15 participants should be developed.

6.9 Travel

This is to be provided for all members of the EU team from the EU budget

7. Timetable

It is anticipated that work of the working group will be completed by 31 January 1996. An elaborate workplan should be drawn up with inclusion of the mm of expertise to be provided by experts working under the EU employment project.

8. Equipment

No equipment will be provided under this project

10 Reporting

Reports will be prepared in English after 1 month and 3 months and on completion of the project. They will be sent to the Task Manager, the EU Delegation and the CU in Kiev.

ANNEX B

CONTRACT

Christian Skive
1496(i)



EUROPEAN COMMISSION
DIRECTORATE GENERAL IA
EXTERNAL RELATIONS: Europe and the New
Independent States, Common Foreign and Security
Policy and External Missions

dangroup	
11 NOV. 1995	
Kopi	Arkiy/S
MSC- MAN	

CONTRACT WITH ANNEXES

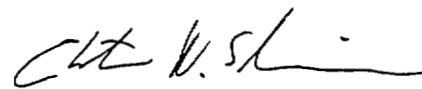
AFTALE

Carl Bro Management

.....accepterer hermed at overtage,
jvf. § 4 og 10 af Dangroup-Samarbejdsaftalen af den 17. august 1995, det fulde faglige og
økonomiske ansvar for gennemførelsen af følgende opgave, kontraheret i Dangroup's navn:

Kontrakt: Joint EU - US working group for social impact of
..... Chernobyl closure
.....
.....
Klient: The European Commission
.....
Kontrakt dato: 31.10 1995

den ^{20/10} - 1995



Underskrift

9009

SERVICE CONTRACT
Number/...../.....
UK 9401/0101/B003
between

The European Commission
Directorate General IA
External Relations
TACIS IA/C/7
88, rue d'Arlon
B-1040 Brussels

(Contracting Party)

and



EUROPEAN FRAMEWORK GROUP
DEVELOPMENT CONSULTANTS
Rue Montoyer 63
B-1040 Brussels
(Contractor)

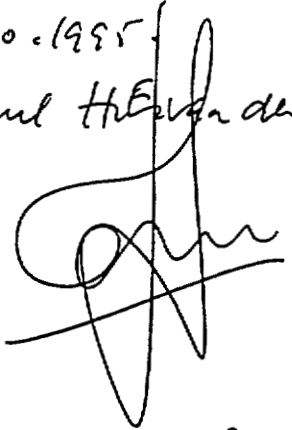
for the Project entitled: Joint EU - US working group for social impact of Chernobyl closure

SIGNATURES:

Read and approved for the
European Commission

Read and approved
for the Contractor

At Brussels 
Date 
Name/Title *30.10*
95

At *Brussels*
Date *31.10.1995*
Name/Title *Paul H. E. van der Kam*


Between

THE EUROPEAN COMMUNITIES represented by the EUROPEAN COMMISSION, for its part represented by Mr. H. Mingarelli, acting Head of Unit LA/C/7

hereinafter referred to as the Contracting Party,

and

EUROPEAN FRAMEWORK GROUP DEVELOPMENT CONSULTANTS

with its registered office at

Rue Montoyer 63
B-1040 Brussels

represented by Mr. Paul H.E. van der Kam, Managing Director

hereinafter referred to as the Contractor,

It is agreed within the context of the European Communities TACIS Programme to provide services as follows :

Article 1 (Annex E General Conditions (GC): 8-16)

OBLIGATIONS OF THE CONTRACTOR

1. This Contract has the objective to provide professional and operational support in accordance with the annexed Terms of Reference and the Contractor's corresponding tender. To this effect, the Contractor shall carry out the tasks described in the Terms of Reference (Annex A) (hereinafter referred to as the "Services") in accordance with the terms of this Contract and its Annexes.

2. The Contractor shall assume technical responsibility and general supervision for the tasks specified in Annex A.

Article 2 (GC: 21, 45)

DURATION OF THE CONTRACT

1. The contract will come into force as of the date of its signature by both Parties.

2. The Contractor shall start the implementation of the tasks provided for under the present contract within two weeks from the effective date of the contract.

3. The Contractor shall complete the implementation of the tasks provided for under the present contract within five months from the effective date of the contract.

Article 3 (GC: 17, 18)

PERSONNEL

1. The Contractor shall make available the personnel whose names, qualifications and experience are listed in Annex C to carry out the services and specific tasks assigned to them. In case of non-availability of a listed person for duly justified reason the Contractor may propose a qualified replacement to the Contracting Party.

Article 4 (GC: 2, 19)

ADDRESSES

Reports and all other communications between the Contracting Party and the Contractor shall be sent to the following addresses in the English language, if not specified differently in Annex A-Terms of Reference :

For the Contracting Party:

A) Reports and communications shall be sent to:

The European Commission
Directorate-General IA
External Relations

88, Rue d'Arlon
B - 1040 Brussels
TACIS IA/C/3
Tel : ++32 2 2963377

Attn. : Mrs. D. Marshall
Fax : ++32 2 2950680

B) Invoices and other communications concerning payments shall be sent to:

TACIS IA/C/7 Attn. Mr Rudi Mathijs (same address as above)
Tel. : ++32 2 296 39 57 Fax : ++32 2 295 74 82

For the Contractor:

European Framework Group Development Consultants
Rue Montoyer 63
B-1040 Brussels
Tel. : ++ 32 2 2370709

Attn. Mr. P van der Kam
Fax: ++32 2 2302755

Article 5 (Annex D and GC: 26, 30)

REMUNERATION/PRICES

1. In consideration of the execution of the Services by the Contractor the Contracting Party shall pay the Contractor in accordance with the provisions of this contract.

2. No revision of prices will be applicable to this contract.
3. The total amount to be paid under the contract shall not exceed 274,555 ECU.

Article 6 (GC: 26, 27, 28, 29, 31)

INVOICES/PAYMENTS

1. Payments to the Contractor are due for Services rendered when the Services have been performed to the satisfaction of the Contracting Party and according to Annex D (Breakdown of Prices) to this contract.

2. The Contractor shall be entitled to payment for :

A) Fees and Direct Expenses

For fees and direct expenses payment shall be made in accordance with the payment plan mentioned below and subject to any particular provision (e.g. linked to approval of reports):

Advance

An advance of ECU 76,785 (=35 % of the fees and direct expenses) will be made after signature of the contract and upon receipt of a written request for payment and of a bank guarantee as per Annex F to this contract.

Final Payment

Final payment up to the balance of the fees and direct expenses will be made after approval by the Contracting Party of the Final Report (see Terms of Reference).

B) Reimbursable expenses

For the reimbursable component, a separate invoice shall be submitted with the corresponding interim and final payment along with all necessary documents (originals) and vouchers.

Article 7 (GC: 27, 28, 31)

PAYMENT PROCEDURE

The Contracting Party shall make payments to the Contractor in accordance with the following provisions :

1. Payments shall be made into the Contractor's account :

Name of Account Holder :	European Framework Group
Account Number :	310 107 30 15 87
Bank address :	B.B.L. Rue d'Arlon 26, 1040 Bruxelles

2. Payments shall be made in ECU.

3. Payments shall be made only upon submission of invoices to the address stated in Article 4. The Contractor shall submit invoices on the basis of the work actually carried out, broken down as appropriate into:

- a) fees
- b) direct costs
- c) reimbursable expenses.(separate invoices).

4. Invoices and requests must be duly signed and made out to the Contracting Party.

5. Conversion to ECU from other currencies, where necessary, shall be made on the basis of the rate stated by "Infor ECU" published by the Contracting Party.
(Copies of "Infor ECU" are available from the European Commission tel. ++32.2.2960338).

Article 8 (GC: 36)

TAXES

In the European Community, the Commission as a Contracting Party is exempt from all taxes and duties, including Value Added Tax (VAT), pursuant to the provisions of Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Communities with regard to its financial contribution under the Contract.

In the recipient state the Contractor benefits from the tax and other facilities granted as per Annex F.

The Contracting Party shall bear no financial liability in the event that the authorities of the recipient state should refuse to apply in favour of the Contractor the above mentioned exemptions and privileges. Should such an event occur, the Contractor will inform the Contracting Party immediately. The Contracting Party shall exert its best efforts to support the Contractor in dealing with the competent authorities.

Article 9

MONITORING

The Contracting Party may appoint a third party (hereinafter Expert) to conduct a monitoring and evaluation of the activities to be performed by the Contractor hereunder.
The Contractor shall extend the Expert his fullest cooperation and provide him with all the information and documents the Expert may need to accomplish his task.

Article 10 (GC: 44)

LAW OF THE CONTRACT

All texts of the Contract shall be construed according to the provisions and principles of the law of the European Community. For all matters not covered by the Contract provisions, the performance of the Contract shall be governed by the law of Belgium.

Article 11 (GC: 47)

DISPUTES

Any disputes arising out of or relating to this contract which cannot amicably settled will be referred to the exclusive jurisdiction of the competent Court in Brussels, Belgium.

Article 12 (GC: 45, 46)

GENERAL AND FINAL PROVISIONS

1. This contract is composed of :

The Contract

Annex A: Terms of Reference

Annex B: Organisation and Methods

Annex C: List of Staff

Annex D: Breakdown of Prices

Annex E: General Conditions for Service Contracts financed
from PHARE/TACIS funds

Annex F: Miscellaneous

All these parts form an integral part of this Contract.

2. The order of precedence of the contract documents, in case of any conflict between them, is according to the above mentioned ranking.

3. Any amendment to this Contract must be agreed to in writing.



EUROPEAN COMMISSION
DIRECTORATE GENERAL 1A
EXTERNAL RELATIONS
Europe and the NIS, Common Foreign and Security
Policy and External Missions.

Annex A: Terms of Reference



EUROPEAN COMMISSION
DIRECTORATE GENERAL IA
EXTERNAL RELATIONS
Europe and the NIS, Common Foreign and Security
Policy and External Missions.

Annex B: Organisation and Methods

1.0. Background and understanding of the issues

- 1.1. At the June 1995 meeting of the Group of Seven countries (G7) discussions were held with the Government of Ukraine concerning the closure of the Chernobyl Nuclear Power Plant (CNPP) which had suffered a major accident in 1986. These discussions were held against the background of a reversal of an earlier decision of the Government of Ukraine to close the Plant. The reversal of the decision was taken as a result of the deteriorating economic situation of the country and concerns relating to the social impact of closure upon the town of Slavutich. Slavutich was constructed immediately after the 1986 accident to house the workers of the Plant and their families. The town and its immediate hinterland are solely dependent both economically and for employment upon the CNPP.
- 1.2. In late 1994 a joint EU - US exploratory mission was undertaken to determine the major issues relating to the social impact of a possible closure of CNNP. The mission held discussions with the major actors associated with the Plant. A broad spectrum of views were expressed concerning the Plant's potential closure. In order to arrive at mutually acceptable solution to the Ukraine and G7 concerning closure it was recommended that a working group be established to elaborate a programme to address the social consequences of closure, in particular in relation to the city of Slavutich.
- 1.3. Of major concern is the complete dependence of Slavutich upon CNNP and moreover the consequences for safety if there is continual uncertainty about the Plant's future. It has been suggested that this uncertainty has resulted in key technical staff, particularly those of Russian origin, to seek employment in the Russian Federation where salaries are higher.
- 1.4. By former Soviet Union standards, the city of Slavutich contains superior housing accommodation, social and leisure facilities. The City was constructed with the financial assistance of the former Soviet Republics. Since the break-up of the Soviet Union, finances for further development of the city have ceased. Furthermore, the Ukraine has borne the financial burden both for repairing the Plant and for payment to support the victims of the accident. Such is the burden upon the Government of the Ukraine that it is estimated that 20 per cent of the annual budget should be channelled to address issues related to Chernobyl.
- 1.5. In late 1994 a group of US consulting engineers prepared a proposal to convert CNNP to traditional fuel. It is understood that the technology exists to undertake such a conversion. During 1995 a number of preliminary agreements have been made with Western Companies to undertake the conversion on a "Build-Operate-Transfer" (BOT) basis. Should these intentions be brought to fruition, there will be a need for re-training and other forms of technical assistance.
- 1.6. The question of nuclear waste remains a major concern. Whilst funding, and in particular international funding, has to be secured to address this issue, there is no doubt that nuclear waste treatment and the treatment of contaminated areas could offer alternative employment for staff made redundant from CNNP in the event of closure or conversion. Once stability concerning the future of the Plant has been established, it is likely that foreign companies may be willing to establish joint-ventures in the field of waste treatment.
- 1.7. The experience of dealing with the scale of the accident at Chernobyl is unique. It would appear expedient not to disperse the experience that the staff of the CNNP possess. A possible mechanism to retain this experience would be to establish a research and consultancy centre in Slavutich. The centre could provide services throughout the NIS where plants of similar design exist. It is understood that such a mechanism could complement both EU TACIS and other international donor actions in the field of nuclear safety. Given the widespread use of the electronic medium in

the NIS, the possibility of using third generation distance learning for this purpose could be explored.

- 1.8. The Ukraine will continue to rely on nuclear power as one of its major sources of energy for the immediate future. However, it is understood that it would be advisable that other potential sources are explored. Research into possible alternative sources and their application in the Ukraine could be undertaken at the research centre outlined in point 1.7..
- 1.9. Slavutich and its immediate hinterland possesses a highly qualified and young work force. The potential for diversifying from the nuclear industry into other high technology industry to stimulate employment and economic generation of the region therefore exists. The parameters to stimulate such development are the subject of a parallel project to the current project that will examine the broader issues of determining solutions to the social consequences of a potential closure or conversion of CNPP.
- 1.10. Having stated the above, it is understood that the working group comprised of the EU and US is to develop a comprehensive programme to address the consequences of potential closure or conversion, in particular the impact upon the sustainable economic and employment development of Slavutich. In undertaking its work, the working group will examine various scenarios and propose solutions to these as project within the framework of the overall programme. Thus it is understood that the following scenarios and issues are to be addressed:

- o potential technical assistance requirements in the event of conversion
- o measures to be taken in the event of closure in particular during the de-commissioning phase;
- o the feasibility and related costs of establishing a research centre,
- o the potential for establishing enterprises for dealing with nuclear waste;
- o the potential for establishing high tech enterprises in the non-nuclear sectors;
- o compensation packages and issues related to health care.

- 1.11. It is understood that the EU consultants are to regularly inform the G7 of the results of the analyses being undertaken within the framework of the project in order that proposals are developed that will be acceptable to potential providers of assistance.

2.0. Project approach

- 2.1. A fundamental element of the approach to the project will be that of developing a consensus and of arriving at a solution that is primarily developed by the Ukraine but which will be mutually acceptable to the G7 and the EU member states. Thus the key words are:

partnership, trust and mutual understanding

This will be achieved by:

- o the establishment of a steering committee of the major actors in the Ukraine dealing with Chernobyl issues:
- o the establishment of a core working group of local and international experts to inter-act with the steering committee;
- o regular workshops to discuss the progress and direction of the project

awareness and information

This will be achieved by:

- o study tours to the EU in regions previously dependent upon one industry in order to study the mechanisms adopted to stimulate economic regeneration;
- o information materials both for the Ukraine, in particular Slavutich, and the EU Member States to highlight the positive steps being taken.

3.0. Activities

3.1. Establishment of steering committee

A steering committee will be established comprising of the Ministries and State Committees that are associated with Chernobyl issues, the management of CNPP, trade unions, entrepreneur associations and representatives of the city of Slavutich. At the first meeting of the steering committee the work plan and issues to be addressed will be agreed. Moreover, the local experts who will work in the core working group will be agreed and appointed. Finally, the steering committee will agree upon the timing and contents of the study tour. The steering committee will meet at regular intervals at the workshops to be held and described in point

3.2. The core working group

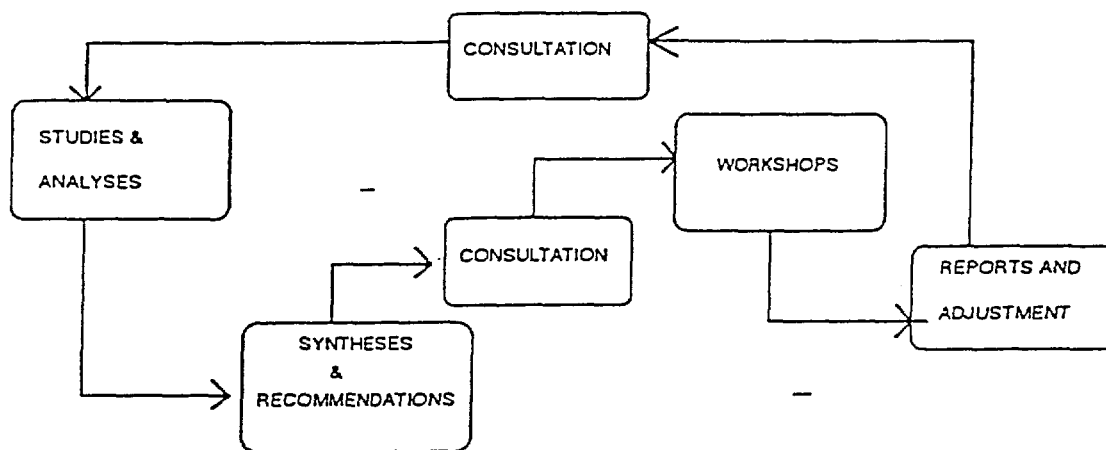
The core working group comprised of local and international experts will liaise with individual members of the steering committee, plan and conduct workshops and undertake studies, analyses and prepare proposals for the consideration of the steering committee and the G7. Once its make-up has been agreed and established by the steering committee the core working group will proceed as follows:

Phase One - Preliminary studies and analyses.

- o The local experts will determine views and opinions of individual members of the steering committee ;
- o The local experts will develop and conduct a survey of the population of Slavutich concerning their views concerning remaining in the city, employment prospects and wishes, views concerning facilities and their general concerns;
- o The local experts will conduct a detailed analysis of the technical profile of the employees at CNNP and their wishes;
- o The international experts will conduct interviews with potential donors and commercial entities on issues concerning de-commissioning, conversion, waste treatment, the establishment of a research centre and the establishment of non nuclear enterprises;
- o The local and international experts will analyse and prepare a synthesis of the results of the studies to present at the first workshop of the steering committee

Phase Two - in depth analyses and studies

Following the consultative process of the first workshop, the core working group will conduct in-depth action research and analyses in order to elaborate the components (sub-projects) of the final programme that will address the social consequences of closure or conversion of CNNP and a programme for sustainable local and economic development at Slavutich. The process of elaborating the components will involve constant inter-action between the core working group, the steering committee and G7. The flow of work between each workshop can be illustrated as follows:



Prior to each workshop a series of studies and analyses are agreed upon. The core group will prepare draft syntheses and recommendations based on the analyses. These will be circulated and discussed with the key actors prior to each workshop. At the workshops the reports will be discussed and plans for further action and more in depth work will be agreed. Proceedings of the workshops will be prepared and circulated for a post-workshop consultative process whilst the next phase of studies and analyses is undertaken. It is envisaged that there will be four such workshops during phase two.

Phase three - preparation of programme

Based on the activities of phases one and two, the programme to address the consequences of a potential closure or conversion of CNPP, in particular the sustainable economic development of Slavutich will be prepared. The programme will contain a series of self-contained projects to be considered by international donors and financial institutions (e.g. EBRD and the World Bank). Prior to the finalisation of the programme a workshop - roundtable meeting of the Steering Committee and G7 representatives will be conducted to ensure that the contents of the programme will be acceptable to all parties. After this workshop, the final draft of the programme will be prepared.

3.3. Study tours

The purpose of the study tours will be to provide members of the Steering Committee with an understanding of measures taken in the EU and US (and possibly other G7 countries such as Canada) to stimulate economic re-generation in regions which have been affected by structural adjustment, in particular those which had traditionally on one industry. Moreover, the study tour will include visits to organisations that are involved in the treatment of nuclear waste. The study tour will be undertaken during an early phase of the project. The study tour will also serve to stimulate efficient working relationships within the Steering Committee and as such after each visit contained in the study tour, roundtable meetings will be held to ensure that all views and impressions of the Steering Committee are documented.

The EU component of the study tour will be of ten days duration and will include visits to the Member States that are G7 members. A tentative programme and contents for the study tour would be as follows:

France, Germany & the United Kingdom : Regions which have undergone structural adjustment

Purpose : to compare interventions and mechanisms adopted in the different countries to stimulate economic and employment re-generation following structural adjustment;

Organisations and enterprises involved in the treatment of nuclear waste.

Purpose : to establish linkages and possible collaboration to establish similar enterprises in Slavutich.

Italy : Emilia Romagna Region which has a high concentration of micro enterprises and SMEs

Purpose : to illustrate that sustainable economic and employment development can be achieved through a system based upon SMEs and its support infrastructure.

ENEA, the Agency for technological innovation

Purpose : to illustrate how highly qualified research personnel (including nuclear physicists) inter-act with industry, in particular SMEs, in the innovation process.

N.B. Once the project has commenced, the team leader will make efforts to secure supplementary funding (possibly from other G7 member countries) to extend the length and depth of the study tour.

3.4. Information

There are two major issues concerning information in relation to the potential closure or conversion of CNPP. These relate to:

- o Decision makers and the general public outside the Ukraine; and
- o The workers of CNPP and the inhabitants of Slavutich.

Decision makers and the general public outside the Ukraine

Following the accident in 1986 at Chernobyl, the issue of the consequences of the accident and potential risk of a new accident have appeared on a regular basis in the international media. External pressure to close the Plant has mounted over the years. Whilst there is a consensus that the issue now has to be taken in earnest, there is limited information disseminated, in particular to Ukraine's immediate EU neighbours of the enormous financial strains the country is experiencing. The accident occurred at a time when the Soviet Union still existed. Since the break-up of the FSU, Ukraine has been left with financial burden of : compensating victims; continuing the clean up operations; and ensuring that a further accident does not occur. This situation must be seen in the light of the deteriorating economic situation in the Ukraine as it moves to a market economy. The Ukraine's need to pay world

market prices for alternative non-nuclear energy during this period is also a major concern to the Government, especially if Chernobyl is to close.

Therefore, a media information campaign will be prepared to address these issues in a factual non-sensational manner. The information campaign will also include materials to illustrate to the public outside the Ukraine that the EU and US are taking actions to assist the Ukraine in addressing the problem. Given the experience of the international expert to be assigned to this task, it is anticipated that, subject to the agreement of TACIS, additional funding will be sought in order to prepare a TV documentary to illustrate the scale of the closure problem within the context of Ukraine's current economic situation.

The workers of CNPP and the inhabitants of Slavutich

The constant changes of decision concerning the future of CNPP have created considerable uncertainty among the staff of CNPP and the inhabitants of Slavutich. It has been suggested that the uncertainty surrounding the CNPP future has resulted in highly qualified staff leaving the Plant with serious consequences for safety. In addition the situation has caused considerable stress within the community of Slavutich. This must be seen against the background of the general economic and employment situation in the Ukraine.

As the work of the project progresses and potential alternatives emerge that have a high certainty of being realised, information material addressed to the CNPP workers and Slavutich will be prepared and information meetings held.

The need to supplement this activity with a national campaign to inform the Ukrainian public that measures are being taken to address the Chernobyl issue will be discussed with the Steering Committee.

4.0. Co-ordination

Co-ordination will be central to the project activities and will involve:

- o regular meetings with EU TACIS to ensure that project proposals are developed in such a manner that they reflect EU (and G7) medium and long term policies (including funding) concerning Chernobyl;
- o co-ordination with EU Directorates that are involved with Chernobyl issues;
- o co-ordination with USAID
- o co-ordination and on-going dialogue with other G7 countries that could possibly contribute to the funding of the final programme package;
- o on-going dialogue with international financial institutions such as EBRD and the World Bank;
- o on-going dialogue with companies that may be involved in a BOT arrangement to convert the Plant or those which may be involved in potential joint venture collaboration in such sectors as nuclear waste treatment;
- o co-ordination with the employment services project in Slavutich;
- o co-ordination of the work of the BBC experts who will be partly engaged to elaborate social packages;

5.0. Implementation schedule.

The implementation schedule will be as follows (see fig 5.1)

6.0. Management Structure

This section outlines the key elements of the management structure.

Roger Short, who has extensive experience in project design for EU TACIS and the United Nations agencies will have overall responsibility for the management and co-ordination of the project. Roger Short has many years experience with issues dealing with local economic development based upon SME systems, science and technology and labour and social issues. He will be responsible for planning and co-ordinating the work of the core working group in collaboration with the local team leader. Moreover, he will be responsible for managing the preparation of reports and their quality control. Furthermore, he will be responsible for the regular information flow between the project and the EU (and G7).

Under the supervision of Roger Short, David Johnson, will provide back-stopping particularly in Brussels and will assist Roger Short in the drafting of the main programme. In particular he will assist in the report preparation prior to and after the workshops. He will also ensure that materials from the experts not involved in this contract (i.e. BBC and US) are received at the pre-set deadlines.

Under the supervision of Roger Short, Jens Kastberg will be responsible for the information dissemination issues. Jens Kastberg has extensive experience in preparing documentaries and information campaigns such as the anti-smoking and anti-burglary national campaigns in Denmark.

Four local experts will be engaged for the duration of the project. This will be:

- (i) local team leader
- (ii) expert in social issues
- (iii) expert in Chernobyl issues
- (iv) expert in information dissemination.

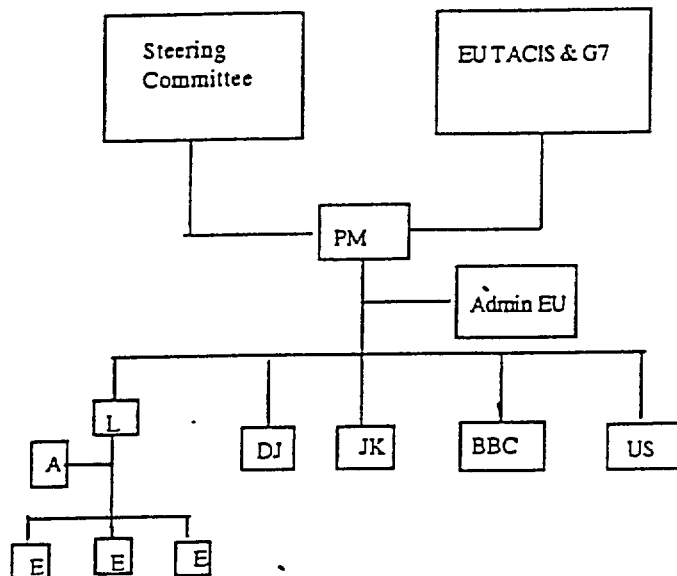
The local team leader will be expected to have access to senior levels of Government and moreover be respected at that level. He/she should have a good insight of the current political and economic situation in the Ukraine and understand the sensitivities of the work that is to be undertaken. The team leader will liaise with the project co-ordinator in the preparation of reports and the scheduling of project activities to be undertaken by local experts. He/she should ideally speak English and/or French

The expert in social issues should have a broad understanding of the reforms that are being undertaken in the social sector in the Ukraine. He/she should have experience in survey design, implementation and analysis. He/she should ideally speak English and/or French.

The expert on Chernobyl issues should have a deep insight into the complex issues that have surrounded the CNPP and the city of Slavutich since the accident in 1986. The expert should have the trust of the CNPP and the authorities in Slavutich. The expert will work closely with the team leader and the project co-ordinator in dealing with sensitive matters to ensure the full collaboration of the parties. He/she should ideally speak English and/or French

The information expert should have experience in the media, preferably television. The expert will work closely with Jens Kastberg in elaborating the information campaigns.

All the experts will be linked by Internet.



- PM = Project manager
- DJ = David Johnson
- JK = Jens Kastberg
- BBC = Employment and social studies
- US = Bernard Kelly
- L = Local team leader
- E = Local experts
- A = Local admin and backstopping

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Activity	Resources	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Per Day
2	Pre start up														
3															
4	Preliminary discussions	RS													12 days (RS)
5	Establish Steering Comm	RS													5 days (DJ)
6	Locate & hire local experts	RS + DJ													
7															
8	Core work-group	EU + RS + DJ													17
9	Phase one	US + BK													
10															
11	Surveys and analyses	Local													
12	Contact with donors	RS + DJ													
13	Syntheses	Loc + EU + US													
14	Consultations	Local													
15	Workshop 1	Loc + EU + US													
16	Report preparation	Loc + EU + US													12 days
17															
18	Phase two														12
19															
20	Surveys and analyses	Local													
21	Contact with donors	RS + DJ													
22	Syntheses	Loc + EU + US													
23	Consultations	Local													
24	Workshops 2 - 3	Loc + EU + US													
25	Report preparation	Loc + EU + US													12 days
26															
27	Phase three														12
28															
29	Preparation of programme	Loc + EU + US													
30	Contact with donors	RS + DJ													
31	Consultations	Loc + EU + US													
32	Workshop 5	Loc + EU + US													
33	Finalise programme	RS													8 days
34															
35	Study tour														
36															
37	Prepare outline of study tour	DJ													
38	Consult with SC and agree	RS + DJ													
39	Final planning	DJ													
40	Conduct study tour	RS													
41	De-briefing and report prepare	DJ + RS													130 days
42															
43	Information campaigns														130
44															
45	Preparatory mission	JK + local													
46	Outline campaigns	JK + local													
47	Agree national camp with SC	Local													
48	Agree international with TACIS	JK + RS													
49	Prepare campaigns	JK													
50	Conduct information meetings	Loc + JK + BK													
51															
52															
53															
54	Co-ordination														25
55															
56	Meetings with employment proj	RS + DJ + BK													
57	Meetings in Brussels	RS (DJ)													
58	Meetings with G7 reps	RS													14 days
59															
60	Administration														14
61															

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EUROPEAN COMMISSION
DIRECTORATE GENERAL 1A
EXTERNAL RELATIONS
Europe and the NIS, Common Foreign and Security
Policy and External Missions.

Annex C: List of Staff

CURRICULUM VITAE

Name: SHORT, Roger William

Specialisation: Project design; human resources development; social and labour market issues, small firm collaborative models (networking); technology and technology transfer; construction industry development and international networking

Nationality: British

Address: DanEduc a|s ,
Granskoven 18
P. O. Box 69
DK-2600 Glostrup
Denmark

Tel: + 45 43 96 22 00
Facsimile: + 45 43 96 08 08

Languages:

English	Mother tongue
Italian	Fluent
Danish	Fluent
French	Excellent
German	Good
Spanish	Good
Portuguese	Good
Norwegian	Good
Swedish	Good

KEY QUALIFICATIONS

Roger Short is a consultant in project identification and formulation, primarily in aspects of: local and regional economic and employment development; social and labour market issues; high technology transfer from research organisations to industry; the provision of technological services to small-firm networks in developing countries; and economies in transition. He also collaborates with the organisations and institutions within and outside the EC in providing advice to these countries on how to develop "real" service systems for SMEs and models of collaboration between SMEs. within this context he provides advice on developing appropriate environments to stimulate self employment and micro enterprise development. He has previously worked as an industrial specialist with Industrial Activities Branch of the International Labour Office where he dealt with the labour and social issues in the construction industry. He has extensive experience in the problems associated with providing services to small and medium sized enterprises in order to generate local employment and economic development. In 1993 he was engaged to establish the Small Enterprise and Local Economic Development Association (SELEDA) an international not-profit organisation. He worked for some eight years with the Jutland Technological Institute (JTI) (later the Danish Technological Institute (DTI)) the major provider of services to SMEs in Denmark. The services embraced training, management consulting, research and development and appropriate technical services to small and medium sized enterprises. During his period of employment at the Institute, Roger Short in his capacity of chief internationalisation consultant, was primarily engaged in international activities and in particular in the development of strategies to

internationalise the services of JTI/DTI and its SME target group. He also undertook numerous international consultancy assignments and developed projects to promote inter-regional collaboration to promote SME access to global markets and technologies.

In 1988 Roger Short was instrumental in launching the Danish national campaign (managed by JTI) to inform SMEs of the consequences of the EC Single Market. In the same year he was involved in designing the National Network Broker Programme that incorporated elements of the Italian industrial district model of providing services to clusters of small firms.

Also in 1988, he was elected Secretary-General of the World Association of Industrial and Technological Research Organisations (WAITRO), an international NGO was established by UNIDO in 1970. During his period of office, which he held until the time of joining the ILO, he was actively involved in the problems associated with the restructuring of services to SMEs. As a result of his work, a special committee within WAITRO was established at the 1990 General Assembly of the Association. This committee provides advisory services to members of the Association that are facing restructuring and on mechanisms to promote collaboration between firms. Mr. Short has been involved in training and consultancy either in or for participants from the following countries: Bangladesh, Belarus, Brazil, Czech and Slovak Republics, Fiji, Hungary, India, Indonesia, Kenya, Lya, Malaysia, People's Republic of China, Papua New Guinea, Pakistan, Poland, Roumania, Russian Federation, Sri Lanka, Tanzania, Thailand, The Philippines, Trinidad and Tobago, Ukraine and Zimbabwe.

EDUCATION

1977 - 1980 B.Sc. (hons) 1st Class, Building Surveying (maintenance), Reading University, U.K.

1981 - 1983 Doctoral research associate, Henley, The Management College, University of West London, U.K.

Research area:

Project strategy for the identification of client needs and the formulation of project objectives for the successful implementation and execution of capital export projects, particularly in developing countries.

PROFESSIONAL EXPERIENCE

- 1993 - Independent consultant, Roger Short & Associates
- 1991 - 1993 Industrial specialist, Industrial Activities Branch, International Labour Office, United Nations, Geneva, Switzerland
- 1988 - 1991 Chief Internationalisation Consultant, The Jutland Technological Institute (JTI) and The Danish Technological Institute (DTI), Department of Corporate Strategy and Internationalisation, Denmark
- 1988 - 1991 Secretary-General of the World Association of Industrial and Technological Research Organisations, Denmark
- 1983 - 1988 Consultant, International Section, The Jutland Technological Institute (JTI), Denmark
- 1981 - 1983 Research Associate, Henley, The Management College, U.K.
- 1977 - 1980 University studies (see education above)
- 1971 - 1977 Freelance land surveyor/site engineer and construction manager

- 1970 - 1971 Construction manager D & H Contractors Ltd. Cambridge U.K.
- 1969 - 1970 Geometra, Impresa Guffanti, Milan
- 1967 - 1969 Site manager, D & H Contractors Ltd., Cambridge, U.K.
- 1965 - 1967 Trainee site engineer, George Wimpey, Hammersmith, U.K.

SELECTED ASSIGNMENTS

Roger Short and Associates

- 1994 Part-time chief technical adviser for the conversion of the physical and human resources of ex-military in order to facilitate local socio-economic regeneration by creating employment through small enterprise and self-employment promotion. ILO/UNDP (on-going)
- 1994 Expert for the preparation of the project terms of reference for the improvement of labour services, including pilot employment generating activities. Mangolia (EU TACIS)
- 1994 Expert for the preparation of the project terms of reference for the establishment of a management information system for the Ministry of Education. Mangolia (EU TACIS)
- 1994 Expert for the preparation of the project terms of reference for higher economics education in an economy in transitio. Mangolia (EU TACIS)
- 1994 Team leader for the provision of policy advice on restructuring science and technology funding in an economy transition, Russian Federation (EU TACIS)
- 1994 Expert for the preparation of the project terms of reference for technical assistance in the field of intellectual property protection. Russian Federation (EU TACIS)
- 1994 Expert for the preparation of the project terms of reference for technical assistance in the field of standard and certification. Russian Federation and Ukraine (EU TACIS)
- 1993 Expert for the preparation of the project terms of reference for the project terms of reference for improving the employment potential of acientists and technologists in an economy in transition, Russian Federation (EU TACIS)
- 1993 A series of activities concerning the conversion of military bases in Belarus into small business parks, insuch a way as to maximise the natural, physical and human resources, in particular highly qualified technical personnel of the country. The activities have included: outline design for two strategy workshops for the high level *national committe for employment promotion through enterprise creation in zones under conversion*; project identification mission for the conversion of military bases; resource person for seminar on the subject of SME development strategies, in particular the provision of "real services", Minsk, Belarus; preparation of feasibility proosal for conversion of military garrisons in Belarus, including training needs analysis (ILO and State Employment Commission, Belarus)
- 1993 Consultant to IN-IN System (Moscow) and technological organisations in Volgograd to establish a technological transfer institution in France (Genevois Global Technology) and to conduct preliminary work on establishing two "silicon valleys" in Russia.

- 1993 Associate consultant of the British Council Projects Division, advice on strategies for technical assistance in the field of SME development (current)
- 1993 International adviser to ASTER (the Regional Technological Services Agency for Emilia Romagna, Bologna, Italy) (ongoing)
- 1993 Consultant for the design of appropriate training methodologies for entrepreneurs and managers in the former republics of the Soviet Union (ILO) (current)
- 1993 Project identification mission for the conversion of military garrisons to business development parks, Belarus, (ILO)
- 1993 Resource person for seminar on the subject of SME development strategies, in particular the provision of "real service", Minsk, Belarus (ILO)
- 1993 Preparation of technical proposal for SME development and training programmes in Poland (DanEduc Consulting, Denmark)
- 1993 Preparation of feasibility proposal for the conversion of military garrisons in Belarus, including training needs analysis (ILO and State Employment Commission, Belarus)
- 1993 Preparation of background paper on alternative employment strategies in the construction industry (International Federation of Building and Woodworkers, Geneva)

International Labour Office

- 1991 - 1993 Preparation of reports on the recent developments in the building, civil engineering and public works industries for the 12th Session of the Industrial Committee for these sectors.
- 1992 Executive Secretary of the 12th Session of the Building, Civil Engineering and Public Works Industrial Committee Meeting.
- Research into the changing nature of the international project environment e.g. privatisation, BOT projects, diversification of multinational construction firms, technological advantage etc. and identification of training needs in construction exporting developing countries.
- Represented the ILO at national and international meetings and liaise with governments and the relevant sectoral employers and workers organisations.
- 1992 Seminar resource person on the subject of the provision of technological services to small-firm for policy makers and managers from the Ukraine (ILO, Geneva)
- 1992 Seminar resource person on the subject of developing services for transnational technological linkages for SMEs. Group of managers and SME policy makers from CIS (ILO, Geneva)
- 1992 Workshop resource person on the subject on contract labour and self-employment in construction - African Regional Workshop, Harare, Zimbabwe, (ILO/International Federation of Building and Woodworkers)
- 1992 Workshop resource person on the subject of migrant construction workers, Cairo, Egypt (ILO Regional Office for Asia and Pacific)

- 1992 Seminar resource person on the subject of technological services to small firms for SME policy makers from Belarus (ILO, Turin Centre)
- 1991 Workshop resource person on the subject of contract labour and self-employment in construction - Asian Regional Workshop, Pataya, Thailand (ILO/International Federation of Building and Woodworkers)
- 1991 Seminar resource person for SME policy makers from Central and Eastern Europe (ILO, Turin Centre and ILO Geneva)
- 1991 Designed and prepared project proposals for the development of SME technological services in Russia, the Ukraine and the Slovak Republic (ILO)
- 1991 Internal ILO coordinator for the research and preparation of the ILO publication Industrial development through small-firm cooperation - Theory and Practice
- 1991 Prepared and conducted seminars and advised on the development and design of training programmes for construction managers, People's Republic of China

Secretary-General for WAITRO

- 1988 - 1991 Identification and design of technology transfer projects. Fund raising and liaison with international agencies such as UNIDO, UNESCO, ECOSOC, and the Commonwealth Secretariat.
- 1990 Design of technology management workshop for participants from Commonwealth.
- 1990 Reorganised the structure of the Association. Initiated (accepted at General Assembly 1990) the establishment of specialist technical sub-committees including one dealing with the provision of services to SMEs.

Danish Technological Institute and Jutland Technological Institute

- 1991 Preparation of technical proposal for the management of technical assistance programme for the cement industry in India, in collaboration with Cowiconsult (DANIDA)
- 1990 Member of planning committee for the Moscow International Centre for Small Business Development (Moscow, January 1990)
- 1990 Project report mission, prepared and delivered workshops and provided advice on the design of training programmes for construction managers, People's Republic of China (ILO/UNDP)
- 1989 Project planning and training design of training programmes for construction managers, People's Republic of China (ILO/UNDP)
- 1989 Consultant for the preparation of technical assistance (training) for construction industry development, Papua New Guinea (ILO)
- 1989 Initiator and facilitator of meeting of SME policy makers from Central and Eastern Europe and certain EC States under the umbrella of the Centre for SME Internationalisation (ILO Turin Centre and EC DG V)

- 1988 - 1990 Established and coordinated the Centre for SME Internationalisation, a European network of SME trainers and policy advisers. (COMETT EC DG 5)
- 1988 Developed project proposal to develop commercial and technical linkages between SMEs in ASEAN and the EC (project later implemented by EC DG XXIII)
- 1988 Project preparatory mission for the provision of consultancy and training technical assistance to the China International Contractor's Association, People's Republic of China (ILO/UNDP)
- 1988 Design and implementation of six-month maintenance training programme for fellows from Libya
- 1988 Consultant for the design, preparation and implementation of training of trainers for small construction firms, Malaysia (ILO)
- 1987 Consultant for the design, preparation and implementation of training of trainers for small construction firms, development of training materials utilising locally produced vide, Malaysia (ILO)
- 1987 Designed and coordinated the development of training project related to SME internationalisation (COMETT/EC DG %)
- 1987 Joint programme director for feasibility training programme for Danish engineers
- 1987 Manager of training component relating to project management and maintenance of General Management Course for participants from developing countries (DANIDA/IFU)
- 1986 Consultant, training programme for trainers of small scale contractors, Malaysia (ILO)
- 1986 Management and quality control of feasibility study to upgrade wood processing facilities in Trinidad and Tobago (CID, Brussels)
- 1986 Management and negotiation of feasibility study for development of aquaculture projects in the People's Republic of China (IFU)
- 1985 Design and management of fellowship programme for information technology specialists from Bulgaria, Hungary and Roumania (ILO/DANIDA)
- 1985 Consultant for regional workshop for training programme for trainers of small scale construction firms, Thailand (ILO)
- 1985 Consultant, training programme for trainers of small scale contractors, Indonesia (ILO)
- 1984 Design and management of fellowship programme relating to industrial maintenance (LO Turin Centre)
- 1984 Management of feasibility study for testing and developing low cost windmills for India (DANIDA)
- 1984 Management of three month fellowship programme on the subject of technological services for SMEs for participants from Trinidad and Tobago (EC/CID)

Henley, The Management College

- 1981 Design and development of modules for project management diploms (by distance learning) (RICS)
- 1982 - 1985 Tutor and workshop resource person for project management diploma (by distance learning), (RICS)
- 1983 - 1988 Occasional lecturer on international project management and technology transfer
- 1988 Design of distance learning MBA pilot programme for Denmark using computer conferencing, video and text.

Construction Industry Experience

As a freelance site engineer/land surveyor worked on major infrastructure and petrochemical plants in the U.K. e.g. M11 motorway (Dowsett Engineering), M3 Motorway (Cementation), Flixborough fertiliser plant (Simon Carves), Bridgeworks A5 diversion Milton Keynes (Amey). Prior to that worked as a site engineer on civil engineering works and sewerage disposal schemes (D & H Contractors) and as a geometra (site engineer) hospital project, Milan.

SELECTED PUBLICATIONS

- 1992 Collaborator for the publication *Industrial Development Through Small-Firm Cooperation - Theory and Practice*, (Frank Pyke), ILO, Geneva.
- 1992 "Recent Developments in the Building, Civil Engineering and Public Works Industries". General report for the 12th Session of the Building, Civil Engineering and Public Works Industrial Committee, ILO, Geneva.
- 1992 Recent Developments in the International Project Market - perspectives for NICS, working paper, Sectoral Activities Department, ILO, Geneva (forthcoming)
- 1993 Birchall, D.W. and Short, R.W., Training on Tap "Strategies for open distance learning for construction industry development", ILO, Geneva (forthcoming)
- 1992 Birchall, D.W. and Short, R.W., Feasibility study or the implementation of distance learning for the member corporations of China International Contractors' Association, Construction Management Development Series, ILO, Geneva.
- 1991 Short, R.W., Seminar on International Project Marketing, Beijing, May 1991. - Note on the Proceedings, Construction Management Series, ILO, Geneva
- 1984 Birchall, D.W., and Short, R.W., "Managing construction export. The experience of British contractors in the international project environment" conference paper, INTERNET, Sorrento.
- 1984 Birchall, D.W., and Short, R.W., "Project management in the international environment cultural differences or poor project management. A research note". Conference paper, INTERNET, Sorrento.
- 1983 Project Strategy. and Operational Aspects of Project Management, modules for R.I.C.S. post qualification diploma management, The Royal Institute of Chartered Surveyors/College of Estate Management, Reading.

CURRICULUM VITAE

Name: David Johnson

Specialisation: Human Resource Development, Privatisation, Small Business Development

Nationality: British

Address: DanEduc a|s
Granskoven 18
P. O. Box 69
DK-2600 Glostrup
Denmark

Tel: + 45 43 96 22 00
Facsimile: + 45 43 96 08 08

Languages: English Mother Tongue
French Good
Russian Good

KEY QUALIFICATIONS

Initially qualified and practiced as a lawyer in the United Kingdom. Subsequent operational field experience as the field director of refugee camp in West Africa. Having completed a specialized development Masters in Social policy and planning in developing countries, is presently working with the European Commission. First, with the Humanitarian Aif Office (ECHO) based in Brussels and then with the EC TACIS programme based in Kiev, Ukraine.

EDUCATION

1992-93 MSC Social Policy and Planning in Developing Countries, London School of Economics, UK

1988-89 Law Society professional examinations, The College of Law at Guildford, UK

1984-87 Law B.A. (Hons.)2:1, The University of Kent, UK

PROFESSIONAL EXPERIENCE

1994 - date Project Manager, EC TACIS Coordination Unit, Ukraine
Responsibility for strategy and project identification, supervision and management of EC TACIS projects in Ukraine in the areas of Enterprise development (privitisation, small business development) and Human Resource Development (including government policy advice). Specifically:

1. Formulation of TA country strategy, preparation of pre-programming documents
2. Evaluation of project proposals and requests for funding
3. Preparation and participation in the identification of the annual action programme

-
4. Assistance to and monitoring of TA projects
 5. Information provision and advice on TACIS objectives, procedures and activities
 6. Preparation of information activities for the public (e.g. press, target audiences)
- 1993 - 1994 Desk Officer, European Community Humanitarian Office (ECHO), Brussels
Evaluation and project development in humanitarian assistance. Specifically:
1. Evaluation of project proposals and requests for funding
 2. Preparation and processing of grant funding through the Commission services
 3. Assistance to and monitoring of EC projects
 4. Development and implementation of a comprehensive strategy for air support for humanitarian operations in East Africa
 5. Advise on a number of humanitarian aid policy and legal issues, draft consequential studies, discussion papers and legal agreements, give public presentations on behalf of ECHO.
- 1992 Policy and Legal Adviser, The UK Refugee Council, London
Policy and legal advice relating to refugee asylum seekers in UK.
- 1991 - 1992 Operations Field Director, Anglican Development Organisation, Gambia
Field director of Liberian refugee camp, resettlement and welfare projects based in the Gambia. Responsible for allocation of equipment and funds, staff recruitment, supervision of budget, financial statements and accounts department.
- 1989 - 1991 Lawyer, Messrs Harbottle and Lewis, London
Trained and qualified as a UK solicitor. Broad commercial training. Advising on public international, EEC and UK law and commercial/aviation questions.

CURRICULUM VITAE

Name: Jens Kastberg
 Specialisation: Information, Public Relations, Communication

Nationality: Danish

Address: DanEduc a|s
 Granskoven 18
 P. O. Box 69
 DK-2600 Glostrup
 Denmark

Tel: + 45 43 96 22 00

Facsimile: + 45 43 96 08 08

Languages:	Danish	Mother tongue
	English	Excellent
	Norwegian	Excellent
	German	Good
	French	Good
	Swedish	Good

EDUCATION

1980 M.A., Royal Danish School of Journalism, Denmark
 1977 B.A. Economic/Social Geography, University of Aarhus, Denmark
 1974 Political Science, The Putney School, Vermont, USA

POST GRADUATE STUDY/TRAINING

1992 Proactive Development, ScanFutura
 1984 Presenting, National Danish Television
 1983-85 Television As Communicator, National Danish Television
 1981 Television producer, National Danish Television
 1978 The International Experiment, USA

PROFESSIONAL EXPERIENCE

1991 - Managing Director, Kastberg Kommunikation
 Major assignments:
 * Company profile MAN B&W Diesel AG, Germany

- * Counselling and PR strategy Naval Team Denmark, Royal Danish Navy, Danyard, Monberg & Thorsen
- * PR strategy and national campaigns: National Board of Crime Prevention, National Board of Health
- * Information strategy, PR and event making on project "U 543" - the salvage of the German WW2 submarine
- * EU information programmes in connection to the EU preparatory programme for new members
- * Priority Action; Information Programmes, European Commission
- * SME information programmes and PR strategy, ILO, UNDP

1988 - 1991 Director, DM Film & tv Ltd.
Start up and management of the company. Concept developing for major customers: Ministry of Industry, Andelsbanken, Unibank and leading companies in the shipbuilding and associated industries.

1987 - 1988 Editor/Assistant Director, DM Group Ltd.
Political information strategies in connection with major projects i.e. political recognition of private hospitals, health care reforms etc.

1981 - 1987 Reporter, editor (news, documentary), DR, National Danish Television
National news reporting, editorial planning and design of five national elections and two Olympics, directing and production of documentaries.

1979 - 1980 Journalist, Vendsyssel Tidende, Daily newspaper

1976 - 1978 Project employee, University of Aarhus, Dept. of Geography
Project employee on the following:

- * Economic, social and cultural consequences of connecting a minor Danish island by bridge to the mainland
- * Correlation's between public transportation and economic development of the villages in the country of Aarhus, Denmark.



EUROPEAN COMMISSION
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EXTERNAL RELATIONS
Relations with the Newly Independent States
Financial resource management

Annex D: Breakdown of Prices

ANNEX B
BREAKDOWN OF PRICES

Contractor : European Framework Group
Title : Joint EU - US working group for social impact of Chernobyl closure

ITEMS	UNIT	QUANTITY	RATE/UNIT (ECU)	AMOUNT (ECU)
-------	------	----------	--------------------	-----------------

I FEES & DIRECT EXPENSES

I FEES & DIRECT EXPENSES				
A. Fees				
EU Experts				
EU work days	man days	139	509	70,751
UKR calendar days	man days	92	424	39,008
Local Experts 1)				
	m.months	20	1,500	30,000
Support Staff				
Secretary EU	m.months	5	2,500	12,500
Secretary UKR	m.months	5	440	2,200
Interpreter	m.months	5	1,000	5,000
TOTAL A :				159,459

B. Direct Expenses				
B. Direct Expenses				
Per diem UKR 2)	per day	92	186	17,112
Per diem UK 2)	per day	52	174	9,048
Per diem France 2)	per day	52	178	9,256
Per diem Belgium 2)	per day	40	225	9,000
Communication costs	month	5	1,000	5,000
Internet 3)	month	5	400	2,000
Local transport	month	5	1,000	5,000
Visas	piece	27	130	3,510
TOTAL B :				59,926
TOTAL PART I :				219,385

II REIMBURSABLES

II REIMBURSABLES				
Flights EU - UKR	return	27	1,500	40,500
Flights Switzerland - Belgium	return	9	850	7,650
Insurance 4)	days	212	6	1,272
Reproduction costs	report	11	312.50	3,438
Courier costs 5)	report	33	70	2,310
TOTAL PART II :				55,170

TOTAL PART I + PART II:				274,555
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- 1) After approval of the CVs by the Commission
- 2) Study tour 12 participants + EU Expert for 10 days. Payable against signed presence time sheets.
- 3) Monthly rate ECU 400 = ECU 112,5 + on-line time
- 4) 212 days = 92 days (international experts) and 120 days (study tour)
- 5) 33 reports = 11 reports to be sent to USA, Ukraine and Brussels

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ANNEX C
MISSION REPORTS

EU - Ukraine - US Joint Programme
Social Impact of Closing Chernobyl Nuclear Power Plant

Mission Report

14 - 17 November 1995

Kiev, Ukraine

Draft : subject to comments from mission team

**Roger Short,
Programme Co-ordinator
Carl Bro Management
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DK 2600 Glostrup
Tel : + 45 43 96 22 00
Fax : + 45 43 96 08 08
E-mail : rwsman@carlbro.dk**

149601

Executive Summary

The EU members of the joint project team undertook a mission to Kiev during the period 14 - 17 November 1995. The purpose of the mission was to: make further preparations for the proposed December workshop for the Joint Steering Committee; follow up on previous discussions held on 4 November with the Chernobyl Information Centre in Kiev; conduct preliminary discussions and planning with the local team leader, and to endeavour to obtain endorsement for the project TOR. The major positive outcomes of the mission were the agreement with the local team leader, an expert respected by both Westerners and the Ukrainian Nuclear Industry, in particular the management of Chernobyl NPP; detailed planning and assignment of tasks for the preparation of the proposed December Workshop; and the agreement of the management of Chernobyl NPP to actively participate in the workshop. Certain problems continue to exist in relation to the endorsement of the project TOR. It would appear that the decision to endorse is closely linked, not surprisingly, with the signing of the Ukrainian - G7 Memorandum concerning the closure of Chernobyl NPP. As mentioned in the report of the October joint EU - US mission, the possibility of experts obtaining an endorsement is limited in the current negotiation deadlock concerning the Memorandum. It is considered that an intervention at a political level is required. Given that the mission has obtained, through the local team leader, an agreement by the management of Chernobyl NPP to participate in the first project workshop and to actively collaborate during the project implementation certain obstacles to endorsement may have been removed. It should be noted that the willingness to co-operate on the part of CNPP is not as yet forthcoming with respect to the EU Employment Services project in Slavutich. Therefore, it is considered that, despite the current lack of endorsement, preparation for the December workshop should proceed in order to secure the continued support of the management of Chernobyl NPP.

1.0. Introduction

1.1. Between 24 October and 4 November 1995, B. Kelly and R. Short of the EU - US project team undertook a mission to Kiev. That mission established a modus operandi for project implementation and co-ordination between the EU and US. Moreover, a potential local team leader was identified. The October mission team also undertook the necessary work to ensure that the draft EU-Ukrainian-US TOR was submitted to the Government for consideration. However, it was not possible to obtain an endorsement at that time. In order to maintain momentum in attempting to obtain an endorsement, the current mission was launched. It should also be noted that the Ukrainians had been informed that a member of the EU - US team would return for follow up discussions during week beginning 13 November.

1.2. The purpose of the mission was to:

- o seek to advance the endorsement process;
- o follow-up on discussions held with Chernobyl Information Centre and Goscomatom (held on 4 November with the participation of Mr Humphries (EU), Ms Kessler (US) and Ms Swanson (USAID));
- o discuss the project TOR and negotiate with the identified potential local project leader; and
- o finalise the programme and allocate tasks for the preparation of the proposed workshop to be held between 12 - 13 December.

In addition the team held co-ordination meetings with USAID and the EU Employment Services project. Furthermore, preliminary discussions concerning the planned study tours were held with the British and French Embassies.

1.3. Members of the EU mission team were:

Roger Short	Joint Programme Co-ordinator
David Johnson	Expert
Jens Kastberg	Media and PR Expert.

2.0. Key issues arising from the mission

2.1. The Local Team Leader.

2.1.1. Following discussions during the October EU-US mission with the EU Delegation in Kiev concerning an appropriate local team leader, contact was made with Dr Steynberg. Dr Steynberg is well known to both Westerners and the Ukrainians. He has been previously a member of the Government (Minister of Energy) and has worked at Chernobyl NPP. He is regarded as a reformer and is respected by the management of CNPP and the EU and US. Dr Steynberg has recently been engaged by CNPP to undertake an analyses of the Plant with respect to quality control needs and manpower re-structuring. Prior to agreeing to accepting the role of local team leader, Dr Steynberg sought the acceptance of the CNPP management to ensure there would be no conflict of interest.

- 2.1.2. During the discussions with Dr Steynberg, he stressed the need for the project team to understand the cultural and emotive issues surrounding the closure of CNPP. He noted that there was interest among certain CNPP employees living in Slavutich to start their own businesses. This information contradicted the perception that this was unlikely route or desire for CNPP workers. Dr Steynberg considered that this aspect should be taken into consideration in the social impact plan in order to direct opinion away from the negative aspects of closure to a positive one that identified and assisted in elaborating sustainable alternative opportunities. He also noted an acceptance by the Plant management that private sector involvement would be essential to solve the employment problems of Slavutich. It would appear that in the current re-structuring plan, for which Dr Steynberg has been commissioned by CNPP, a certain level of lay-offs are anticipated by the Plant management. Moreover, some 500 young first - time entrants to the labour market are expected in 1996 in Slavutich.
- 2.1.3. Despite the fact that Dr Steynberg is a declared opponent of closing CNPP, he stressed the importance of developing a programme for addressing the social impact of closure. His close links with Chernobyl and his forward thinking on a number of issues, such as to develop Slavutich and its hinterland as a successful pilot region for economic reform, will contribute to the active participation of all key actors in the project.

2.2. Involvement of key actors

Whilst the beneficiary of the EU-Ukrainian -US Joint Project is stated as being the Government of Ukraine (Deputy Prime Minister Kuras), it was agreed during the October mission that it would be essential for the local actors in Chernobyl and Slavutich to be actively involved in the project implementation. A follow up meeting with the Chernobyl Information Centre in Kiev, confirmed that they would actively co-operate. In addition, and of greater importance, the management of CNPP has agreed to participate in the proposed December workshop and has offered to host the event at the Chernobyl Information Centre. His participation would be dependent upon an invitation from either the Government (Deputy Prime-Minister Kuras) or the EU and US. Whilst it is clear that there could be ulterior motives in the Plant's management willingness to co-operate in the project activities, it is clear that every effort should be made to build upon this offer of co-operation and they will be critical to the success of the EU-Ukrainian-US effort. Dr Steynberg, the local team leader, will be an important catalyst in the initial stages of the project. During discussions with the EU TACIS Employment Services Project Management, it emerged that the Plant management was regarded as a major obstacle to implementing changes in Slavutich.

2.3. Proposed December Workshop

- 2.3.1. Detailed planning and assignment of tasks for preparation were agreed with the local team leader. It was decided that a visit to CNPP and Slavutich be included prior to the two day workshop. It was agreed that the visit would take place on 12 December and the workshop on 13 - 14 December. The local team leader will make the logistic and practical arrangements for the three days and ensure the preparation of local background papers.

2.3.2. The issue of whether the December workshop should proceed should the G7 - Ukrainian Memorandum concerning Closure not be signed. The project team are obviously not party to the overall political negotiations and appreciate the risk of "giving the wrong signals" if the workshop is held despite the Memorandum not having been signed. *However*, should the workshop not be held, there is the risk that the collaboration of the CNPP management, and momentum in general, may be lost. In addition, as mentioned in the October mission report the workshop could serve as an important step in securing endorsement of the TOR in the event that it has not been obtained by that date.

2.4. Endorsement of draft TOR

During discussions with the project manager of the EU TACIS Employment Services project, it emerged that he had received information that Deputy Ministers had received instructions not to state an opinion on the draft TOR. Therefore, there is obviously a political motive surrounding the delay in non endorsement. As a result it is considered that there limited possibilities of the EU - US team obtaining endorsement as a this will have to be done at a political level. Having stated this, the fact that CNPP has agreed (albeit verbally via the local team leader) to collaborate in the project, it may now be easier to secure an endorsement if there is an intervention at a political (Ambassador) level on the part of the EU - US.

2.5. Co-ordination matters

Meetings were held with Ms Swanson USAID and the EU TACIS Employment Services project to inform of the mission's activities.

3.0. Recommendations and follow-up

3.1. The main issue relating to follow-up concern guidance from the EU and US to the project team as to whether preparation for the December workshop should proceed. Sub-section 2.3. above outlined some of the issues. If the Memorandum concerning Closure is signed as scheduled, there will not be sufficient time to prepare the workshop if preparation has to be delayed until after signing. If the workshop is not held in December, it cannot realistically held until late January or early February. This will delay project implementation considerably. The project team does however appreciate there may be political reasons for not conducting the workshop in December. Despite this it is urged that attention be paid to the possible loss of future co-operation on the part of CNPP and the local team leader as a delay may be regarded as a lack of seriousness or resolve on the part of the EU - US. The importance of the workshop as a forum to working towards an endorsement of the joint TOR, should it not have been obtained by that date, should not be under-estimated.

3.2. The local team leader will contact the EU Delegation in Kiev concerning invitations for the workshop. Moreover, whilst he may be reluctant to participate in meetings with the Government, Dr Steynberg could be consulted in relation to appropriate ways to speed up the endorsement process.

Joint EU - Ukraine - US Project

Development of Action Plan to address the
Social Impact of the Closure of Chernobyl NPP

The Sustainable Development of Slavutich and Region

Mission Report

4- 15 December 1995

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1.0. Background and Context

- 1.1. A decision had been taken to hold a project preparatory workshop in the Ukraine under the auspices of the EU-Ukraine-US Joint Project to develop a plan of action to address the social impact of closing Chernobyl NPP. The workshop was planned for 12 -13 December 1995. Two previous missions had been undertaken relating to this issue. The first during the period 24 October to 3 November 1995 (EU - US Joint Mission) and 14 - 17 November 1995 (EU Mission). Reports of those missions have been submitted to EU TACIS and the relevant US bodies. Finally, a member of the EU team had been in Kiev during the period 27 November - 1 December concerning other matters but had devoted some time to the planning of the workshop.
- 1.2. The political issues surrounding the G7 - Ukrainian negotiations relating to the Memorandum concerning the closure of Chernobyl NPP had limited the possibilities of securing the endorsement of the joint draft TOR of the project. Despite this, a decision to proceed with the project planning workshop was taken. However, despite the fact that practical arrangements for conducting the workshop were well advanced by 1 December, it was not clear who in fact would attend. The project team considered that it was essential to secure the participation of the local interested parties (in particular senior staff of Chernobyl NPP and the authorities of Slavutich) if the development of the action plan were to be a success. In order to secure the participation of key interested parties, it was decided that the team leader should be on location in Kiev during the week prior to the workshop. A Note for the File (Annex A) was prepared and distributed on 8 December. The Note outlined the key issues raised during the week.

2.0. The Workshop 12-14 (including visit to CNPP on 12 December)

2.1. Methodology adopted

The methodological approach for the workshop was designed to ensure the maximum engagement of the participants. The need to establish a working atmosphere for the project that would result in "local ownership" of the final action programme was deemed of paramount importance. In order to provide a more positive working environment, the title of the workshop had been changed from "Social Impact of the Closure of Chernobyl NPP" to "Sustainable Development of the Slavutich Region". The future well-being of the workers of CNPP and the inhabitants of Slavutich Region were a pivotal issue for the workshop. The workshop was designed around a number of plenary sessions and work groups. The logical framework approach was utilised to determine the key problem areas associated with the sustainable development of the Slavutich Region.

- 2.2. Prior to the two day workshop, participants had the opportunity to visit Chernobyl NPP and Slavutich. In Slavutich, two enterprises were visited, one involved in transport and the other in laser technology. These types of enterprises, of which there are apparently approximately 100, are viewed by the local authorities and the management of CNPP, as potential employment generators for workers who will be displaced during the phased shut down of CNPP. The visits offered the opportunity for the non-Ukrainian experts, and certain Ukrainian participants, to obtain a better

insight of the issues concerning the social and employment spheres.

3.0. Workshop participants

The majority of the participants were representatives of Slavutich and Chernobyl NPP. In addition, two Members of the Chernobyl Committee of the Supreme Soviet and a member representing the Council of Ministers (Social Affairs) attended. (see Annex B for list of participants)

4.0. Main Outputs of Workshop

4.1. The approach adopted, as outlined in 2.0. above, facilitated a very open and frank working environment. A logical framework was produced (see Annex C) and an outline schedule for the project prepared (this will be further elaborated upon at a meeting to be held on 5 January in conjunction with the team leader of the TACIS Employment Services Project).

4.2. Problem areas identified.

Six main problem areas were identified by the participants. These were identified as being:

4.2.1. *Psychological attitudes*

The issue of the psychological attitudes of the population of Slavutich and the workers of Chernobyl NPP is one that is often raised. It is suggested that the uncertainty surrounding the future of CNPP has diminished worker motivation and may have implications for safety at the plant.

The uncertainty surrounding potential level of state support (or lack of) in the event of closure is a factor that is of major concern to the workers at CNPP. This must be viewed in terms of the comprehensive welfare benefits currently provided by CNPP.

The expectations of workers, in terms of prospective alternative appropriate employment and salary levels is viewed as an important issue in influencing the attitudes and frustrations of CNPP workers and their families.

Slavutich has one of the highest birth rates in the Ukraine. Of major concern to the population of Slavutich is limited job opportunities available to the younger generation.

Health issues and general concern of their own well-being and that of their children was cited as being a factor that influences the psychological attitudes of the workers of Chernobyl.

4.2.2. *Human Resources*

Particular problems associated with human resources were identified. Firstly, there currently exist limited alternative opportunities for the large number of highly educated staff of CNPP that risk being made redundant. Secondly, there exists a high level of female and youth unemployment among the population of Slavutich. Thirdly, there exists a substantial number of job opportunities in the Slavutich Region which the local population are not willing or capable of taking advantage of. As a consequence workers have to be brought in from outside the immediate Slavutich Region to fill the vacancies. The problem of the mis-match of skills and knowledge within the local labour market was seen as one requiring urgent attention.

4.2.3. *Potential Transfer of Communal Services from CNPP.*

Virtually all of the services provided to the community are financed and controlled by CNPP. This not only includes welfare, schooling and health services but also the financing of cultural and sporting activities.

The issue of whether the employees of the new emerging enterprises could benefit from a similar level of services was discussed to some extent during the workshop. This issue would have to be addressed during the work involved in preparing the Plan of Action.

4.2.4. *Lack of Labour Mobility*

The lack of labour mobility can be attributed to a number of factors which have already been mentioned in previous sections. In summary the key issues relate to: the high levels of salaries of CNPP workers compared to other groups in the Ukraine; the high standard of living in Slavutich; the high level and quality of leisure activities offered in Slavutich; the level of social protection enjoyed by CNPP workers; and the high level of education of many of the workers.

4.2.5. *Lack of Diverse Economic Activity.*

Virtually all economic activity in the Slavutich Region, and in particular Slavutich itself, is confined to the operation of CNPP and the provision of services to the Plant and the town of Slavutich. Slavutich is a purpose built town constructed to house CNPP workers. This factor, combined with the general situation that existed until recently in the Ukraine, has meant that there is no history or culture of entrepreneurship. In addition, the general legislative environment and the inherent uncertainties that currently exist were viewed as being major barriers to the development of diverse economic activities from those directly related to CNPP. Similar to other parts of the country, limited banking and enterprise services exist in the Region. A further barrier to investment was Government registration of land around Slavutich which is still considered to be in the exclusion zone.

4.2.6. *Ecological Image*

A strategy to diversify the economy to ensure the sustainable development of the Slavutich Region will depend to a certain extent upon the ecological image of the Region. This issue was debated in considerable length by the workshop. Efforts would have to be made to address the national and international perception of the Region. This will be an essential activity in attracting inward investment.

5.0. **Conclusions**

A major conclusion of the workshop was the willingness of the participants to be actively involved in identifying the key problems and to contribute to the elaboration of the action plan over the coming months. There is an acceptance of the fact that the end solution will be a Ukrainian solution. Within this context it has been appreciated that the solution, one of sustainable development of Slavutich to ensure the continued well-being of the population of the Region, will be dependent upon realistic proposals that could make inward investment attractive. The EU and US can contribute as catalysts in this process. However, at this early stage no commitment to contributing to subsidised funding was anticipated by the participants. Obviously, these attitudes may change during the course of preparing the action plan.

6.0. **Follow-up and Recommendations.**

- (a) Follow-up workshops have been planned to take place each month. Each will involve a specific topic and/or discussions relating to the analyses of surveys undertaken. The next will be held during week commencing 15 January 1996 and will involve the training in the use of survey material that is currently being prepared by the EU and US team.
- (b) A co-ordination and detailed planning meeting is to be held in Geneva on 5 December. Following this the Inception Report and logical framework will be finalised and submitted to EU and US for approval.
- (c) Information workshops for Central Government are proposed. The first will take place following the completion and analyses of the first surveys, probably in mid-February.
- (d) In response to specific requests from the workshop, the study tours are to be substituted or combined with intensive training in subjects related to local employment and economic development and measures to deal with structural adjustment.
- (e) Efforts should be maintained at a political level to secure the endorsement of the joint terms of reference.

EU - Ukraine - US Joint Project

Social Impact of Closing Chernobyl NPP
(Sustainable Development of Slavutich Region)

Weekly Report

(Period 5 - 12 January 1996)

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1.0. Introduction

In view of the political nature of this project, the programme manager has decided that reports will be provided on a weekly basis. This will ensure that all interested parties are continuously up-dated on progress. Moreover, the reports will identify any areas in which assistance or advice at a political level may be required. This report covers: a co-ordination meeting held in Geneva on 5 January with the EU TACIS Employment Services Project; discussions with the ILO Management Development Department, Geneva on 6 January and 9 January; and meetings with the ILO Turin Centre on 10 January.

2.0. Co-ordination and planning meeting 5 January.

2.1. At the workshop held in Ukraine on 13-14 December, the urgency of initiating surveys of the workforce of CNPP and the population of Slavutich Region was emphasised. It was agreed that a planning meeting for this activity would be held in Slavutich on 16-17 January. In order to clarify the division of work between the two EU funded projects it was agreed that a co-ordination meeting would be held in Songy (Geneva) on 5 January. Mr Mouette of BBC, Mr Steinberg local team leader and Messrs Kastberg and Short of Carl Bro Management attended the meeting. Mr Kelly provided inputs in terms of forwarding draft survey material for discussion. The meeting covered the following issues:

- (i) Modus operandi of conducting the surveys and key issues to be covered at the planning meeting of 16-17 January;
- (ii) Contents of training abroad;
- (iii) Materials for translation linked with the planned workshops;
- (iv) Information dissemination strategy for CNPP workers and the population of Slavutich;
- (v) Promotion Strategy; and
- (vi) Information dissemination and involvement at Government level.

2.2. Modus operandi of conducting the surveys

At the December workshop it was agreed that surveys and/or research in the following areas would have to be conducted:

- (a) Detailed labour market survey of CNPP and the population of Slavutich Region;
- (b) Survey of the estimated 100 enterprises that already exist in the Slavutich Region;
- (c) Attitude survey of workers of CNPP and the population of Slavutich;
- (d) Attitudes and views of potential national and international investors;
- (e) Establishment of numbers of potential employment places that will arise as a result of the G7 Agreement; and
- (f) Research into the levels of contamination in the Slavutich Region

An additional item not discussed at the workshop was that of attracting foreign investors in areas related to the components of the G7 Agreement. There may be a potential for FDI related to production of energy saving devices. However, because of the inherent problems associated with the image of Slavutich, investors may wish to locate elsewhere. The possibility of such investment and implications for re-location of CNPP workers should be examined during the project, subject to approval of the EU and US.

2.2.1. Detailed labour market survey of CNPP and the population of Slavutich Region

A key issue related to this activity was the methodology, scope, level of inputs and urgency. Mr Steinberg informed the meeting that considerable material exists at CNPP and with the Authorities of Slavutich concerning the profile of the workforce. However, it was generally agreed that this would not be in sufficient detail for the purposes of preparing the action plan. Mr Steinberg agreed to provide information at the planning meeting concerning the availability and quality of existing workforce and population data. It was further agreed that this information may be useful for preliminary analyses.

It was agreed that a in-depth detailed analysis would be necessary. This would involve questionnaires and substantive household surveys/interviews. It was further agreed that as the G7 Agreement was now signed, the survey and interviews should include the attitudinal survey. Mr Mouette has already contacted UNESCO for possible collaboration in this latter field. Draft survey material will be provided at the planning meeting for discussion and where necessary further elaboration. Furthermore, resourcing and timing of the surveys will be agreed upon at the meeting.

In view of the lay-offs planned during 1996 the survey is of utmost urgency.

2.2.2. Survey of the estimated 100 enterprises that already exist in the Slavutich Region

At the December workshop it was agreed that during the project period efforts would be made to assist two to three pilot enterprises to develop business plans. The EU has agreed to provide inputs for this purpose through its Business Development Agency TACIS project based in Kiev. USAID has also indicated a willingness to provide similar assistance through one of its on-going facilities.

There are currently an estimated 100 enterprises (or potential enterprises) in the Slavutich Region. Material for surveying these enterprises will be discussed at the planning meeting. On the basis of this survey, the pilot enterprises will be selected. This survey will also serve to determining the scope of and appropriate type of enterprise services to be provided in the Region.

2.2.3. Attitudes and views of potential national and international investors;

CNPP has indicated its willingness to participate in the establishment of a Regional Development/Investment Board. The extent of involvement has yet to be determined. However, a key issue related to the sustainable development of the Slavutich Region is the extent to which outside investment can be attracted. It is understood that a number of Ukrainian entrepreneurs and financiers are willing to invest in a number of specific ideas. Mechanisms to quantify such investments are to be discussed at the planning meeting. With respect to international investment and/or involvement these will be linked to a clarification of the next two points.

2.2.4. Establishment of numbers of potential employment places that will arise as a result of the

G7 Agreement

It is obvious that the other components of the G7 Agreement will provide workplaces for former CNPP workers. In order to determine the level of potential employment and possible re-training requirements, the EU and US team members will need to study existing and future plans related to the other components contained in the G7 Agreement. This will need to be undertaken as quickly as possible.

2.2.5. Research into the levels of contamination in the Slavutich Region

A major factor for attracting any form of FDI will be the environmental sustainability of the Slavutich Region. Some background information has been obtained from the UN Civil Defence Agency by Mr Kastberg. However, the EU and US team members will need to have access to information regarding this aspect.

2.3. Contents of training abroad

At the meeting Mr Steinberg re-emphasised the point raised at the December workshop that study tours per se should be avoided. It would more appropriate that specific training be given to officials of Slavutich, the Government and CNPP who will be involved in the implementation of the Action Plan. It was further stressed that too many travel days (and costs) should be avoided. Training was identified as being required in topics such as enterprise development, regional development, enterprise services, human resource management and re-training. Possible means to address these requirements were examined by Mr Short during the week following the meeting.

2.4. Materials for translation linked with the planned workshops

It was agreed at the December Workshop and at the co-ordination meeting that future workshops will include:

- (a) issues related to project progress and the development of the Action Plan and;
- (b) training/seminar in specific topics related to the development of the Action Plan.

It is known that the ILO has readily available materials in a number of key areas that have been identified as relevant both to the training abroad and the workshops. On 6 January Messrs Steinberg and Short had preliminary discussions with Mr Joseph Prokopenko of the ILO Management Development Branch concerning the availability of such materials. Mr Short held follow up meeting on 9 January. The EU and US team members will also determine what readily available materials exist that have been developed within the scope of funding of the respective Agencies' TA programmes.

2.5. Information dissemination strategy for CNPP workers and the population of Slavutich

In view of the fact that the G7 Agreement is common knowledge, it was agreed that mechanisms should be introduced to inform CNPP workers and the population of Slavutich of the project activities. At the planning meeting of 16-17 January, plans will be elaborated to transmit parts of the future workshops on the local closed circuit television. In addition a regular newsletter concerning the project activities will be produced. This will be distributed locally, to the relevant Government Agencies and the EU and US (G7 if deemed necessary).

2.6. Promotion Strategy

The broad issue of promoting the Slavutich Region was discussed at the meeting. Promotion outside of the Ukraine cannot take place until a clear picture of the environmental sustainability has been established. However, during the discussions the possibility of some form of representation in Brussels, similar to those of EU Regions, was raised. It was indicated that CNPP (Slavutich Region) would be interested to have such a representation and would be capable of providing the required funding. Mr Short is examining the appropriate mechanism for such a representation and has informally contacted an existing structure to determine the feasibility of being associated with them.

2.7. Information dissemination and involvement at Government level.

The success of the development of the Action Plan depends greatly upon the active involvement of all parties at a local level (i.e. CNPP and Slavutich). However, it is equally recognised that support from Government is required. In conjunction with the February Workshop, an information meeting will be held in Kiev for relevant high ranking officials. In addition, subject to the approval of the EU and US, contact will be made with the UN Office in Kiev to determine the possibility of being associated with their World Wide Web site to which the Supreme Soviet and the Council of Ministers are linked.

3.0. Contacts with the ILO

The contact with the ILO was established for the following reasons :

- (a) The Ukraine, as a founding member of the ILO, values its membership of the Organisation very highly. One of the ILO's Constituent Members in the Ukraine is the Ministry of Labour. A potential association of the ILO with certain of the project activities may serve to assist in providing enhanced prospects of approval by the Government (the matter of UN involvement to provide a neutral view was raised by the EU Energy Expert during the December 1994 identification mission);
- (b) Joseph Prokopenko is Ukrainian, advises the Government and is a world re-known expert in productivity management, enterprise and management development and economies in transition; and
- (c) The ILO has a training facility in Turin which could be utilised to host the required training. Such a location could provide a neutral environment .

3.1. Discussions with Mr Prokopenko.

As a follow-up on the joint discussions held with Mr Steinberg on 6 January, Mr Short had a meeting with Mr Prokopenko on 9 January. The purpose of the meeting was to establish those ILO materials available which could potentially be used at the planned workshops and also the potential cost implications of Mr Prokopenko providing an input to one of the planned workshops. Mr Prokopenko provided the following materials:

- (i) Productivity Management;
- (ii) Human Resource Management in Economies in Transition: The East European Case;
- (iii) Management of Privatisation;

- (iv) Environmental Business Management:
- (v) Guidelines for the analysis of policies and programmes for small and medium enterprise development;
- (vi) Guidelines and instruments for improving organisational performance;
- (vii) UNIDO-ILO Maintenance Management Manual; and
- (viii) The ILO Improve Your Business Package.

These materials will be discussed at the planning meeting and the cost implications of translation will be determined. These will also be discussed in the context of existing EU materials such as the Social Crisis Management Manual for which there is already a request to translate certain elements.

The possibility, (on a non-committal basis as approval from the EU and US would have to be sought,) of Mr Prokopenko providing inputs at the February workshop. He would be willing and also to provide any other inputs that may be required during the project. Certain inputs may only require the re-imburement of travel and accommodation costs. Clarification on this issue will be provided on return from the planning meeting (22 January).

From his experience he proposed that possible topics for the workshops could be:

- (a) Privatisation, Re-structuring and Entrepreneurship Development (for senior CNPP managers, local municipal managers)
- (b) Productivity and Quality Management
- (c) Management Competence Development;
- (d) Human Resource Management and Human Resource Development; and
- (e) SME Development.

These will be discussed at the planning meeting and their cost implications (if any) determined.

3.2. Meeting at the ILO Turin Centre (Mr Azzoni)

For the reasons to establish neutrality mentioned in the introduction to this section, a meeting was held at the ILO Turin Center to determine the type of inputs that could be provided for hosting the proposed training. Moreover, the potential cost implications had to be established. It should be noted that if the original travel envisaged is to be reduced, there may not be any cost increases. A re-scheduling of budget items to reflect a number of options is currently being undertaken. The possibility of providing training for senior local actors and certain members of Government was discussed. The training could be combined with the elaboration of the draft action plan. Given the concerns expressed by the Ukrainians to avoid unnecessary travel, this approach would appear to be expedient. However, subject to the evaluation of costs and approval by the EU for their component to be conducted in the ILO Turin Centre, it may be appropriate for the US also to combine forces and

also conduct their planned training at the same location . The required US expertise could be flown in to provide inputs.

4.0. Follow-up and Recommendations.

- (a) Given the need to allow some local inputs to decide on the various alternatives which can be provided within the scope of existing budgets, the inception report will have to be completed after the planning meeting;
- (b) It is suggested that Roger Short spend some, if not all, of week commencing 29 January in Brussels to obtain information that has been discussed in this report and to discuss the inception report;
- (c) Some feed-back is obtained in terms of principle regarding the underlined sections of this report.
- (d) Next report will be provided following the planning meeting and discussions in Kiev with relevant Ministries (18-19 January).

CHORNOBYL SOCIAL IMPACT PLAN

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CONTRACT REFERENCE: CCN-0002-Q-00-3152-00
DELIVERY ORDER NO. 4; MODIFICATION NO. 2

DECEMBER, 1996

BOOK 2 OF 2

International Conference
on

Industrial Districts and Local Economic Regeneration

(Geneva, 18 & 19 October 1990)

Paper No. 4

Small firms and the provision of real services

by

Sebastiano Brusco

University of Modena

Organised by the
New Industrial Organisation Programme
International Institute for Labour Studies

with the support of the
Commission of the European Communities

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I. Introduction

1. This paper has two aims: firstly, to venture a definition of the industrial district while examining a number of its controversial features; secondly, to describe a number of measures of industrial policy that, in Italian experience, have proven capable of stimulating this kind of business system. It is also worth noting that many people are convinced that it may be possible to apply the said measures of industrial policy in many different circumstances, even in order to stimulate the transformation of *groups* of small companies into company *systems* possessing the characteristics typical of the industrial district.

II. Towards a model of the industrial district

2. Economists base their definition of the firm on the provisions laid down by law. This is unproblematic as long as the company takes the legal form of a limited company, but clearly inadequate when confronted with several single companies owned by the same individual or with legally discrete productive units that are in fact linked by various kinds of co-ownership, agreements or partnerships. In either case the fate of the company is tied to events directly affecting other productive units, and it therefore becomes extraordinarily difficult to pinpoint the object of analysis. There is no shortage in economic literature of attempts to provide a precise definition of these sketchy and uncertain units of analysis. One might cite Richardson's concept of "co-operation" or the notion of "quasi-vertical integration" developed by Blois.

The industrial district is another unit of analysis of the same type - lacking any clear-cut outline - but traces somewhat arbitrarily in such a way as to identify an "outside" and an "inside" within a continuum. As a result, the only possible strategy is to describe a simplified or - to take up Kaldor's ageing term - a "stylised" model.

Bearing in mind these precautions, it may be stated that an industrial district is a set of companies located in a relatively small geographical area; that the said companies work, either directly or indirectly, for the same end market; that they share a series of values and of knowledges so important that they define a cultural environment; and that they are linked to one another by very specific relations in a complex mix of competition and co-operation.

At this juncture, it is obviously essential to discuss and examine more closely the features enumerated. Many of the following sections will be devoted to this task which - it is worth stating explicitly and bearing in mind - draw strongly on Italian experience.

3. At the outset it is wise to consider the productive base of the district: its most immediately tangible feature.

An industrial district normally comprises many mini-companies (with fewer than 20 employees), a fair number of small companies (between 20 and 50 employees), several medium-sized companies, and a few large companies. The relative proportions of mini-, small, medium-sized and large companies vary considerably from district to district. In a district such as Carpi one may find that around 60 per cent of the workforce is employed by mini-companies; in other districts it may be the medium-sized companies that employ the bulk of the workforce. The overall size of the district varies from 5,000 to 30,000 or even 50,000 workers. The number of workers, of course,

comprises both employees and autonomous workers. The structure of the industrial district is not therefore, in so far as its overall size is concerned, very different from that of a single medium-sized to large company.

As has already been stated, all these companies operate within a relatively small geographical area and the fact that this is considered relevant points to an important difference as regards the convictions of traditional analysis that tends to transform all facts related to localisation. But there is another and perhaps even more important point that should be made: that the district refers back to the vertically integrated sector in which the productive process takes place. An industrial district that manufactures shoes, for example, comprises not only shoe producers but also those companies involved in the advertising of shoes, those that produce shoe boxes, the manufacturers of glue, buttons, buckles, elastic bands, leathers, and patent leathers and also of course the manufacturers of machines for producing shoes (assuming, of course, that all the companies operate within the same geographical area). Viewed from this perspective, the district recalls in theoretical terms Sraffa's subsystem and, under certain conditions, the tradition of French economists.

Industrial district companies can be roughly divided into three main categories. The first consists of companies that, whether they perform only a few or a great many different operations, manufacture the finished product and deliver it either to the retail system (if it is a consumer good) or directly to the companies that use the good (as almost always occurs in the case of investment goods). Firms belonging to the second category carry out one or several of the production phases needed to arrive at the finished product. In a metal and mechanical district, for example, some companies do lathe work, others do drilling, others produce metal structures, prepare dies or turn out moulded items. The third group of companies is the most heterogeneous of the three and comprises those companies that operate outside the sector to which the finished product statistically belongs, but which work for the vertically integrated sector.

The majority of small firms are involved in a particular phase of production. Yet one of the essential characteristics of industrial districts is that they also include many small companies supplying the market for finished products. On the other hand, the majority of large companies work for the end market. Yet even many of the larger companies operate at an intermediate phase of production. Size, therefore, is not a strong indicator of the role played by a particular company in the manufacturing process.

Many small firms that manufacture finished products supply the world market. It would be quite mistaken to imagine that small companies producing finished products turn out goods of inferior quality destined only for the local, or at most, the national market.

In any attempt to provide a definition of the industrial district, it is essential to examine the sites and modalities of competition and co-operation, both of which, as has been seen, may characterise inter-firm relations.

4. As has been noted, relations between companies within industrial districts are marked by the presence of strong elements of competition and co-operation. It is now necessary to pinpoint the modalities and the sites of each of these types of relation. This will also shed light on the many hypotheses that see the district as either a network serving to link firms, or simply as a phenomenon of strong division of labour or, on the contrary, as an informal structure of co-operation and even mutual assistance.

5. Typically, an extraordinary number of markets, in which firms buy and sell labour and activities, will exist side by side within the district. There is a market for each phase of the productive process: in a fashion wear district, for example, there are markets for loom or frame work, needlework, trimming and finishing, embroidery, ironing, and in some cases even for drawing. The buyers in these markets are either those firms that manufacture the finished product or those production-phase firms that undertake to produce a single complex component demanding more manufacturing processes than the aforesaid companies are themselves able to perform. In each of these markets, companies performing a similar work process or producing a similar product (not necessarily a finished product) will engage in lively and even fierce competition over price, quality and delivery and turnaround times. Of course the smaller the production run, the higher the quality and the shorter the delivery time, the higher the price. It is not difficult to explain why companies offering the same product compete so vigorously. The fact is that two of the key conditions underpinning competition are fully respected within industrial districts; the number of operators is high and the market quota of any individual company is low. It should be unnecessary after what has been said, yet it is necessary to allay widespread suspicion on this point - that it should be impossible within the district for any companies to form agreements regarding sales conditions, production quotas or total quantities to be produced. This applies of course both to production-phase companies and to finished-product companies.

6. It is almost impossible to classify forms of co-operation. The most one can venture is a survey of the more frequent forms, grouping them according to the economic function that they fulfil.

To start with, many business people are linked by behaviours characterised by straightforward friendliness: as when very small companies borrow one another's tools or even such raw materials as are not readily available on the market. Often - to fill a particularly large or urgently-required order - a firm may appeal for the co-operation of one of its competitors. This may involve a formal agreement (to the extent that both companies may then receive the order) or an informal agreement (so that as far as the commissioning company is concerned, only one firm guarantees the quality and delivery terms of all the work undertaken). The logic of agreements of this type is obvious: this kind of merely temporary co-operation, in which roles are frequently changed, enables each company on occasion to accept orders out of proportion with their normal manufacturing capacity or with the manufacturing capacity available once prior commitments have been honoured.

Between pairs of companies there also occurs that form of co-operation that often receives much of the credit for the industrial district's capacity for innovation: the relation between the commissioning company and the production-phase company. On many occasions an item or component is not ordered on the basis of a precise design, with detailed specifications. Rather, the customer explains to the subcontractor the job that the item is intended to perform, and is then ready to consider whether that job might be filled by a standard component already on the market and therefore less costly, or, on the other hand, whether the item might be produced with a number of departures from the original design-hypothesis in order to make it easier to manufacture. The element of consultancy in the relationship that culminates in the order is particularly striking when the production-phase company is a manufacturer of dies. Indeed only seldom are dies ordered to meet precise designs. More commonly, customers provide a particular item as a prototype which they wish to have reproduced. However, to reduce costs, they are usually willing to modify the prototype, providing this involves no

sacrifice of efficiency. In some cases, co-operation between customer and production-phase company may result in considerable alterations to the finished product eventually manufactured and may prompt technical innovations. Almost always of the incremental type, these innovations may nonetheless have considerable value in the market.

There are many reasons why the manufacturer of dies or indeed any other subcontractor is so generous with his time and so willing to tackle a problem that does not really concern them directly. It may be that the trouble taken in the first instance has a promotional effect leading to an eventual production order. Moreover, available information suggests that consultancy time is usually accounted among general expenses: in the end, therefore, whatever algorithm is used in the calculation, the cost gets passed on to the customers. This does not imply, however, that a greater degree of consultancy might not be preferable (and direct costs inflated by higher general expenses) to less consultancy and a smaller additional increase in direct costs. Also because, hypothetically, in many cases such direct costs - precisely as a result of consideration and dialogue - may be brought down.

Unlike those forms so far described, co-operation can involve many companies and require an agent to act as co-ordinator. The most widespread cases of this are: purchasing consortia in which many companies link up to obtain their inputs at a lower price: credit consortia, where firms join together to guarantee each other's bank loans, and to negotiate with banks to secure a lower interest rate; agencies, in Italy often taking the form of trade associations, that keep the accounts and wages-books for their member companies and, for a small consideration, fill in their income tax declarations. Moreover, trade associations often co-ordinate groups of associates in order to lower the costs of participating in trade fairs, or to promote their products in a particular area, or to purchase the necessary space for the development of their companies, or to construct - together, and therefore at a lower cost - the buildings needed to house their various factories. Even the classical role played by trade associations - trade union representation and representation of the trade vis-à-vis government authorities - can be seen as a form of co-operation.

The factors prompting the above-mentioned consortium-type practices are easy to understand and pinpoint. Some jobs - like book-keeping or the purchase of inputs - cannot be performed very efficiently by each company on its own. The consortia described - or those organisations that function as consortia - simply provide a way in which small companies can assume the minimum size that is efficient in this or that activity. The aim therefore is to take advantage of all available economies of scale: "real" economies of scale, as in the case of book-keeping and the construction of factory buildings, and also "pecuniary" economies of scale, as in the case of purchasing or loan consortia.

It is worth pointing out - given the lengthy debates that politicians and economic dealers have held around this issue - that sales consortia, which might after all seem in a position to deliver, again in the field of marketing, the same economies of scale from which larger companies benefit - are missing from the list given above. There is a reason for this. A common venture - be it a purchasing consortium or a trade association - presupposes that all those participating in it receive (or at least can expect to receive) equal treatment. But unless the products manufactured by the companies in a sales consortium are very similar, or are developed as a co-ordinated set from the design stage onwards, this is unlikely to be the case. Basically, this means that in order to co-operate over sales, through a single agency, the companies involved need to waive

their independence to a far greater extent than when taking part in other forms of consortium. Unless, of course, the companies in question produce virtually identical goods, as is the case, for example, with agricultural companies, where sales consortia are indeed widespread.

Lastly, small companies may form associations or be encouraged to work together in the pursuit of other goals, more immediately connected with the urgent need to make use of new technologies or to reach new markets. This is not, however, the place to examine the problems posed by the sharing of such services - which might somewhat loosely be termed "superior" or advanced. We shall return to this issue in greater detail in the second part of this paper.

7. It was stated at the beginning of this paper that industrial districts share a number of clearly identifiable cultural features.

In districts, manufacturing and marketing expertise is very widely spread: indeed this body of technical knowhow forms an integral part of overall social heritage. In some cases it dates back to very distant times, as in the case of Prato where Francesco Datini was already exporting fabrics in the fourteenth century. In other cases, expertise is more recent and linked to the development of large local companies, or to important training schools. Furthermore, social mobility - in comparison to other areas - is very highly-developed, and there are many entrepreneurs who have worked their way up from the shopfloor. This list of features could be continued, and each point would merit close examination. But this is perhaps a task more suited to other disciplines which, at least as far as Italian districts are concerned, have in fact devoted considerable resources to this issue, and with good results.

There is, however, a further characteristic that has an immediate impact on production costs and which therefore merits particular attention. It should be borne in mind that in industrial districts contracts between companies very often refer - although there is no specific provision for this - to the customary conventions of the particular area. The existence of these implicit specifications, deriving from local customs and history, and rooted in a language that is well understood by everyone, enables firms to draw up spot contracts with very low specification costs. Moreover, swindles and frauds are particularly rare and this also helps to bear down on overall transaction costs. (Indeed, recalling what has already been said about consultancy work often covered in the work order, in many cases transaction costs may actually be deemed to be negative).

This rather special climate is a result of the fact that - alongside state regulations - there is a second set of rules that derives from the community to which all the companies belong. This set of rules, shared by everyone and to which everyone has to adapt - originates in civil society, and also carries a series of sanctions: whoever breaks the rules of the game is excluded from the community and can no longer work within it.

It is perhaps worth pointing out that cases where state rules are flanked by another set of rules deriving from a smaller community are by no means rare. Quite apart from the Mafia or barbaric vendettas which adopt as sanction the killing of the culprit, one need only think of the impact of tradition in discriminatory practices against one group or another involving marriage customs, admission to particular schools or access to particular jobs. More specifically, within the business community, one might think of livestock markets where contracts are concluded with a handshake and where

certain frauds are permitted (in that there is general consensus that if you fail to notice the fraud you deserve to pay the consequence) and other frauds not permitted. Or the stock-exchange, where the very speed of transactions means that until the end of the morning no written records are made of any contracts stipulated.

Customs can of course - very slowly - be changed by legislation. But a local system of rules can survive as long as it does not conflict in any way with the law, and as long as it is useful to the community that has developed it. It will last at least until a period of crisis prompts many people to violate it, thereby rendering it ineffective and unreliable.

It is perfectly possible to reduce this whole set of phenomena to a narrowly economic explanation. According to Von Weiszacher, the low cost of transactions may be explained by the fact that industrial district firms pay great attention to their credibility and reputation, both of which have a high economic value and form the premise of their success. But this interpretation tends to impoverish the overall picture, rather than making it easier to grasp.

In any case, whether it is interpreted as a local rules system or as particular attention to the launching and reputation of the company, the lack of opportunism, the expertise and the social mobility mentioned at the beginning of this section combine to give the area a character that sets it apart from other areas and from the surrounding region. Referring to these characteristics, Becattini has defined the districts in terms of a sense of belonging that distinguishes "us" from "the others", therefore outlining, in this respect also, a limit and a boundary.

8. The point that we have tried to highlight is that very vigorous and fierce competition coexists with widespread and well-developed forms of co-operation. Even if there are no cartels to set a lower price limit and no sales consortia, many other forms of collaboration are in fact practised, and have been listed.

What theoretical framework can usefully be adopted to account for this co-operation and to describe it? Basically, two types of explanation may be advanced: the first is Richardson's "informal co-operation", which allows for relations between firms that do not prevent competition but which define it in a way that differs from the traditional view. The second explanation relies on Williamson's notion of "atmosphere". But Williamson's model, which emphasises the difficulties involved in incomplete or imprecise contracts, as well as those involved in short-term contracts due to opportunism, seems ill-suited to account for this type of co-operation. Indeed, in this particular context, Williamson's "atmosphere" ought to deploy its effects in such a drastic way as to stand the typical situation of the model on its head. And there seems little sense in defining the market as the site of opportunism and of reciprocal incomprehension, if one then states that the particular conditions of "atmosphere" somehow prevail over the opportunism and over the lack of communication to such an extent as to afford the market a quite different set of characteristics.

9. So far the features of the productive base of the industrial district have been pinpointed. It has been stated that competition between firms producing the same product is very vigorous, that firms find countless opportunities to collaborate, and that industrial district firms are linked by important cultural phenomena.

At this point, one cannot help but ask whether this definition can be put to work, whether it might in fact be applied in everyday research to distinguish what it is that constitutes an industrial district.

A number of difficulties are immediately apparent. Usually, a group of companies - whether end-market oriented or production-phase - if they manufacture the same product, even if the group is concentrated in a limited area, is not bounded by any clear-cut geographical lines. The knitting district of Carpi has no clearly identified frontier. Within the manufacturing sector, the density of knitting firms decreases gradually as you go from Carpi to Mirandola and thence to Ferrara, so that to draw a line at any point along the continuum, marking it out as a frontier, would be wholly arbitrary. It is the same with the silk district of Como or the textiles district of Prato. Only very few districts - the stocking and sock manufacturing district of Castelfelfredo would be an example - have an indisputable geographical boundary that one can point to on a map.

Competition between similar companies, on the other hand, is ubiquitous. This aspect of the definition does not pose any problems.

Co-operation, however, is a very different matter. The agencies that organise work sharing may be of a variety of types: consortia, trade associations, bodies sponsored and funded by local or provincial councils, or organisations that involve a whole range of bodies: local authorities, associations, trade unions and individual business people. Above all, the gamut of activities transferred from companies to collaboratively-run agencies can be enormously varied. In Modena the CNA (small business association) does the book-keeping for 4 per cent of firms, whereas in Ancona this job is entrusted above all to book-keepers and accountants even if firms often join forces to make use of the services of ISELQUI, which are simply not available in Modena.

No less complex are the problems that arise from the need to take account of such intangible and unmeasurable facts as the sense of belonging or the adhesion to a style of inter-firm relations that stems from a local rules system.

These difficulties become even greater as soon as one realises that, as with large companies, the nature of districts changes over time. The proportion of companies enjoying a direct relationship with the retail system increases or decreases. The productive structure becomes more concentrated or more scattered. The forms of co-operation become more effective and widespread or fade and are used less frequently. The sense of belonging weakens or extends over broader areas. The local rules system grows stronger or becomes less consistent.

Under these conditions, it is hard to obtain all the data needed for any proper examination, and any attempt to reach hard-and-fast conclusions would therefore be misguided. Perhaps there is a basic flaw in any research strategy that sets out to examine a manufacturing system and to situate it - on the basis of all the variables described - according to a classification that only accounts for two types of production system: the company group and the industrial district. The company group is defined simply as a concentration of firms within the same manufacturing sector and operating in a limited area, and the industrial district as a system in which inter-firm relations are strongly characterised in the way that has been discussed.

A subtler type of classification, perhaps more practicable and less arbitrary, might hinge on the idea of development and growth, providing no room for clear distinctions. It might make sense therefore to label districts such as Carpi or Prato, where the conditions of the stylised industrial district model are satisfied, "highly developed", and to define those groups of secondary and sloppily-organised firms working in the textiles sector at Sanluri, in Sardinia, in Ridgewood, or in Queens, as "backward districts". Between these two extremes, allowing for a whole range of intermediate shadings, but still with reference to the ideal model, all the other sets of companies would find a place. And one might then also speak of districts in decline, like Vigevano, or of districts, like the furniture district of Pesaro, that are enjoying a period of growth and development.

III. Industrial policy and industrial districts

10. If the industrial district gains the status - and the dignity - of a suitable object for analysis, and if it is accordingly acknowledged that it represents a typical and - at least in certain countries - a commonly occurring productive system, a number of problems then arise, especially as regards industrial policy.

Current discussions on industrial policy in relation to industrial districts may be summarised as posing three questions:

- whether the model of growth by districts - which is implicitly assumed to be positive - can be exported ("replicable" as many people say) and under what circumstances. This is a debate that is carried on in many newly-industrialised countries, in Spain, and in a number of Mediterranean countries. And yet it has aroused no interest, and one cannot understand why this should be so, as regards the Italian Mezzogiorno;
- whether anti-trust laws should be modified to allow the forms of inter-firm co-operation typical of industrial districts: this debate is confined to the United States, and relates above all to the terms of the Clayton Act. The district is again assumed to be a productive system that merits support and encouragement through incentives;
- whether the district can survive the introduction of new technologies and competition with low-wage countries and under what circumstances: this is a discussion that is held mainly in Italy.

These three debates touch on very different issues. Here, we shall only consider the third one. Of course the hypothesis that makes it possible to pose this question is that - except perhaps in particular sectors - no *optimal* manufacturing system can be identified; i.e., that it cannot be argued that *in all cases* large-scale business is more efficient than the industrial district. Only if this hypothesis is well-founded does it make sense to ask what measures of industrial policy are required for the industrial district to grow and develop, and to prevent it plunging into a spiralling crisis. The need for tailor-made measures does not imply that the industrial district is by its nature at a disadvantage vis-à-vis large-scale enterprise: it simply means that industrial districts require special measures of industrial policy.

11. The measures to be introduced range over a wide variety of types: financial packages, training in technical, professional or management skills, and so on. But it is best to leave the analysis of these interventions out of the picture and to concentrate on what in Italy are referred to as *servizi reali*. The idea is to prioritise "real services" as against financial incentives, and to offer companies the services they need rather than the money to purchase those services on the market. The contrast is between meeting the needs of the companies directly and giving firms financial incentives to buy what they need.

But what are these real services? All one can do is list a series of possible real services which are in fact already provided by a number of agencies.

The first example of what might be considered a real service is the provision of information regarding the technical standards enforced by law in various foreign countries: these often function as non-tariff protections. A small-scale producer of farm machinery - a small tractor, a hay baler, or a simple manure-spreader - wishing to export his products from Italy to Germany, France, England, Spain or Austria or Sweden, needs to be familiar with the technical standards in force in the various countries. To provide this service involves setting up and equipping an office to which the entrepreneur can turn for the technical specifications with which manure-spreaders in Bavaria, for example, have to comply. Such an office would be able to give the entrepreneur details regarding minimum wheel size, minimum and maximum headlight heights, compulsory headlight size and voltage, etc. Since non-tariff protections are very rigorous and since small-scale producers of farm machinery are likely to encounter extraordinary difficulties in any attempt to find out about changes in standards, there is little point in offering an entrepreneur money so that he can go out and buy the required information. The entrepreneur simply would not know where to start looking for this information on the market.

Another example of a possible real service would be to provide firms with the software they require in order to design and manufacture their products. Such software could, of course, be produced by firms already operating on the market. In actual fact, however, existing software houses do not produce these packages or CAD-CAMs. And this is because the potential users are either unaware of the existence of CAD-CAMs, or they underestimate their importance, or they believe them to be beyond their reach. Accordingly, software producers, before deciding to embark on this kind of work, would have to identify their potential market, carry out a feasibility study, and so on. In other words, they would have to be much more business-like and efficient than they really are. For there is another point that has to be borne in mind: all this preliminary work would have to be carried out not by huge companies such as Microsoft or Santacruz, which operate in quite different markets, but rather by the small locally-based software houses. Lastly, these software houses would also have to invest heavily in efforts to reach and win over potential users, i.e., to create a market for themselves. All of which is manifestly impossible.

A third example of a real service would be the testing of manufacturers' inputs. Mini-companies producing finished products, and indeed mini-production-phase firms too, often find it very hard to check the quality of the iron or silk or fibre that they have to work with. In Italy there is no public or private network of laboratories able to perform these analyses rapidly and affordably. It would therefore be useful to open a laboratory where an entrepreneur needing to check, for example, that the silk he has received from China is really top quality, can have the analysis of the silk performed and

receive a quick answer to his query. Or where a turner can take the steel he has bought from the wholesaler so that an expert can check that it is of the required grade for the item that he has been commissioned to make.

Another example of a real service might be the translation of tenders advertised in underdeveloped countries. In Italy, as no doubt elsewhere, it is quite easy to find out about such tenders: from the Chambers of Commerce, from the Ministry for Foreign Trade, and from various other sources. What is not so easy is to obtain a full text of the announcements, and an Italian translation that renders the technical and legal terms correctly. This, too, is a job that could be performed by a local services agency, and might help smaller industrial district firms to compete with larger companies, perhaps by drawing up temporary agreements that would enable firms to provide the full line requested.

To sum up the points made so far, the provision of real services involves supplying companies, in return for payment, with those goods or services that they require, instead of giving them the money they need to go out and buy the said goods or services on the market. Often, though not always, it is a matter of disseminating information.

12. Why must these services be supplied by public bodies rather than relying on private enterprise to step in? The reason is obvious: private enterprise simply doesn't supply these services. The question therefore needs to be rephrased: why does the market not function? Why is there no point in providing firms with incentives to buy those services? Why, instead, is it necessary first to supply the services required and then to encourage the firms to purchase them?

Basically, the answer is that we are faced with an imperfection in the market mechanism. There are a number of reasons why the market does not produce the services required.

Firstly, the expertise needed to supply the real services in question is not to be found in the social environment in which the industrial district operates, and therefore has to be drafted in from outside. The need to bring in outside expertise is one of the main motivations behind the measures of industrial policy under discussion.

Secondly, even when, however well-concealed, the appropriate expertise is present within the district's social environment, very considerable investment is needed to produce the services required, and returns on this investment may take a long time arriving. This is due to the fact that the patchy expertise available does not easily create much demand for the services or goods that it might eventually manage to provide.

Thirdly and lastly, the private sector is ill-placed to provide the kind of services that are demanded of "real services" centres because the very nature of the information involved is that of a public asset.

The distinctive characteristic of public assets is that they may be enjoyed by the individual person or organisation free of charge. It follows, of course, that since no-one is entitled to derive profit from the sale of such assets, no-one is prepared to commit the resources necessary for their production. The example most frequently used to illustrate this situation is that of a garden that is open to the public but that no citizen will undertake to tend and guard. In such cases, text book theory proceeds, if the public

asset increases collective well-being, it will be produced and guarded at the expense of the community or of the State.

The distinction between public and other assets does not of course lie in the nature of the assets themselves, but rather in the rules that regulate the relations between such assets and civil society. On the other hand, a private asset, depending on the elasticity of demand, may be sold at a low price to many people, or at a high price to a few, or, lastly, may be reserved for the exclusive use of whoever produced it.

In more concrete terms, this series of cases ranges from at one extreme a garden open to all and sundry, via the garden of a duke open to all those willing and able to pay a small entrance fee, the garden of a hotel - not in itself exceptional in any way - which for a considerable price is available to its few customers, and, lastly, to the private garden.

The rules and the market that operate in the field of information are similar, but not identical, to those described. Some items of information, like those broadcast on the radio, are free. Other kinds of information, such as newspapers carry, have a huge market and are available at a very low price. Other information, such as that to be gleaned from research, is available only to its producer.

Information that is extremely expensive and can be sold to few people is very rare and perhaps does not exist at all. This is not because the rules that regulate the transfer of information cannot be brought into line with those applying to gardens, but rather because the nature of information is such that those who produce it are unable to determine the use to which a subsequent purchaser may then put it. Thus, whereas the very low price paid for a newspaper leads to neither the loaning nor the reproduction of the copy purchased, the high price demanded for a secret report on the reliability of a given company may, in the most straightforward of cases, induce a number of purchasers to share the expense. Indeed, subscription to reports on economic and market trends earmarked for a restricted circle of associates often assumes the form more of a club membership fee than an outlay made in order to obtain information.

How does this all relate to services centres? What relation is there between this approach to information and industrial policies?

The basic idea is that large companies are able to gather the information they need directly, keep it secret, and derive profit from it. And this applies not only to research findings but also to information regarding market trends or, say, tenders announced by Nigeria.

Small firms, in contrast, cannot operate in this manner. The small-scale nature of their operations means that the direct collection of information is unprofitable.

The points made thus far help to account for the fact that - in a scheme *à la* Stigler - the market does not function either. The simple fact is that only the "many customers, rock-bottom prices" market and not the "few customers, soaring prices" market is open to companies involved in gathering market information. Under these circumstances, the creation of a market for information that is not in broad demand really means becoming involved in technology transfer. It means committing oneself to an effort at persuasion and at the creation of consensus that may in fact not be in the interests of a private company. Fundamentally, it is a kind of training activity, the

benefits of which will certainly become apparent to the manufacturing fabric and to the social system but which may not be completely internalised by the company that has produced them. It is this need for a broad market, and at the same time the blurring of any distinction between the information market and training activities - which, it should not be forgotten, are also immune to appropriation by the private firms that run them - that prevents the emergence of private initiatives in this field, thereby making it necessary for the state to fill the gap.

The situation can perhaps best be described in "Schumpeterian" terms. The new technology has been introduced by the large firms that have discovered and developed it. But we are still at an initial stage. The large innovative firms are busy in the world markets, with potentially general purpose products, and have nothing to gain from pursuing small sectorial or district markets. The challenge they face is still at much higher levels. A number of large user companies attempt to carry through the adaptations necessary to fill the specific tasks requested of them. But the scattered tissue of firms working on the innovation is still too fragile to take up those spaces that the new technology will sooner or later come to occupy. The market, in other words, cannot be said to be incapable of performing its tasks: more simply, it is temporarily incapable, and outside intervention can help to reduce delays.

It has to be stressed, of course, that the fact that the small firms of the industrial districts require an intervention of this kind marks a difference between the small firm and industrial district productive fabric and, on the other hand, large-scale companies. The point is simply that large firms are able to internalise expertise by bringing it in from outside, whereas small firms cannot do this. The transfer of information and expertise from the outside into the large-scale firms is a completely different process from the transfer of expertise into a social fabric that, like industrial districts, is not only complicated and rich but also bogged down with inertia.

13. In our view, Hirschmann provides the most useful theoretical point of reference for an account of real services and for an explanation of the need for real services to be supplied by the public sector. The idea is that there are various bottlenecks that act as both obstacles and opportunities. Of particular interest here is the bottleneck created by a shortage of expertise. The social fabric identified with the industrial district needs greater knowhow and finds this extra knowhow very hard to acquire, in part because it has to be available to the entire fabric rather than becoming the exclusive property of a few. This constitutes a bottleneck and an obstacle to growth. To provide the social fabric in which the small companies operate with this knowhow and expertise transforms the obstacle into an opportunity: new knowhow, shared by hundreds or even thousands of people can unleash great creativity, originality and understanding not only at the product design stage but also at the process design stage.

14. At this point it is worth examining the "technical aspects" involved in the production of real services. It is my impression that the subject can be usefully subdivided by asking the following questions: to whom should the services be supplied? What services should be supplied? How should they be delivered? What price should be attached to them and how should they be assessed?

15. To whom must real services be delivered, for whom must they be designed? The basic point is that services must be supplied to a group of firms rather than to a single firm. This follows inevitably from what has so far been said: the operation in question aims to transfer a new technology into a social fabric where it was formerly absent,

thereby carrying through that social process of knowledge acquisition which is an essential precondition for the expression of individuals' abilities.

In many cases, however, different strategies have been followed in pursuit of the same outcome. The attempt has been made to introduce within a particular productive fabric a number of exemplary interventions, targetted on a single company, in such a way as to prompt imitative behaviour and to stimulate more rapid innovation. This strategic option often conceals an intention to reinforce the position occupied within a district by a single company, accelerating its growth, so that - once it has grown considerably larger than it was at the outset of the process - it is able to assume a position of leadership and then pull the entire fabric along behind it. This is certainly a reasonable objective providing one is aware of the hypothesis that underlies such an approach: that the industrial district as a productive system does not in fact work, and that there is another model - the company leader of a network - that is preferable.

It should in any case be borne in mind that to intervene at single company level can create many difficulties. Why is this? There are many reasons: an individual entrepreneur often fails to provide enough details for a sensible decision to be arrived at: he may wish to guard his role jealously and may not like to find himself in a subordinate position and faced with someone telling him how to do his job. Often a greater amount of confidential technical information is required when working on a small company, information of a quite different nature from that needed when intervening with a group of companies or when overhauling and restructuring a large company. Moreover, working on a single small company often elicits paternalistic attitudes from the operators. Nor should it be forgotten that often, where individual firms are concerned, it is easy to make a variety of mistakes liable to create a climate of mistrust and open conflict around the agency that is intervening.

When one works with groups of firms, on the other hand, the whole nature of the operation changes: which firm is the first to accept the agency's proposals will depend mainly on the intention and the character of the individual entrepreneur. The main point is that the job of the real services centre has nothing in common with that of the individual consultant. The consultant works for an individual company, has all the relevant information at his fingertips, helps the entrepreneur to draw up a credible strategy, and is then paid a fee commensurate with the work he has put in. The real services centre does not aim to assist individual companies: its sights are set on a group of companies. Put another way, the real services centre focuses on collective needs rather than individual needs. The individual needs of individual firms can be satisfied by individual consultants.

16. What services need to be provided? The notion that the real services centre is basically an agency for the transfer of technologies suggests a straightforward answer to this question. The services to be provided by the agency will be selected according to a wide range of considerations ranging from the ability to generate profit to the degree of ease with which the new techniques can be assimilated and incorporated into the firms.

This then is the logic that has to be agreed upon between the agency and those with specialist knowledge of the productive fabric in question.

The foregoing should help to dismiss the widespread but mistaken notion that the right procedure is simply to ask firms what they need. Asking firms what they need is

as pointless an exercise as asking a sick man what he needs. Indeed, the answers one is likely to receive are very similar. The sick man will say he wants to get better, and the company will say it wants to sell more of its products at profitable prices. Just as the doctor asks his patient to describe the symptoms of his illness and then decides what medicine is required, so the economist embarks upon a lengthy analysis designed to pinpoint the opportunities and bottlenecks (again, the theoretical framework is provided by Hirschmann), and in the process identifies needs of which the individual entrepreneurs are unaware or which the individual entrepreneurs are unable to define with any precision.

There is a reasonably well consolidated strategy for identifying needs, based above all on research. This strategy entails a number of standard analyses. The first of these sets out to pinpoint which production phases are present in the area and which are lacking. For it may be that a number of specific production phases may not be covered by any of the firms in the district and that this is acting as a severe brake on growth. There is no doubt, for example, that the setting up of a company to do chromium-plating work or of a company to machine non-standard items can in some cases help to move the entire district on towards new levels of achievement. Another standard analysis sets out to ascertain the nature of relations between companies. The fact that a production-phase company or an end-market company has only a few or, on the other hand, a great many customers may speak volumes about the bargaining power of this or that company. If a group of firms has very little bargaining power it may be useful to introduce into the district features designed to increase their ability to take action. Often, for example, it may be that a great number of production-phase companies are confronted with a very limited number of end-market companies, with the result that the latter are in a position to depress the profits of the former, thereby reducing their ability to spend money, and thus preventing them from making the necessary investments in technical innovations. In such cases, measures may be developed to prompt the most successful of the production-phase companies to turn themselves into end-market companies. Alternatively, end-market companies may be brought into the district from other areas.

When undertaking this work it is worth bearing in mind that public opinion often identifies the "baddie" incorrectly: great care has to be taken in this regard both in the creation of alliances and in the selection of one's battles (just think, for example, of the role attributed to wholesalers in the Parmesan cheese market, or to the buyers in the textile sector in Prato).

Attention also needs to be paid to the important role of ethnic, racial or gender issues in the division of labour and in relations with trades unions.

But above all, over the last few years, a special technique has been developed to identify the needs of industrial districts. This technique is based on comparative research focussing on productive systems in different countries competing for the same markets. It is worth rapidly recalling an example of research in the footwear market. Investigation in Italy, France and England has shown that the different productive systems studied (eight Italian industrial districts, two French industrial districts, and a series of large English factories) each has certain advantages and disadvantages. The Italian firms turned out to be much more expert than the French or English ones in producing sample collections and in keeping one jump ahead of fashions. Also, they have at their disposal a more highly-skilled workforce, are able to work with rather advanced technology, and their wage levels are often no lower than those of other firms. In

France and England, on the other hand, design technology is more advanced than in Italy and there is an ability to meet tough delivery deadlines that in Italy is quite lacking. The comparison between different manufacturers, both large and small, between different countries, and between manufacturers competing in different market segments, highlights the structural weaknesses of single districts and even of single large-scale firms requiring intervention. Comparative research, having defined a specific market, is thus able to pinpoint the relative strengths and weaknesses of the various manufacturerers and to indicate which real services need to be provided. Once again the theoretical basis for this work is supplied by Hirschmann and the notion of *bottlenecks*. The aim is to provide districts with a strategy either over the long term or involving market interventions that would be no different from the kind of strategy that larger companies are able to elaborate. Such a strategy need not necessarily entail any expansion in the size of the firms, but will certainly provide for an enrichment of the social fabric with this or that form of expertise and with this or that technology.

17. In what form must these real services be delivered and what characteristics should they have? It is not simply a matter of supplying information in its most straightforward form: information needs to be provided in as personalised a form as possible. This follows from everything we have already stated: the basic problem is the shortage of expertise, and the market's inability to respond to this shortage. What has to be encouraged is the development of a group of companies or of a system of production able to foster more agile and more efficient technologies, industrial relations, and inter-firm relations. It is therefore necessary to supply new techniques and to stimulate the growth of new relations between companies in a manner that is appropriate to the groups of companies affected by the intervention. One particular example of this springs to mind: the production by ENEA of the software needed to facilitate and speed up design processes in the knitting and clothing industries. Here the goal was to design the new technology in such a way as to make it as similar as possible to previously-used techniques. The situation is not that of a hierarchical regime in which the new technology could simply be imposed from above without any need for it to be understood. The climate is such that the new technology has to be understood and accepted by those who will be using it. It is therefore essential to encourage entrepreneurs and employees to work with the new technology, to tailor it to their needs and to improve it, and also to design the new techniques in such a way that they can be introduced without causing upheavals in the workforce, major shifts in the organisation of labour, huge alterations to company hierarchical structures, or vast changes to the organisation of the companies. In other words, the new techniques need to be introduced in the most painless way possible. There has to be an awareness that once the new techniques have been understood and adopted, they will grow further, provide benefits, be reinvented, undergo positive and perhaps not so positive change, in line with the developing needs of the district and the creative input made by each individual. The underlying logic is to promote the transfer of technologies. The Real Services Centre needs to deploy exceptional expertise to ensure that the new technologies are introduced in the most painless way possible. Once they have been set in place, they will expand, multiply, and change in accordance with the imaginative and creative contribution of the various individuals involved.

18. At what price should the relevant agencies sell these services and how should an assessment be made as to the effectiveness of public money supplied to the agencies? The return on outlay can probably be evaluated by cost-benefit analysis. As has already been said, the effect of the agency's work is to facilitate and accelerate the introduction or the spread of innovation. The costs involved comprise public money earmarked for

the agencies plus the financial costs entailed in making private investments earlier than planned. The benefits to be gained are those resulting from the introduction into the productive system of a set of new techniques. However, the job of assessing these benefits is anything but straightforward. As a first approximation, the advantage to be gained from the initiative may be measured by the increase in the system's productivity during the period extending from the actual introduction of the innovation to the moment at which the innovation would have been introduced had no special intervention occurred. However, there are two reasons why things are in fact rather more complicated. Firstly, in the absence of any intervention, the district might become locked into a vicious spiral of decline. Then, as a result of the said decline, the time lag prior to the introduction of the innovation might be further extended and the innovation itself might eventually take place either more hurriedly or more slowly than otherwise. Secondly, the introduction of the innovation may trigger responses that are precisely symmetrical to those just outlined, i.e., leading the district into a spiral of rapid growth. Should this in fact occur, one ought to include among the benefits not only the income secured by avoiding the delay in introduction but also the boost in income that, in subsequent years, will result from the creative use of the new technology.

Nor is it any easier to set a price on the intervention. In principle, a variety of models of optimisation might be constructed. One could, for example, maximise the income of the agency producing the service. Or, alternatively, one might maximise the income to the community, defining that income in the way that has been outlined. These two procedures would lead to very different results, laying bare the mistake made by those analysts who, although the prices of the services provided are kept low to encourage the spread of the new techniques, judge the success of the initiative not by the number of entrepreneurs using the service but by the agency's balance-sheet.

There are a number of other possible and reasonable strategies for setting the price of the services provided. The decision might, for example, be taken to make a profit on those services with which firms are already familiar but to sell below cost those services of whose usefulness firms are not yet convinced. Equally, it might be possible to leave to the private sector the provision of established services and to concentrate on the introduction of new services. Lastly, when working out price strategies, it must not be forgotten that the goal of maximising the income of the community does not necessarily mean setting the price as low as possible. Often, within certain limits, experience in Emilia has shown that entrepreneurs value the usefulness of a service by its cost. Consequently, a relatively high price may in fact lead not only to a saving but also to a more rapid spread of the innovation in question.

IV. Conclusions

19. Before the services described can be designed, a great many interviews will have to be conducted in order to gather types of data not normally covered by official statistics. There will also be a need for a considerable commitment to research into the district's cultural circumstances - "cultural" intended here in the anthropological sense. Close links will have to be forged with research institutions possessing the appropriate expertise and ability to translate the most sophisticated technologies into terms comprehensible to small firms. Often, as has been said, there may be a need for comparative research between a particular district and large companies in the country concerned in the most important competitor countries. This research would be designed to pinpoint the district's weaknesses and to apply greater precision to the selection of

the intervention required. The district has to be viewed not only as a unit of analysis but also as a unit of initiative: as a fully-fledged and organically unified organisation, whose development is slowed down or impeded by bottlenecks that public action must turn into opportunities.

This view of the district as a complex but unitary organism has a number of implications.

The first is of a purely theoretical nature. The interpretive viewpoint so far expounded gives grounds to believe that the functional mechanisms of the district can be more fully understood if reference is made to theoretical constructions developed from a study of single companies. And it is self-evident that the relations which, as has often been stated, link the actors within a single district to one another, are very similar to those that, according to Penrose, bind together a group of people involved in running a company. Entrepreneurs and specialist workers in both production-phase and end-market companies, operators in companies providing services, and trades union leaders, all operate in a climate in which personal familiarity, a knowledge of the limits and strengths of each person, and an understanding of one's own abilities and expertise as well as of those of others, play a role that is no different from that to which Penrose refers in accounting for the way in which different people manage to work in a unitary way. The industrial district, of course, lacks any unitary purpose or will. And yet there is an agreement as to the rules of the game, and a reciprocal respect.

Reference to Penrose can also help to focus the importance of the role that time plays, and the extent to which time is a necessary and essential factor in change. Penrose stated that time - the simple passage of time - was necessary to the growth of the managing group of a firm. This paper has frequently insisted that time is required for an innovation to become widespread. Such periods of time cannot be shortened indefinitely: the rhythm of events and of growth cannot be accelerated precisely because the process that this rhythm punctuates is social rather than technical in nature. This framework also clarifies the role of public intervention: it is not a matter of forcing through a transformation but rather of triggering it, of creating the conditions under which other people can bring it about. Incidentally, this is one of the reasons - perhaps the main one - why these interventions are at one and the same time both very difficult and very inexpensive. They are very difficult because it is a matter of *convincing* rather than of commanding; very *inexpensive* because once the process has been initiated it continues under its own momentum. (To give a rough idea of this: it is believed that the Emilia-Romagna region spends less than 8 billion Italian lire (£400,000 sterling) annually on its 10 centres).

A complex and unitary organisation, as has been said, is co-ordinated not by a single central hierarchy but informed rather by the input from numerous informed agents. The image - and this is the last implication - clearly demonstrates the pointlessness of comparing districts with large firms in an attempt to identify once and for all which system of production is *better* in current economic circumstances. Each has strengths and weaknesses. Districts - when they are successful - are creative, display originality, are often able to discover new markets, continually introduce incremental innovations, some of which may prove important, and enhance social mobility and worker participation. On the other hand, districts are slow to take new technologies on board, lack expertise in financial management, have little of the knowhow required for basic research, and are unable to produce epoch-making innovations. Large firms - when they are successful - provide an inverted image of the one just described. Probably

these two forms of productive organisation will manage to coexist in the future: the latter with the help of sweeping trade agreements and tax laws; the former assisted by means of a painstaking and sophisticated intervention.



International Conference
on

Industrial Districts and Local Economic Regeneration

(Geneva, 18 & 19 October 1990)

Paper No. 10

Industrial districts and local economic regeneration: Models, institutions and policies

by

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Organised by the
New Industrial Organisation Programme
International Institute for Labour Studies
with the support of the
Commission of the European Communities

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I. Introduction

Industrial districts, as this conference amply demonstrates, have captured the attention of a substantial body of researchers and policy makers across a wide range of countries and organizations. Three principal factors largely account for the districts' appeal, as Werner Sengenberger and Frank Pyke observe in their introductory paper: their economic performance, as measured by exports, employment, flexibility and innovation; their capacity for endogenous regional development; and their ability to sustain high wages and labour standards in the face of international competition. Much of the debate about industrial districts has rightly focused on how far and under what conditions particular districts in fact fulfil these high expectations. A considerable body of research on these issues is now available, much of it summarized in the papers for this conference and in the previous ILS volume on Industrial districts and inter-firm co-operation in Italy (Pyke et al. 1990). Such empirical studies provide a strong prima facie case for the economic and social robustness of industrial districts in a variety of sectors and regions, though as we shall see below, their findings are neither univocal nor free from ambiguities.

But once it is accepted that industrial districts do constitute a potentially attractive model of regional development, two central questions arise for policy makers in governments, trade unions, employers' associations and other relevant organizations. What role can conscious policies play in sustaining established districts in the face of new competitive challenges, whether commercial, technological or organizational? What role can policy play in stimulating the emergence of new districts, whether in declining industrial areas or in developing regions? Each of these questions quickly runs up against a widespread view of successful industrial districts such as those of the "Third Italy" - shared by many of their own inhabitants - as unique social artefacts which are the product of a singular and therefore unrepeatable history.

The papers prepared for this conference contain a wealth of insights about the ways in which policy makers can help to sustain and diffuse industrial districts. Taken together, they represent a significant advance in our understanding of the strategic opportunities and avenues for fostering industrial districts by conscious political means. At the same time, however, the papers both contribute to and require a recasting of received ideas about the nature and dynamics of industrial districts in order for their policy implications to be fully appreciated.

This concluding paper therefore proceeds in three main steps. Section II examines contrasting models of the industrial district in the light of recent research such as that presented by the conference papers. It argues for a "thin", "open" model of the industrial district which leaves considerable room for geographic and historical variations in organization and performance, rather than a "thick", "closed" model abstracted from stylized descriptions of particular cases such as the "Third Italy". Section III considers the respective roles of culture and institutions in the operation of successful districts, highlighting the importance of formal mechanisms for conflict resolution and the provision of collective services in sustaining trust and cooperation among economic actors. Section IV then returns to the possibilities for fostering through public policy the simultaneous creation of the institutional infrastructure and collective actors required for the emergence and reproduction of successful industrial districts.

II. Industrial Districts in Theory and Practice

The most widespread conceptual framework for understanding industrial districts is undoubtedly that derived from the work of the the turn-of-the-century British economist Alfred Marshall. As is well known, Marshall argued that external economies could be obtained through the concentration of a large number of small firms engaged in a single industrial sector (including "subsidiary industries" such as machinery manufacture) within a localized geographical area. These external economies assumed three main forms in Marshall's analysis: economies of specialization arising from an extended division of labour between firms in complementary activities and processes; economies of information and communication arising from the joint production of non-standardized commodities (assimilable to modern notions of transaction costs); and economies of labour supply arising from the the availability of a large pool of trained workers. More dynamic but less narrowly economic in character were the advantages Marshall attributed to the sedimentation in long-established districts of a distinctive "industrial atmosphere" which facilitated the acquisition of specialized skills through socialization and the diffusion of innovation through frequent interchange between local actors.¹

Marshall originally developed the concept of the industrial district with reference to contemporary British examples such as Lancashire cottons, Sheffield cutlery and South Wales tinplate. During the late 1970s and early 80s, Italian scholars such as Giacomo Becattini, Sebastiano Brusco and others revived Marshall's concept as a framework for interpreting the explosion of small-firm development occurring in the central and north-east regions of the country. In applying the concept of the industrial district to the Italian experience, however, these scholars both extended and modified Marshall's original ideas in significant ways. Most writers on the Italian districts emphasized their classic Marshallian characteristics like the extended division of labour between firms, the accumulation of specialized skills and the diffusion of innovation. But a number of the most influential formulations, notably those of Becattini and his collaborators, also sought to elaborate Marshall's notion of "industrial atmosphere" by including a set of more explicitly "social" features drawn from a stylized account of the Italian districts. Among the new elements thereby introduced into the "canonical" model of the industrial district were a non-metropolitan, small-town environment; a set of shared values such as hard work, cooperation and collective identity; and a social structure based on the preponderance of small entrepreneurs and industrial workers. This recasting of the industrial district as a "socio-economic notion" was reinforced by the complementary work of sociologists such as Arnaldo Bagnasco and Carlo Trigilia who highlighted the influence on the genesis of "diffused industrialization" in the "Third Italy" of historical inheritances such as the extended family, sharecropping and peasant proprietorship, and local political subcultures, both "red" (Socialist/Communist) and "white" (Catholic).²

¹ For Marshall's own views, see Marshall 1975, vol. 2, pp. 195-198; Marshall 1922, pp. 267-290; and Marshall 1927, pp. 283-288. For helpful modern commentaries, see Becattini 1989 and Bellandi 1989.

² For a useful overview of the Italian literature, see Brusco 1990; and for his own version of the model, see also Brusco 1982, 1986 and 1989. For major formulations by Becattini and his collaborators, see Becattini 1987, 1989, 1990; Sforzi 1989, 1990; and Bellandi 1989. For syntheses of the work of Bagnasco and Trigilia, see Bagnasco 1988; Trigilia 1986, 1989a, 1990; and cr. also Becattini 1978.

This reinterpretation of the Marshallian industrial district has proved immensely fruitful both in focusing attention on the distinctive social and historical features of Italian small-firm development and in stimulating the search for analogous phenomena elsewhere. But the policy implications of the Italian literature were highly paradoxical. On the one hand, the industrial district appeared to constitute an attractive and coherent model of economic and social development which policy makers elsewhere might wish to emulate. On the other hand, however, the wider policy relevance of the Italian model remained uncertain because of its apparent dependence on a highly specific socio-historical context.³

More recent research, as synthesized by the papers for this conference, both confirms and challenges the canonical model of the Marshallian industrial district developed within the Italian literature.⁴ The broader relevance of the industrial district as a dynamic form of economic organization has been confirmed by the discovery of successful counterparts in a wide range of sectors and regions outside the Third Italy, as well as by the effective adjustment of many (though by no means all) Italian districts to the new competitive conditions of the 1980s. But the proliferation of industrial districts with diverse origins and internal organization also challenges the idea of a canonical model based on a stylized account of a single national experience, as too do the significant changes observed within the Italian districts themselves. The remainder of this section briefly discusses these research findings before going on to outline an alternative and more compatible model of the industrial district.

The first and perhaps most striking finding of recent research, as we have already noted, is the sectoral and geographical range of districts identified outside the Third Italy. Drawing only on the papers for this conference, examples of established or emergent districts examined include: Baden-Wurtemberg in Germany; West Jutland in Denmark; Fuenlabrada, Castellon, Mondragon and the Valles Oriental in Spain; parts of Pennsylvania in the United States; Centre-Mauricie, Montreal and Bois-Francs in Quebec, Canada; and Barletta, in Puglia, southern Italy. Among the better-documented cases missing from this list should be added: Silicon Valley, Route 128 and parts of greater Los Angeles in the USA; Oyonnax and Cholet in France; Smaland, in Sweden; Sakaki in Japan; and a host of districts such as Biella, Brianza, Brescia, Como and the Canavese in the north-western Italian regions of Piedmont and Lombardy.⁵ As in the Third Italy itself, many of these districts specialize in light, labour-intensive industries such as clothing, textiles, shoes and furniture, but an increasing number have now been identified in more technologically-demanding and capital-intensive sectors such as metalworking, machine tools, ceramics, plastics, semiconductors, computers, motion pictures, aerospace and industrial automation.

In some of these districts, the historical matrix of development bears some affinities to that of the Third Italy. In Baden-Wurtemberg, West Jutland, Oyonnax and

³ See, for example, Amin and Robbins 1989; Ganne 1990; Courault and Romani 1989; Bagnasco 1988, chp. 5; Messori 1986.

⁴ In addition to the conference papers and Pyke et al., 1990, for surveys of recent research on industrial districts and public policy in Italy and elsewhere, see Hirst and Zeitlin 1989a, Zeitlin 1989; Regini and Sabel 1989, and Brutti and Ricoveri 1988.

⁵ For a general survey, see Sabel 1989a.

Cholet, for example, agrarian small holdings, independent artisans and a "white" or "red" political subculture also appear to have played important roles in the formation of industrial districts. In other cases, however, district-like forms of organization have emerged by very different routes, whether from urban professional milieux as in Silicon Valley, Route 128 and Turin or from declining large-scale industries as in Fuenlabrada, Pennsylvania or Sesto San Giovanni near Milan.⁶

These newly-identified districts display a similar diversity in economic performance, internal organization and social complexion. Some are world-renowned centres of technological innovation with commanding export positions, while others are still struggling to establish their position in domestic and international markets. Small and medium-sized family firms overwhelmingly predominate in some cases, while large-scale enterprises and external capital play a more significant role in others. Some districts have formalized cooperation among local actors through a variety of collective institutions, while others have experienced greater difficulty in forging common interests among competing firms and social groups. Some districts are heavily unionized, with earnings levels and working conditions above the national average, while others remain poorly organized, with sub-standard wages and conditions. Although the most economically successful districts are typically characterized by high wages, high union density and institutionalized cooperation, no single organizational model may be said to prevail.⁷

Similar problems are raised by recent developments within the Third Italy itself. The canonical model of the Marshallian district took as its point of reference the experience of the 1970s, when small-firm growth was at its most rapid and Italian exports took off dramatically in world markets. Conditions in the 1980s, as Trigilia, Ricoveri and Brusco each point out, have differed in a number of respects from those prevailing during the preceding decade: increased competition in international markets from both advanced and newly-industrializing countries; accelerated diffusion of new, microelectronic technologies; and a less favourable macroeconomic environment (fixed exchange rates within the European Monetary System, devaluation of the dollar since 1985, slower growth of world trade). The districts of the Third Italy have responded to these challenges with varying degrees of success: thus, for example, the metalworking districts of Modena and Bologna have maintained or even enhanced their competitive position, while the textile districts of Prato and Carpi have experienced greater difficulties in readjustment.⁸

In each of these cases, however, the 1980s have also seen significant changes in the structure of the districts themselves. One change is the growing intervention of local government in the collective provision of 'real services' to the firms, a shift which marks for Brusco the transition to a qualitatively new model: the Industrial District Mark II (Brusco 1990). A second change emphasized particularly by Trigilia is the enhanced role of trade unions and employers' associations in negotiating the terms of flexibility and

⁶ For an elaboration of this argument, see Sabel 1989a, pp. 45-52.

⁷ For similar variations within the Third Italy, see Brutti and Ricoveri 1988.

⁸ On Modena and Bologna, see Perulli 1989, Alaimo and Capecchi 1990, and Brutti and Ricoveri, pp. 254-263; on Prato and Carpi, see Trigilia 1989b, Bursi 1988 and Brutti and Ricoveri, pp. 224-238, 272-285.

restructuring within the enterprise, a process in which local authorities also play an important part (cf. Regalia 1987). A third change is the emergence of more formalized groups of firms, sometimes controlled by larger companies outside the region: there are now estimated to be some 400 groups of firms in Prato, for example, while five large groups (one of them owned by de Benedetti) now control much of the automatic packaging machinery sector in Bologna.

Some observers have seen in this last development a fundamental transformation of the districts through a process of "concentration without centralization" (Harrison 1989; Bianchi 1989), but such a conclusion seems decidedly premature. In Bologna, for example, the formerly independent packaging machinery companies appear to be devolving increased responsibility for production and design to external subcontractors within the district, at the same time as they are profiting from the common marketing and after-sales services provided by their parent groups (Alaimo and Capecchi 1990). As Sengenberger and Pyke as well as Trigilia point out, moreover, large companies themselves have been decentralizing, devolving and disintegrating their operations into looser networks of semi-autonomous subsidiaries, franchisees, subcontractors, joint ventures and strategic alliances. Rather than signalling the imminent eclipse of the industrial district, therefore, the developments of the 1980s seem better understood as part of what Sabel calls the "double convergence" of large and small-firm structures, as small firms in the districts build wider forms of common services often inspired by large-firm models, while large firms seek to recreate among their subsidiaries and subcontractors the collaborative relationships characteristic of the small-firm districts. This process of double convergence in turn is giving rise to an observable proliferation of hybrid forms of organization which fall between the canonical models of the industrial district and the vertically-integrated corporation, as well as a multiplication of more explicit alliances and exchanges between firms of both types (Sabel 1989, Regini and Sabel 1989).

Taken together, therefore, recent research underlines the diffusion and dynamism of industrial districts as an economic and social phenomenon at the same time as it highlights the limitations of the conceptual framework within which they are normally understood. Despite its many valuable insights, the canonical model of the Marshallian industrial district now appears too rigid, too exclusive and too closely bound up with the experience of a particular time and place to accommodate convincingly the diversity displayed by contemporary districts both inside and outside the Third Italy. One possible solution proposed by Brusco and taken up by Sengenberger and Pyke is to distinguish between "advanced" and "backward" districts depending on the degree of correspondence to the stylized model (e.g. commercial and technological autonomy, inter-firm linkages, cooperation), with Carpi and Prato at one evolutionary extreme, the textile districts of Sardinia or Queens at another, and a variety of cases in between. But this proposal, helpful though it is in opening up the model of the industrial district to encompass a wider range of observable situations, remains problematic because of its teleological premise. For why should we expect "backward" districts to evolve towards a single model given the changes underway within the "advanced" districts themselves?

In the face of these difficulties, it seems necessary to move away from a "thick", "closed" model of the industrial district based on a stylized account of a particular national experience towards a "thin", "open" model capable of generating a variety of empirically observable forms. Such a model might take its point of departure from Marshall's original definition of the district as a geographically localized productive

system based on an extended division of labour between small and medium-sized firms specialized in distinct phases of a common industrial sector. And it might also draw on Brusco's notion of intermediate or hybrid cases defined in terms of their distance from the ideal-type: e.g. the degree of localization, the size distribution of productive units, and the extent of inter-firm linkages. But it would not assume that industrial districts so defined are necessarily innovative, flexible, consensual or otherwise successful, since stagnant or declining districts also display many of the same structural features, nor would it assume that as districts develop they will necessarily evolve towards the pure model. Put another way, industrial districts are neither necessary nor sufficient conditions for flexible specialization, understood as the manufacture of a wide and changing array of customized products using flexible, general-purpose machinery and skilled, adaptable workers, but rather one possible organizational framework within which this form of production may flourish.⁹

For industrial districts to realize the economic and social possibilities envisaged by Marshall and documented by recent research, however, they also require a set of collective institutions to sustain the innovative recombination of resources by balancing cooperation and competition among productive units. For the decentralized structure of the districts characteristically poses two major institutional problems: the provision of common services which are beyond the capacity of individual firms to supply for themselves, such as training, research, market forecasting, credit and quality control; and the resolution of conflicts among local actors which threaten to displace competition from the what Sengenberger and Pyke term the "high road" of product and process innovation to what they call the "low road" of sweated wages and conditions. While these dilemmas are intrinsic to the general model of the industrial district, the institutional solutions may vary considerably in form, participants and effectiveness from one district to another, as we shall see in the next section. And it is this disjunction between common functional requirements and diverse institutional solutions which opens up a space for policy intervention in fostering the districts' development.

III. Culture and Institutions

Among the most frequently noted features of successful industrial districts is the interpenetration of social relations and economic exchange. Firms in these districts typically combine competition and cooperation in ways that are difficult to reconcile with a pure market model of economic behaviour; trust relationships are widespread not only between legally separate enterprises but also between workers and employers; and it is hard to say in many cases where the local community stops and industry begins. Thus experienced observers of the Third Italy speak of "a thickening of industrial and social inter-dependencies", "the social construction of the market" or the primacy of other-regarding "action" over self-regarding "work" in seeking to capture the social dimension of economic activity in industrial districts.¹⁰ There can be little doubt that cooperation, trust and community have indeed been crucial to the economic success of industrial districts such as those of the Third Italy. But it is precisely these social

⁹ For a theoretical exposition of flexible specialization in these terms, see Hirst and Zeitlin 1990.

¹⁰ For these formulations see, respectively, Becattini 1987b, quoted in Benton's paper for this conference; Bagnasco 1988; and Piore 1990.

features - so distant from prevailing conceptions of economic rationality - which lead many commentators to regard such districts as unique historical artefacts which can be found but not made. Only a common and exceptional culture, on this view, could account for the apparent harmony of individual preferences and motives observed in the industrial districts.¹¹

Yet recent research on industrial districts, past and present, has cast increasing doubt on this view of trust relations as the product of a pre-existing cultural consensus. Just as studies of new districts outside Italy have identified a wider set of formative milieux, so too have they discovered that a common cultural heritage in a narrow sense is neither a necessary nor a sufficient condition for their emergence. In the Spanish case, for example, the success of the Mondragon cooperative is often attributed to the strong Basque identity of the region; but as Lauren Benton points out, this Basque identity can be found in many towns which have not turned into successful industrial districts, while a quarter of all Mondragon members are not of Basque origin. Nor can such cultural inheritances account for the contrasting trajectories of other initially similar areas such the declining shoe and thriving ceramics districts of Valencia. Elsewhere, too, the pre-existing bonds which can give rise to trust relations in industrial districts turn out to be exceedingly diverse: small entrepreneurs' common background as "alumni" of a particular large firm (plastics in Erie, Pennsylvania or wooden furniture in Salling, West Jutland); a common professional identity (high-tech engineers in Silicon Valley or Turin); craft pride (foundries and tool-and-die shops in Pennsylvania); as well as more obvious ties such as family origin, ethnicity, religion or political affiliation. Under the right circumstances, it would appear, almost any set of common experiences can form the basis of a common culture, since as Charles Sabel argues, a minimum degree of trust in the sense of shared communicative expectations may be taken as a constitutive rather than aberrant fact of social life.

A second finding which undercuts the view of trust as the product of a pre-existing cultural consensus has been the rediscovery of overt conflict within the histories of industrial districts themselves. Careful studies of any district, however successful, typically turn up evidence of recurrent tensions between different groups within the local economy: merchants and manufacturers; assemblers and subcontractors; employers and workers; craftsmen and labourers. In many districts which now represent themselves as cooperative and consensual, moreover, such tensions erupted into open and bitter conflicts at some point in the not-so-distant past: a frequently-cited case is that of Prato, where no collective bargaining agreements were signed between unions and employers' associations for more than a decade after a series of unsuccessful strikes in the late 1940s (Triglia 1989b). Often, too, as Sabel notes, participants in these disputes subsequently disclaim any knowledge of these events, as if an act of collective amnesia were required for relations between social groups to be redefined in cooperative terms. Where a more individualistic ethos prevails, conversely, as in the West Jutland districts described by Peer Hull Kristensen, entrepreneurs frequently deny the existence of cooperative relationships with other local firms even when these are readily observable in everyday practice.

Given these discoveries, trust relations in industrial districts seem more a consequence than a precondition of practical cooperation among local actors, and social

¹¹ For a critical exposition of this view, see Sabel's paper for this conference.

consensus less an antithesis of conflict than an outcome of its successful resolution. These conclusions are reinforced by a third major finding of historical research on industrial districts: the dependence of their long-term success on institutional mechanisms for the resolution of collective conflicts. As Sabel aptly observes of districts such as Prato woolens, Sheffield cutlery, Oyonnax plastics and Swiss watches (and one could add a host of others, past and present), "whenever the parties to these conflicts regulate their disputes through arbitration boards or councils which police quality or set and monitor wage schedules, the districts flourish; when not, then not." While the social consensus necessary for the smooth operation of a decentralized industrial structure may build on formative experiences in the past, it can only be sustained over the longer term through the creation of formal dispute-resolution procedures whose operation remains broadly satisfactory to all the parties concerned.¹²

Many of the conference papers likewise underline the crucial importance of institutions for the provision of collective services in developing the innovative capabilities of contemporary industrial districts. Whereas informal cooperation among local firms such as exchange of tools, advice or subcontracts may have appeared sufficient during an initial phase of development, most successful districts have felt the need to create more formal collaborative institutions in order to compensate for the disadvantages of a fragmented industrial structure. While the institutionalization of cooperation is most advanced in well-established districts such as those of Emilia-Romagna and Baden-Wurttemberg, promising initiatives in this direction can also be discerned in the emergent districts of West Jutland, Spain, Quebec and Pennsylvania, to cite only examples taken from the conference papers.

As the papers show, there are considerable variations among these districts in the precise range of services offered. Some services are primarily concerned with marketing, from information gathering and research (forecasting fashion trends, translating tenders, monitoring foreign technical standards) to cooperative sales initiatives (catalogues, exhibitions, stands at trade fairs, local trade marks and even jointly owned retail outlets or export companies). Others are more focused on production, from technological information and consultancy, subcontracting registers and quality control to cooperative R&D and joint operation of large-scale equipment such as CAD/CAM systems or silicon foundries. Still others deal with key inputs such as bank finance and credit, raw materials purchase and testing, or the training of skilled workers and technicians. Often, too, it is difficult to draw a line between the provision of such services and regulation of competition among local firms: thus collective marketing arrangements, as Brusco notes, can only work well where firms specialize on complementary products, as they do by formal agreement in Baden-Wurttemberg and West Jutland; while quality control certification and local trade marks also serve as a means of preventing companies from cutting costs by adulterating raw materials or finished goods. In this way, institutions for the provision of collective services join hands with those for collective wage setting and dispute resolution: both encourage small firms to compete through continuous innovation and upgrading rather than through squeezing labour and reducing product quality.

Just as the range of services available varies widely from district to district, so too does the institutional framework within which they are produced. Sometimes collective

¹² For fuller accounts of conflict resolution in industrial districts and a wider range of historical cases, see Sabel and Zeitlin 1985 and forthcoming.

services are provided directly by local government; sometimes by an independent agency run as a public/private partnership; sometimes by artisan, trade or employers' associations; sometimes by cooperative enterprises or consortia of individual firms; and sometimes by ad hoc teams of business people, public officials, trade unionists, bankers and educators. The key to their success, as Sabel remarks, is that the relevant local actors come to constitute a more or less formal policy network within which effective solutions to common problems can be jointly discovered. While no universal model of organization can be therefore drawn from the conference papers, two generalizations do emerge about the institutional requirements for the formalization of cooperation within industrial districts.

The first requirement concerns the autonomy of local government. Only local authorities are in a position to acquire the detailed knowledge of the local economy and broker the social consensus among local actors needed for the effective provision of collective services, as in the cases of Baden-Wurttemberg or Emilia-Romagna. Where the financial and policy independence of local authorities are sapped by central government controls, as in Mrs. Thatcher's Britain, industrial districts are unlikely to flourish and promising experiments in collective service provision may wither on the vine.¹³ Conversely, where political decentralization has enhanced the autonomy and powers of regional government, as Benton shows for Spain during the 1980s, the reorientation of industrial policy towards local interests and objectives may give a crucial boost to the development of industrial districts.

The second requirement concerns the role of collective actors. Collective services, as Trigilia observes, often take the form of public goods to whose creation individual firms or workers may be reluctant to contribute however great their advantages for the regional economy as a whole. Hence the production of these collective services requires strong local interest organizations such as business associations and trade unions which are capable of internalizing both their costs and their benefits. Such organizations are equally necessary for the operation of collective wage determination and dispute resolution systems whose importance in sustaining social consensus and productive flexibility we have repeatedly underlined. Where business associations and trade unions are weakly organized, lack territorial autonomy or are dominated by the interests of larger firms, as to varying degrees in southern Italy, the industrial periphery of Madrid, West Jutland and much of the United States, cooperation among local actors within emergent industrial districts is more difficult to institutionalize than where the opposite conditions prevail, as in Emilia-Romagna, Baden-Wurttemberg and Barcelona. At the same time, however, successful experiments in cooperation and consensus-formation among local actors may also stimulate the reinforcement of weak interest-group organizations, as in the Pennsylvania manufacturing districts discussed by Sabel.

IV. Politics and Policies

What role, then, can public policy play in sustaining and diffusing dynamic industrial districts? The conference papers suggest two sets of conclusions, one negative

¹³ For a more extensive discussion of the British case, see Hirst and Zeitlin 1989a and 1989b, and Crouch and Marquand 1989.

and the other positive. The negative conclusions concern the inappropriateness of two conventional policy instruments for promoting regional economic development: strategic industrial policy on the left, and free-market deregulation on the right.¹⁴ Strategic industrial policies assume that the state can promote development by coordinating the investment policies of large firms and concentrating resources on advanced sectors and technologies. But the papers suggest that "traditional" industries such as clothing and "furniture" may form the basis of dynamic regional economies just as much as "modern" ones such as electronics; that regional development is better promoted by building on existing specializations rather than by seeking to transplant wholly new productive activities; that collective services aimed at a group of firms are more effective in diffusing innovation than strategic interventions targetted on a single company; and that central state officials often lack the local knowledge needed to assess the policy requirements of established or emergent industrial districts.

Deregulation policies assume that economic development can be promoted by encouraging competition and removing institutional constraints on the free working of product, labour and capital markets. Yet the conference papers suggest that the collective inputs and services on which industrial districts depend are public goods which will not be provided by market mechanisms alone; that institutional mechanisms of wage setting and conflict resolution are vital for sustaining trust and cooperation among economic actors; and that unrestrained competition may undermine the productive flexibility and innovative capabilities of industrial districts (as illustrated most graphically by the case of fraudulent bankruptcies in Spain).

On the positive side, the papers suggest that policy makers can stimulate the development of industrial districts by simultaneously fostering the creation of the institutional infrastructure and the collective actors required for their sustained reproduction. Thus political authorities can upgrade the local industrial structure and encourage cooperation among economic actors by supporting the provision of collective services such as marketing, research, technological consultancy, low-cost credit, and training, as well as the construction of collective mechanisms for wage-setting, dispute resolution and quality control. At the same time, however, local and regional governments need to orchestrate the formation of broad policy networks within which a variety of relevant actors can collaborate in solving common problems - what Paul Hirst and I have elsewhere termed an "industrial public sphere" - while also seeking to reinforce the capacity of business associations, trade unions and other interest organizations to internalize the costs and benefits of collective services and regulatory mechanisms.

These double imperatives mean that the crucial task for policymakers in promoting of industrial districts is that of social and political leadership. Establishing a dialogue and building a consensus among local interests becomes inseparable from the process of analyzing the weaknesses of the regional economy and constructing effective institutional solutions. Rather than drawing up blueprints for collective services themselves, therefore, public authorities should devise programmes which encourage local actors to cooperate in defining their own needs, as in the case of the Pennsylvania Manufacturing Innovation Networks described by Sabel. The industrial policy maker's role, on this view, is less similar to that of a doctor, to use Brusco's image, who

¹⁴ For an elaboration of these criticisms, see Hirst and Zeitlin, 1990.

prescribes an appropriate medicine after examining the patient's symptoms, than to that of a psychoanalyst, who assists the patient to cure him or herself through an extended process of self-examination and discussion. And just as the modern psychoanalyst is continually driven to reassess the therapeutic role as a result of his or her interaction with the patient,¹⁵ so too the industrial policymaker must be prepared to reconsider the role of government in the provision of public services as a result of the dialogue among local actors, as the Pennsylvania experiment once again suggests.

A final set of policy issues raised by the papers concerns the relationship between local, regional and national institutions. Industrial districts, as we have repeatedly stressed, require strong and autonomous local institutions which can formulate effective policies tailored to local needs. These requirements are most evident in the case of local government and industrial policy. But as a number of the papers argue, promoting industrial districts also demands a reorientation of national policies in other spheres such as social welfare, taxation and vocational education. In Denmark, for example, as Kristensen observes, the social security system long discriminated against patterns of self-employment and occupational mobility characteristic of the West Jutland districts, vocational education has been geared to training semi-skilled workers for large firms, and taxation rules favour large-scale limited companies over small privately-owned enterprises. In Italy, similarly, Brutti and Ricoveri advocate a far-reaching reform of the contributory basis of the social security system from wages to value-added in order to redistribute the tax burden between labour and capital-intensive activities as well as between small and large firms (Brutti and Ricoveri 1988: 104-113).

But as several papers also emphasize, the reorientation of state policies to suit the needs of industrial districts is not simply a matter of decentralization. Thus as Trigilia suggests, for many problems such as technical education, applied research, environmental protection or transportation and communications infrastructure, a reinforcement of regional authorities is also necessary in order to coordinate local initiatives, avoid duplication and overcome constraints of scale. And as Ricoveri argues, the devolution of responsibilities to local and regional governments - whether in the sphere of industrial policy or social welfare - needs to be anchored in a new national framework of legislative guidance and support. Hence promoting industrial districts does not mean the dissolution of national policy making, but rather a new distribution of tasks between different levels of government - local, regional, national and even supranational, as in the case of the European Community.¹⁶

Local and regional autonomy, moreover, is no less important for interest-group organizations such as trade unions and employers' associations than it is for government. Highly centralized bargaining procedures can also constrain local experimentation with new collective agreements adapted to the employment patterns of industrial districts, as Kristensen shows in the case of work-time restructuring in Denmark, or Benton observes of national tripartite pacts in Spain. Interest-group organizations therefore need to strengthen their negotiating capacities at the local and

¹⁵ For a discussion of the changing understanding among psychoanalysts since Freud of "countertransference" (the analyst's reactions to the patient), see Samuels 1989, pp. 144-150.

¹⁶ For a more general discussion of the possible relationship between industrial districts and the national welfare state, see Sabel 1989a, pp. 53-59 and 1989b.

regional levels, not only in relation to one another but also to government authorities. Here, too, as both Trigilia and Ricoveri emphasize, what is at issue is not the abandonment of central negotiations, but rather the development of new forms of articulation between bargaining at different levels from the individual firm through the district, region and industrial sector to the national economy as a whole. Hence for trade unions and employers' associations, as for the state, promoting industrial districts involves not only a reorientation of existing policies but also a restructuring of their own organizations and practices.

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International Conference
on
**Industrial Districts and
Local Economic Regeneration**

(Geneva, 18 & 19 October 1990)

Paper No. 1

**Small firm industrial districts and
local economic regeneration:
Research and policy issues**

by

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International Institute for Labour Studies

Organised by the
New Industrial Organisation Programme
International Institute for Labour Studies
with the support of the
Commission of the European Communities

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I. Introduction

About four years ago the International Institute for Labour Studies began a research initiative called the New Industrial Organisation Programme. As implied in the title, this programme was designed to keep the Institute up to date with trends in industrial change, with particular reference to issues concerning labour and labour institutions. The aim was to stimulate discussion both within and outside the ILO and to formulate policy initiatives for combatting identified problems.

In the context of reviewing the trends of industrial organisation, we decided, for reasons that will be made clear in the following pages, that industrial districts should be one major focus. Over a two-year period we organised a research network, convened meetings, commissioned studies, and generally delved deeply into the subject; and also encouraged others to do likewise. The situation we have reached is that we are now in a position to assess what we have learnt from our work and to move on to discussing policy initiatives. For that reason we have convened the international conference for which this paper is being written.

II. Industrial districts

The main impetus for the industrial district model has undoubtedly come out of Italy and for the first two years of this project that country claimed most of our attention. Our review of the industrial district phenomenon in Italy [see Pyke et al., 1990] has identified what we would consider, by traditional academic standards, a novel, dynamic approach to regional economic development. In our opinion, there are clearly principles of organisation which could very usefully be used in other contexts and countries, and we think these should be brought to people's attention. This is not to say that what is on offer is a perfect model that will magically solve all developmental problems at a stroke. Neither does it mean that we are totally happy with all aspects of what we have come to know about the districts that exist. Nevertheless, we feel that there are positive lessons to be learnt and that their implications should be discussed.

The Italian districts are concentrated in the North Central and North East parts of the country, with the heartland being the province of Emilia Romagna with its capital Bologna. It is quite clear that these districts differ in their characteristics and that it would be wrong to overgeneralise. Nevertheless, we can set out an "ideal type" characterisation to which some of the strongest districts, like the towns of Carpi and Prato, have at some time, or still do, resemble, and to which many other "quasi districts" tend to approximate. It is the principles of organisation that appear to us to be at the heart of the most successful districts which we feel are the most useful lessons for us at the ILO and other practitioners when it comes to formulating policy initiatives for regional development.

II.1 Principles of organisation

Before going on to describe what industrial districts are, it is worth mentioning briefly what industrial districts are *not*. Industrial districts are not what Sebastiano Brusco refers to in his paper for this conference as a "company group", defined simply as a concentration of firms within the same manufacturing sector and operating in a limited area. Industrial districts are much more than this. They are also more than

collections of disparate firms and services organised together on what the British call "industrial estates" and the French "zones industrielles". What is extra and different is the way the firms are *organised together* according to certain principles discussed below.

The crucial characteristic of an industrial district is indeed its *organisation*. That is to say that economic success for the industrial district has come not through advantageous access to low cost factors of production - cheap labour, land or capital - but, rather, from a particularly effective social and economic organisation based on small firms. This organisation may vary at the margins, but typically there are a number of key elements which help to "explain" or identify the most successful districts:

Perhaps paramount amongst these is the existence of strong *networks* of (largely) small firms which through specialisation and subcontracting divide amongst one another the labour required for the manufacture of particular goods; specialisation induces efficiency, both individually and at the level of the district; specialisation combined with subcontracting promotes collective capability. Both economies of scale and scope are the result. It is the firm as part of a collective network, and its dependence on it, which perhaps more than anything else encapsulates the essence of the district's character. A small firm in an industrial district does not stand alone; a condition of its success is the success of the whole network of firms of which it is a part. An industrial district is not simply a conglomeration of essentially isolated, individually competitive firms, that happen to be located together, with no linkages between them. Rather, the firms of a district are organised together according to definite principles. Thus key questions are not in the vein of: "What makes an individual small firm succeed? What turns a firm into a winner or loser? How can we identify potential winners?" Rather, what must be posed are questions like: "What key principles serve to make the *community* of firms a success? What blockages or facilitators for the development of the small firm *network* can we identify?" and such like. Thus the success of development policies cannot be measured in terms of *individual* improvement - which is an assumption made in most small firm promotion - rather, it is the growth of the district as a whole which should be evaluated.

The networks of an industrial district belong to the *same industrial sector*, in the sense of containing all the upstream and downstream processes and services going towards the manufacture of a family of products (such as ceramic goods or knitted clothes). In an industrial district these networks tend to be locally related; i.e., an industrial district is *geographically bounded*. Geographical proximity between firms, and between individuals, firms, and local institutions, has an effect: for the spread of ideas and technical innovation, for various kinds of collaboration, between firms and of a broader political kind, for social cohesion and a sense of collective consciousness, for ease and speed of interfirm transactions, geographical proximity improves effectiveness.

A readiness amongst firms for *co-operation* is another important characteristic of industrial districts, a kind of co-operation that, far from implying a stifling of competition, in fact aids it. It is clear from our review of the industrial districts that certain kinds of co-operation at certain levels, or in certain contexts, can promote competitive efficiency at other levels or in other contexts. Thus, for example, there can be a readiness to share information, such as ideas about new technologies or products, which help all firms in the district to become more efficient through better productivity, quality, design or whatever. This sharing of information might be carried out informally at a personal level or more formally through specially established institutions. Such institutions might be associations of employers or workers, or service centres providing

advice "over the counter". The collective provision of services and information makes affordable something which small firms otherwise could not hope to manage as isolated individual units. The existence of institutions, and perhaps ideologies, capable of sustaining collective co-operative relations would appear to be crucial.

A further feature is the pervasiveness of an *entrepreneurial dynamism*. This dynamism is itself a product of numerous conditions, some of which can include: ease of formation of new firms (access to capital, premises, etc. and an advantageous legal framework), protection from domination and dependency upon large firms (permitting independent design capabilities and ease of access to final markets), knowledgeable individuals capable and confident enough to establish new firms, and access to networks, ideas, and services mentioned above.

The most successful districts *compete on a range of dimensions* and not just on price. Where they are at their best they represent a type of industrial organisation that meets competitive challenges through differentiated quality products, flexibility of adjustment, and the ability for innovation. The abilities to offer quality, design flair, choice, flexibility, speed, and innovation are themselves a product of a particular kind of organisation, based, as we have indicated, on a peculiar mixture of competition and co-operation. *Flexibility* is perhaps the characteristic which people most often associate with the industrial district's advantages over the large centralised corporation. Often people refer to the combination of flexibility and specialised production units typical of industrial districts as "flexible specialisation" and contrast it to Fordism, the inflexible organisation of production on mass market lines, employing dedicated machines and specialised, often unskilled or semiskilled, workers [see: Piore and Sabel, 1984].

Central to the organisation of the successful district is the role of *the workforce*. As mentioned, flexible response is one of the key competitive strategies that tends to mark out successful districts. A crucial component of this kind of response is the availability of a trained, adaptable workforce, and, possibly, an adaptable social structure and environment. An adaptable workforce goes hand in hand with an innovative atmosphere, speed of reaction, and a co-operative attitude. Adaptability in the workplace is aided by the breaking down of rigid divisions between managers and workforce, and the pervasiveness of an atmosphere of trust.

Trust and co-operation, so crucial to the successful performance of the district, is helped by an attitude that seeks competitive success not by aggressive cutting of direct labour costs but by general organisational competence, standards and productivity. The maintenance of high labour standards, including good wages, improves the performance of labour and the performance of the district. The establishment of good basic conditions, whether by collective bargaining with trade unions or by use of national or international law, is part of a social contract that lubricates flexibility.

II.2 Their appeal

What has made industrial districts known internationally, and caught the attention of researchers and politicians alike, is their remarkable economic success. They have penetrated international markets to an extent unprecedented for small enterprises. They have led regions to prosperity. They have propelled the Emilia-Romagna, Tuscany, Venetia and other provinces in what is now called the "Third Italy" from the mediocre position which they held two or three decades ago to the top of the regional income

ladder. Bologna, situated in the midst of dynamic industrial districts, was chosen last year as the city where most Italians would like to live. Industrial districts have contributed to move Italy as a whole into the ranks of Europe's front-runners. Its gross national product - both aggregate and per capita - is now well ahead of Great Britain's, and the country ranks fifth in the group of the seven large Western industrialised nations.

But it is not only this success story which has led us to choose the theme of "Industrial Districts and Local Economic Regeneration" as the subject for this conference. We believe that there are three reasons why the experience with industrial districts deserves discussion.

First, industrial districts are emblematic of the profound *industrial restructuring* which we have been able to observe in virtually all industrialised countries since 1975. The re-emergence of small units of production, the spread of subcontracting, and a geographical reorganisation of the economy have been essential ingredients of the transformation of industrial organisation.

Secondly, our theme touches on alternative ways of meeting the new *competitive challenges* posed to virtually all industrialised countries. We are interested in identifying strategies and forms of industrial restructuring and competition which do not infringe on labour standards but, on the contrary, are apt to improve and further develop these standards [see Sengenberger, 1990]. We are keen on spotting types of industrial organisation which combine economic targets, such as efficiency and flexibility, with social targets, such as good pay and good working conditions, participation and equity.

Thirdly, we consider it worthwhile looking more closely into industrial districts because they might tell us something about perspectives and ingredients for *development*. To promote "comprehensive and sustainable development" has come increasingly to the forefront of ILO concerns. It is a notion which goes far beyond the purely quantitative objective of attaining economic growth.

Industrial districts could stimulate the debate on development because they refocus attention on the critical role of "social organisation". They lead us to emphasise such things as non-hierarchical organisation, autonomy, co-operation, local and regional networks, competent entrepreneurship, and differentiated industrial structure. They thus set us on a track which is somewhat different from the standard development models which tend to see only financial resources and sophisticated technology as being the keys to economic and social advancement; these, in our view, are clearly not enough. We feel that what needs to be explained is the enormous variation in economic performance, and perhaps even its increasing disparity, in a world which appears to be increasingly equal in its access to advanced technology. That is to say, apparently, technology alone does not do the trick. Nor, alone, does capital infusion. How much money has been poured into the revitalisation of the old smoke-stack industrial regions in Europe without yielding the expected take-off? While some have finally come around in successfully restructuring their economic base, others seem to be bound to further decline.

III. The growth of small units of production

The past decade has been beset with apparently contradictory tendencies in industrial organisation. One of them has concerned the size structure of business. On the one hand, there have been claims that most of the new employment is generated by the small firm sector; delegates from the employers' group to the annual ILO international conference have stated repeatedly that the potential for employment growth is particularly strong in SMEs. It is also contended that small firms are more flexible, more efficient, and more capable of adapting to market requirements than large, cumbersome, bureaucratised enterprises. Repeatedly, international organisations have endorsed the idea that it would be worthwhile promoting small firms; and an OECD conference, addressed earlier this year to Eastern European policy-makers, argued that small and medium-sized enterprises are the basis for a healthy economy. They were said to accomplish the renovation of industrial structure, innovation and the diffusion of technology.

On the other hand you can read almost every day about a new wedding between two or more giant corporations. The rate of mergers and takeovers in the industrialised world moved at an unprecedented pace in recent years. Transnational companies have extended their empires, and formed new holdings in Europe in anticipation of the advent of the single market.

How do these two developments fit together? In an attempt to shed some light on these issues, we have examined - with the help of an external research group - developments in the size structure of business [see Sengenberger et al., 1990]. We started to ask whether and why small firms create new employment and what this employment looks like. What we found was the following.

Since the mid-1970s there has indeed been a shift in the size composition of business. There has been an increase in the share of total employment in small enterprises and establishments, that has largely occurred at the expense of large units. While the magnitude of the shift varies from one country to the other, it can be found in nearly all industrialised market economy countries, as well as in many newly industrialising countries. It is most visible in industry, but also prevalent in the service sector in a number of countries. To quote the latest figures from just one country: in France, small enterprises (with less than 50 employees) increased their proportion of total employment from 43.3 per cent in 1976 to 52.5 per cent in 1988. In the same period the employment share of large companies (with more than 500 employees) declined from 20.7 per cent to 14.6 per cent. The recomposition affected all economic sectors [*Le Monde*, 13 June 1990].

The shift is due to a varying degree to two different components: a decline of the average size of enterprises, or establishments; and an increase in the number of (small) new enterprises created; while the mortality rate of enterprises - and especially that of newly-created enterprises - has also risen, the birth rate exceeded the death rate, leading to positive employment effects in the small firm sector.

Countervailing trends towards larger businesses notwithstanding, the forces pushing towards smaller scale look sufficiently robust for one to be able to speak of reversal in the past 15 years of a previously dominant pattern of centralisation, i.e., a trend towards larger enterprises and establishments.

What accounts for the shift to small units? There have been several factors at work, none of which can claim exclusive power of explanation. First, small firm creation and small firm expansion are a reaction to *economic slump*. The shortage of wage-employment opportunities in a period of mass unemployment induces, or even forces, workers to seek employment in the small firm sector, or to set up their own businesses, and use cheap second-hand machinery and equipment that becomes available from firms going bankrupt. In other words, small business plays the role of a "shock absorber" for the economic cycle. There is evidence from industrialised and developing countries that the share of self-employment is linked to the level of unemployment [see ILO: *The promotion of self-employment*, 1990, pp. 15, and 19].

A surge of small businesses, and a loss of employment in large firms, occurred during the Great Depression in the 1930s. It recurred in the 1970s and 1980s following the recession after the oil shocks. Yet, when the national economies expanded again more strongly during the 1980s, the trend to small firm employment continued, suggesting that small firm expansion is more than a transitory, cyclical phenomenon.

Secondly, some of the shift in size may be attributed to the *sectoral shift* of economic activities from industry to the service sector which accelerated in the past 20 years. As the average scale of enterprises and establishments in services is smaller, the sectoral change would lead to smaller units. But again, this cannot be the whole story because we find a sufficient number of instances of small unit growth within sectors.

A further explanation frequently used relates to lower costs and a *better business climate* in small firms. Moving production to small plants, and establishing new small firms, could be a vehicle for saving on labour costs and on taxes, escaping trade unions and difficult labour relations, or evading labour market regulation and "sticky" rules. In fact, there exist substantial differentials in wages, and other elements of worker compensation, according to size of establishment; small firms are often exempted from certain social provisions, and legal or contractual protection; worker representation in small firms, either by trade unions or works councils, is weak.

The impact of these factors remains questionable, however. Why should these factors have mattered in the last 15 years, and not before? There are no clear statistical links between changes in size-related wages and the expansion of small firm employment. There are even cases of small firm growth in the face of a narrowing wage gap; moreover, where small firms pay much less than large firms they also tend to have lower productivity levels, so that unit labour costs in small firms are not necessarily lower. Incidentally, we have found that the claims that small firms are more efficient, or more profitable, cannot generally be substantiated.

Neither have we found evidence of superior technological standards in small firms. It is doubtful whether an attribution of innate economic superiority can be made to either large or small enterprises. If it were the small size of business as such that makes them perform better, why then should small firms decline at first and then later grow again? Also, and perhaps even more importantly, how can we account for the enormous variability in the economic viability and social standards exhibited by small firms by sector, region, and country? Why have small firms in the same industry excelled in some countries and failed in others? Why do we find highly flexible, efficient small firms, offering good pay, in some quarters, and so-called sweat shops in others? Why do we observe, even after holding industry composition constant, enormous size differences in business organisation in different economies? Japan and Italy, for

example, have a preponderance of comparatively small enterprises and establishments in their manufacturing sector, whereas units in the United Kingdom and United States are much more likely to be large.

In order to obtain satisfactory answers to these questions we need to get away from looking only at small firms. We must examine their status and role in the larger economic and institutional context, and see the expansion of small units as part and parcel of a profound and pervasive *industrial restructuring* which includes small and large firms in the analysis, and changing relations between large and small enterprises.

We will then see that large companies have altered their organisational complexion as well; and a good deal of the expansion of the small firm sector originates in organisational reform of large companies. Much has resulted from decentralisation, devolvement and disintegration policies initiated in large companies during the 1970s. *Decentralisation* of production occurs when large enterprises, or plants, are broken up into smaller units, but retained under the same ownership, by a division into small establishments, or by the creation of new subsidiary companies. There is evidence that compared to 15 years ago large firms have on average more plants, but these plants are of a smaller scale. Furthermore, we find a surge of *devolvement* such as licensing and franchising practices, under which large companies cease to own smaller establishments directly, but retain revenue links with them. Finally, organisational *disintegration* implies a fragmentation of large enterprises into separate units of ownership, or the increase of outsourcing of production and services. A variety of forms exist such as subcontracting, managements' and workers' buy-outs, and the splitting of enterprises into separate legal entities, such as "ownership" and "production" units.

The various types of fragmentation in the organisation of production enable us to explain why production and employment have shifted to smaller units. But does this imply that the large corporation must thereby fade away? Not at all; it would be difficult to argue that the large enterprises have lost power and influence; in fact studies, using indicators of industrial concentration, do not permit the conclusion that the power of large companies is vanishing. Rather, what seems to have happened has been the development of a new, and possibly, extended, division of labour between various types of firms, and firms in different size brackets. Many large companies have broadened and diversified their activities; they have entered new industries and offered more and more products and product families; but of each product they sell, they produce less themselves and leave it to other, mostly smaller firms; whilst integrating horizontally, through diversification and partly through mergers and acquisitions, they are disintegrating vertically. This interpretation would be in line with the statistical observation that in large enterprises the rate of increase in the volume of sales is above average, while at the same time production and employment is declining; conversely, small firms are expanding their production and employment at a rate more than average, but have sub-average increases of sales and value added [see: Bade, 1987]. All this would suggest that a substantial part of the restructuration that has taken place, including the expansion of the small business sector, has evolved under the control of larger firms, thus raising doubts about claims for the viability of independent, innovative and dynamic small entrepreneurs, whose rise is due to their superiority over large corporations.

However, while a good deal of the re-emergence of small units of production is linked to, and controlled by, large companies, there are instances of more independent small firm growth; or at least of small firms, which although they owe their birth to large

firm support, they have managed to exist increasingly by themselves. The most interesting cases are those where small firms operate in the same markets as larger firms, and are capable of competing effectively. Where this is the case, there seems to be one over-riding critical organisational prerequisite, namely a *horizontal-type organisation and co-operation* among the small firms; small firm industrial districts are not the only, but the most conspicuous, type of such small firm communities.

IV. Strategies and choice: The "high road" and the "low road" to industrial restructuring

The extremely varied performance of the small firm sector, that is, the co-existence of efficient, innovative small enterprises next to those that survive only through sweating or self-exploitation, is a reflection of the diversity of choice and competitive strategy.

As emphasised earlier, "smallness" or "bigness" of a firm - though not irrelevant - is in the end not the decisive criterion for its performance. What is crucial is the organisational and institutional context in which small firms, and large firms as well, operate. Small firms can become "big" through collective organisation and concerted action. The big problem for small firms is not being small but being lonely. What this metaphor means is that small firms as individual entities, acting on their own, are in a poor position to compete; they lack the resources, and the economies of scale and scope normally available to large companies; and they lack the political voice necessary for influencing their economic and political environment. In other words, they lack the facility for strategic action, that is being able to choose how they become and stay competitive; particular areas of economic activities apart, they need to link up with resource pools of others, be it large firms or small firms, to gain strategic options. Thus, links and networks are paramount to small firm success.

Links to others, exchange, and the sharing of resources are nowadays inescapable, even for the largest corporations. Toyota, General Motors, Volkswagen, Fiat, and other giants have formed strategic alliances through which they seek to cover the sharp increases in the levels of cost of R & D, or the design of world brand products, and the increased share of these activities in the overall cost of business. Such development occurs against the background of shortened life cycles, and faster turnover, of many investment and consumer goods.

In view of the extended inter-firm division of labour, co-ordination across enterprises is more and more assuming the role which co-ordination within firms and plants had in the 1960s and 1970s. Firms depend increasingly on specialised goods and services which need to be effectively co-ordinated to yield economic benefits. The relations between firms, between producers and suppliers, become of utmost significance; do they enter an exchange as super- and sub-ordinates, or as partners on an equal footing? Is the flow of know-how between firms a one-way or two-way street? Do firms share costs of investment and risks and uncertainties of volatile markets, or do they pass these on unilaterally onto some units or sectors, thus creating dependency and "social pollution"? It will very much depend on the nature of these relations as to whether subcontracting, for example, leads to precarious employment or not; and whether one gets dualism in the economic structure and segmentation in the labour market.

One may distinguish between two principal approaches by which enterprises, industries, or regions have tried to meet challenges of international competition. Small firm development is at the crossroads of these two approaches; it can go one way or the other. The first may be termed the "low road" to restructuring. It consists of seeking competitiveness through low labour cost, and a deregulated labour market environment. It is believed that cost-cutting will boost productivity and profits, and create new employment. Institutions and regulation of competition are seen as mere straightjackets, and should be kept to a minimum.

In a number of countries this approach has been recommended, and actually practised for the promotion of small firms, e.g., when small firms have been relieved from an industry-wide agreement and become part of two-tiered wage structures, or been exempted from protective labour standards, or been subject to tax privileges.

The problem with this approach is that the improvement it yields for competitive performance, if there is one at all, is frequently short-lived. Mostly it turns out that it accentuates the malaise. Poor wages and terms of employment hinder the firm in acquiring and keeping the labour required for efficiency and flexibility; and they rarely induce the firm to "invest" in its labour force to make it more productive. So, in the absence of better performance and alternative possibilities, further cost-cutting may become inevitable, resulting in a vicious, downward-spiralling circle.

The principal alternative to such "destructive" competition is the "high road" of constructive competition, based on efficiency enhancement and innovation; that is, through economic gains that make wage gains and improvements in social conditions feasible, as well as safeguarding workers' rights and providing adequate standards of social protection.¹ The key to attaining this is better organisation and a better mobilisation and utilisation of productive labour, which then permits a better use of technology (rather than the other way around).

To make labour more productive labour standards are indispensable. They are needed to curb destructive downward-directed competition in wages and working conditions; and promote constructive competition through co-operation and its sub-processes of participation, joint resource utilisation, and joint conflict resolution. Co-operation is needed for exchanging information, and thereby reaching common efficiency. It cannot be sustained without trusting relationships between firms, and between employers and work forces; we know from studies that a mutual understanding, or agreement, not to undercut wages and violate laws, is required to maintain trust.

Labour standards provide an opportunity to elicit constructive competition. They have often been unjustly criticised as pushing up costs, curbing efficiency, and stifling competition. It can be shown that standards are essential to achieve lasting and comprehensive development, and that various categories of standards, such as participation, protection, and promotion must act in concert in order to stimulate development.

Judging by what we know, we cannot say that industrial districts match the high road model in all cases and in every respect. In fact experience is mixed. As Sebastiano Brusco says in his paper for this conference, it is best to think of districts as lying on a

¹ This approach has been specifically demanded for SMEs in the conclusions of the High-Level Meeting on Employment and Structural Adjustment, ILO, 23-25 November, 1987.

continuum between "better" and "worse", or "more advanced" and "less advanced", with districts like Carpi and Prato being closest to the sort of ideal model we have presented whilst other areas are less advanced. However, even though the presence of the elements needed for the "high road" kind of competition in practice varies, as do the form they take, nevertheless it is clear that the general experience of the Italian districts, and areas based on similar principles in Denmark, Spain, and elsewhere, have demonstrated the kinds of elements that need to be drawn upon.

V. Industrial restructuring, industrial districts, and development

A desirable objective is to achieve a type of economic and social *development* which could be regarded as *comprehensive, balanced and sustainable*. That is to say, a "comprehensiveness" of development that is not merely geared towards quantitative objectives, such as economic growth, or more jobs, but also to autonomy, job satisfaction, a good working environment, and other quality aspects; "balanced" means that development will not proceed at the expense of others, i.e., other workers, firms, regions, etc.; and "sustainability of development" implies that, as the Brundtland report put it: "It meets the goals of the present without compromising the ability of future generations to meet their own needs" [*Our Common Future*, p. 43].

The experience of the industrial districts suggests lessons for development elsewhere. The key principles of organisation that appear to lie behind the success of the most advanced districts are summarised at the beginning of this paper, but it is worthwhile elaborating upon some of them here, and placing them in a wider policy context.

V.1 What sort of flexibility - active or passive?

If people had to choose a key word for industrial organisation in the 1980s, "flexibility" would be the most likely candidate. It is widely accepted that more flexibility is demanded, from enterprises as well as from workers. This need is usually linked to factors such as the intensification of international competition, a changing consumer demand in the direction of more differentiated products, and an increased desire for products of higher quality; these in turn evoke changes in the productive system, such as a capability for larger product variety, shorter product cycles, and accelerated innovation rates. To create this capability it is necessary to acquire the ability to respond to the new and changing production and market requirements, i.e., flexibility is needed.

Flexibility can take different forms and an important question is how they relate to the goal of development; it can take the form of "Active Versatility" or "Passive Pliability" [Semlinger, 1990]; that is it can consist of the ability to exploit market niches and quickly respond to orders, based on a skilled and polyvalent labour force; or it can also mean simply to submit to outside pressures from customers, and to accept cutbacks, and to pass on the flexibility requirements of the market to the workforce in a coercive manner; through expanding and retrenching production volume, forcing wage concessions, making "flexible" use of short-time and casual employment.

Small firms run a high risk of indulging in the second form of flexibility, as they are often exempted from protective regulation; they often have no formalised industrial

relations, no union representation, no works councils;² employer-employee relations are frequently highly personalised and patriarchal.

Apart from a skilled labour force, what would be essential to acquire the capability for "Active Versatility"? The general answer is: collective efficiency and association [see Schmitz, 1990].

V.2 Collective efficiency through specialisation and co-ordination

In the ideal case the industrial district comprises in one and the same local area all the various activities required for the development, manufacturing, and commercialisation of a product. There are the final assemblers, the producers of parts and components, or firms engaging in one of the successive vertical stages of production, producers of machinery and equipment, product designers, marketing firms, export specialists, banks, etc. That is, the district provides all the activities and services upstream and down-stream from the final product. If this vertical production process is well co-ordinated it can combine various benefits of specialisation, with the advantages of running a fully fledged business operation in which all essential business functions are integrated; specialisation can boost efficiency and quality, while integration can yield independence. To achieve this, collective inter-firm organisation and co-ordination is called for.

It can hardly be envisaged that a single small firm could carry out by itself all the functions necessary for competitive efficiency that the collectivity as a whole could provide; it would have difficulty financing the necessary, ever increasing research and development and design costs; or training the full range of skilled labour it might require; or indeed manufacturing all the components to go into a complicated product. Also, the small firm may lack the scale to operate effectively expensive capital equipment; NC or CNC machinery may, however, be profitably utilised in the small firm sector if the firm acquiring it provides special services for a number of customers rather than just occasionally for itself; at the same time the customers benefit from purchasing the product from the specialised producer at a lower cost than they could make it themselves.

Geographical proximity of the specialised firms may be vital for securing synergy effects, not only to reduce transport and other transaction costs, but to permit and lubricate continuous communication between the producers. For instance, substantial synergy effects may be obtained from a close, door-to-door co-operation of the producers and the users of capital equipment. The producer of tools and machines can tell the user, let us say a weaving or knitting firm, how best to operate the equipment, how to sort out problems of machine standstill, and other operational problems; conversely, the user can feed back information or deficiencies in the design of the machine, and perhaps even propose improvements; such information can then be taken by the producer to build machines which are better adapted to the needs and abilities of the users in the district. Each specialist producer benefits from an increasing expertise in his chosen product area, whilst all the firms of the district benefit from being able to rely upon the expertise of others when needed.

² See, for example, the Belier Report in France: *Rapport de M. Gilles Bélier*, Conseil Social au Ministre du Travail, de l'Emploi et de la Formation professionnelle, Paris, March 1990.

Not only in the sphere of production can individual firms benefit from a division of specialisation; this is also the case in services, and in marketing. A good example of the benefits of specialisation would be the export firm or export agency in the district. Italian industrial districts have excelled in exporting their manufactures. Exporting today demands an enormous amount of technical knowledge and legal expertise; expensive knowhow about technical norms, licences, legal procedures, etc., in foreign countries is needed. An individual firm would be hopelessly overburdened if it attempted to live up to that, and this might explain the reason why small firms have often failed to enter international markets.

The provision of co-ordinating agencies in the Italian districts, run by representatives of the firms, or their associations, providing what Sebastiano Brusco in his paper for this conference calls "real services" - providing advice on exports, making bulk purchases at favourable prices, obtaining credit at lower interest rates, handling accounts, promoting products at trade fairs, etc. - highlights the strong role of co-operation.

V.3 Competition and co-operation

The efficient co-ordination of the district's activities, and the promotion of dynamic growth is not simply a product of the unfettered operation of classic competitive market principles; on the contrary, what is at work is a complex amalgam of both competitive *and* co-operative principles. Certainly, competition, in all its forms (price, quality, delivery, etc.) is a strong feature relating firms producing similar products or at the same stage of the productive process. Weavers compete with weavers, dyers with dyers, etc. And because in a well developed district there are many firms specialising in similar products, or providing similar services, competition is rife.

But, as we have seen, there is also co-operation, and co-operation is at least as important as competition for organising the district. The papers for this conference by Lauren Benton (on Spain) and by Peer Kristensen (on Denmark) both point to the presence of various forms of co-operation in the most successful districts; and there have been many studies in other countries, including, for example, France [Raveyre and Saglio, 1984; Courlet, 1990], Japan [Friedman, 1988], and Britain [Pyke, 1989], that have highlighted the importance of co-operative mechanisms for improving the competitive capacities of small firm communities and networks. But of course it is the classic cases of Italy that provide the most compelling evidence for the role of co-operation. Sebastiano Brusco's paper for this conference underlines its importance in Italian districts; so do recent articles by Giacomo Becattini [1990] and Carlo Trigilia [1990].

The forms co-operation can take are several, and most have already been referred to; the subcontracting and dividing up of orders, allowing individual companies to accept orders beyond their normal manufacturing capacities (see the paper by Kristensen for this conference where he points out that this kind of co-operation allows individual manufacturers in Jutland to present collections or ranges that the *district as a whole* can produce); the collaboration between individual firms at different phases of the production cycle whereby "partners" develop together the most appropriate technical specifications and designs; collaboration to train labour for the district as a whole [see Hirst and Zeitlin, 1990]; whereas in a competitive environment small firms, unable to afford to train their own labour, will compete strongly to take as much as they can from an ever-diminishing pool, in a regime of co-operation and trust the same firms will

combine their resources to ensure a collective provision of skills; the collective provision of services already referred to, and the kind of co-operation that takes the form of "good neighbourliness" - lending of tools, passing on of advice, helping out in emergencies, etc.

In summary, then, industrial districts can be an arrangement for the joint procurement, development, utilisation and financing of resources, thereby overcoming the "resource gap" problem and attaining better economies of scale and scope; in this co-operation, as well as competition, plays a vital role.

V.4 A diverse industrial structure

By integrating all essential production stages, producer-related services, and commercial activities needed for producing a product or set of products within localised geographical boundaries, the industrial district is able to benefit from something of immense importance for independent development: a local diversity of industrial structure. In more complex cases the diversity is further increased when the production networks are able to orient themselves to more than one product family, as when two initially separate industrial districts begin to merge into one another. This has happened to some extent in parts of the Third Italy where we find in Italian provinces, such as Emilia-Romagna, as close neighbours such diverse industrial districts as ones focusing on knitting, ceramics, sports cars manufacture, agricultural machinery, and others. Such "horizontal diversity" offers the prospect of making the region less vulnerable to economic crisis; it guards against cyclical downturns of particular products, and against regional decline stemming from a mono-industrial economic base.

Horizontal and vertical economic diversity are prerequisites for a rich, and less vulnerable, *labour market structure*. More diversified demand for skills will lead to a broader stock of inventory of human labour qualifications available, which means in effect that firms have more options in the product market, and in the selection of production processes. Diversity may be seen as an element for independent and balanced development; lack of diversity as a sign of under-development.

To suggest the development of a diversified regional structure has implications for the global division of labour, for it would seem to be antithetical to a world economy which - following the principles of comparative costs and comparative advantages - would entail tight global specialisation, a world, for example, which in the extreme would entail the manufacture of computer chips only in, say, Taiwan and Singapore, the production of engineering machinery only in Japan and West Germany, and the growing of flowers in Kenya and Jamaica. To be sure a degree of international division of labour according to specialities, in accordance with climatic, historical and cultural traditions, is desirable; we have high esteem for the whisky of the Scots; on the other hand it would not make sense if the Scots were to start to make wine and try to compete with Burgundy. The point is that the global division can be pushed to a point where the benefits of local and regional specialisation are outweighed by the vulnerabilities and other paucities of knowledge and human skills associated with mono-structure. The deplorable setbacks in development of Sub-Saharan Africa and Latin America, indicated by real income losses and a declining share in international trade, are also a result of insufficient diversity, notable in manufacturing; there is a conspicuous absence in these countries of an investment goods industry, and the resulting ability to develop one's own appropriate technology. This deficiency can also be found in some

of the old smoke-stack industrial regions in Europe and North America, and this partly explains why they seem to have such difficulties of revitalisation.

Diversity is possible. There is no compelling reason to indulge in a global division of labour in accordance with variations in labour costs, as some would argue. Italian districts which have done well in such fields as footwear, leather products, textiles, clothes, and other traditionally labour-intensive industries, and Danish districts which have prospered in textiles and furniture, have demonstrated that these sectors are not necessarily doomed to disappear from high wage countries. Development in the North should not exclude the continuation of "old" industries, just as the South should not be precluded from a viable investment goods sector.

V.5 Endogenous regional development

Can industrial districts and small firm communities contribute to *endogenous regional development*, that is regionally adapted technology, and greater self-reliance through the mobilisation of existing resources, and self-created local organisation? This would be an alternative to expecting impetus, know-how, and financial inputs to come from elsewhere, by attracting incoming activities through tax exemptions, subsidies, the promise of low wages, and other means of competitive bidding. In fact, regions and municipalities have often tried to attract new firms, and new jobs, by outcompeting one another in their offers of low costs and the provision of a favourable business climate. One consequence is that the financial resources spent on giving incentives to firms are not available for investment in the regional or local infrastructure from which the economy as a whole could have benefitted. Attracting business with the carrot of financial incentives has often failed to generate permanent and stable development. Firms have used the incentives to set up plants in boom periods, and close them down in times of recession, hence creating nothing more than "extended workbenches".

Endogenous regional development, in contrast, would attempt to commit enterprises to continuous local and regional development. It would create a regional identity, economically, politically and culturally; it would integrate the key actors in the regions - firms, business associations, trade unions, the local and regional government, the employment exchanges, the regional banks - into regionally and locally based agencies, with all groups participating in efforts for regional development. It could lead to greater autonomy, and less external dependence; it could support new efforts to preserve and redevelop the physical environment.

It would, however, require a reorientation of existing structures and policies. Take the trade unions, for example; the principle of a territorial organisation of trade unions was predominant in the early, formative phase of trade unionism, but it increasingly gave way to trade union organisation, and worker representation linked to employment, particularly in large enterprises. Today, as large enterprise jobs have shrunk, standard full-time regular employment has declined, and as there are more footloose workers employed on a temporary or casual basis, strengthening territorial organisation at the local or district level, may again make sense for trade unions (and employers alike). It could possibly help to overcome the organisational distance of trade unions to small firms which W. Wassermann (in his paper to this conference) identified as the main origin of low union density and the lack of social protection in that sector. Territorial organisation may also be an answer to the increasingly blurred boundaries between firms, and between industries.

Refocusing development at the local level, and creating new or strengthening local industries, should not be dismissed as "romanticism", or a retrogression to a traditional kind of economic organisation. The trends towards are in some cases induced by large multinational firms which have been developing local production networks. The issue at stake is how regionalisation is done and in what way employers' and workers' institutions could be involved in the process.

On the other hand, one must not overlook certain dangers in emphasising local and regional development. There is a risk of increasing regional disparity and regional inequalities which may spill into pay, employment opportunities, and labour standards. In part, such disparities may result from the ineffectiveness of conventional public policy attempts to balance regional development. It is to be asked whether localism and regionalism work only if they are concurrently based economic, political, and cultural autonomy. These spheres go hand in hand, and support one another. The local economies cannot prosper if the municipalities have no degree of fiscal sovereignty, and no financial scope.

New localism should not mean egoism and parochialism. In fact, Italian provinces, such as Tuscany, developing strong business communities, benefitted enormously from their "cosmopolitan" orientations and their old trade links. As Ghandi suggested: "Think globally and act locally"; in modifying this principle in relation to industrial districts one might have to say: "Think *and* act both locally *and* globally".

V.6 Business community and social community

The organisation of economic relations in an industrial district tend to be intertwined with social relations; that is to say, the boundary between the spheres of business and community tends to blur. A consequence is that economic behaviour and standards are likely to be at least in part shaped by community norms and expectations, producing customary conventions and ways of doing business.

The advanced forms of co-operation to be found in the districts are greatly sustained by a social community holding supportive sets of values. An orientation towards long run development as an objective, rather than a quest for short term economic gains, would be a typical widely shared value. Others, such as belief in strategies of innovation, pride in the district's products and name, and a collective awareness might also feature.

An important element in such a community would be the pervasive reliance on *trust* as a guiding principle in business relationships. Being able to act "on trust" introduces an essential dynamism to the economy by removing the paralysing inertia that can occur when firms are afraid to take action because they are not sure that others will refrain from acting opportunistically by taking advantage of temporary weakness. In other words, it removes the fear of taking risks; or rather, it removes the risk. It allows entrepreneurs to engage in heavy investment on the understanding that other community members will buy the products of the investment, rather than take their custom elsewhere. It allows people to exchange commercial information, pass on design ideas, knowledge of technical processes, etc., knowing that "partners" will not abuse the trust bestowed upon them by making selfish, unilateral, use of the information to the detriment of the information giver; or fail to bestow useful information in return in the future. It means that an entrepreneur can be confident that he or she can rely on others

to help him or her out in times of difficulty, just as he or she would help others. The entrepreneur in an economic community built on principles of co-operation and trust knows that other firms will help him to remain part of the community because it is in their interest that his expertise and capability remain part of the collective resource pool. Producers visit each others' firms and freely discuss their production problems with one another - that is, the shop itself is open (see, for an elaboration of this: Piore [1990]). Firms do not, contrary to textbook descriptions of the ideal competitive market, seek every opportunity to destroy their rivals. In the ideal industrial district model, the individual firm does not see survival and success in terms of a fight to the death with rivals, a war of all against all; rather, the accent is on collective growth, where each individual unit benefits from the success of the whole.

As Charles Sabel explains in his paper to the conference, acting according to principles of trust does not imply that people cease to act in self-interest; rather, it means a specific, broader understanding of self-interest which includes the welfare of others, and one's own welfare in the future. Trust does not come overnight: it successively evolves and grows as people have the experience that social exchange can and does yield extensive gains.

Trust can be based on various catalytic institutions: kinship, ethnicity, political or religious affiliation, and collective agreement, be it informal or formalised. The frequently heard argument, that the successful industrial districts cannot be reproduced elsewhere because they are rooted in specific cultures, is right and wrong at the same time. It is right if it says that it takes time to develop trustful social relations; it is wrong in the sense that it denies even the possibility of the development of common norms of conduct in certain spheres. From various studies we know that even strong competitors can agree, sometimes formally, sometimes informally, not to contravene certain rules, such as the undercutting of wage standards.

V.7 Competent entrepreneurship

Most people would agree that the competence of the entrepreneur, that is the person who owns and operates a firm, is a key variable in business success. Yet it is surprising how little attention is paid in the areas of research and policy formulation to the question of how competent entrepreneurship is actually achieved. Should this not be a priority concern, given the substantial increase in the number of business start-ups that have occurred in some countries (in the USA, for example, the annual number of start-ups has doubled since 1970), and also in view of the much increased number of enterprise casualties? A substantial proportion of the newly-established firms dies within a few years of start-up.

Several issues should be raised in relation to entrepreneurial competence: How are entrepreneurs chosen or "made"? What opportunities do they have to continuously enhance their abilities? What happens to them if they fail and go bankrupt? Again, these questions must be linked to the broader business context in which small firms operate; and entrepreneurial competence should also be seen in connection with worker competence.

Industrial districts in Italy and elsewhere provide valuable insights. As workers pursue their careers in small firms they not only accumulate knowledge about their own particular trades but also about how to run the businesses in which they work. In the

Third Italy, persons setting up new firms frequently come from the ranks of experienced, senior employees, be it in small firms or in large enterprises. They are already familiar with the spectrum of managerial tasks and functions, the more so the more such tasks had been delegated to them by the owner. Thus, the sharing of managerial work between workers and entrepreneur creates the opportunity to learn how to run a business whilst "on the job".

An inducement to pick up entrepreneurial skills is provided by the existence of clear objective opportunities to establish new firms and the subjective perception of career paths towards self-employment. A local ideology or set of values promoting the idea of self-employment is a further inducement. Thus workers become "socialised" into a culture of small firm entrepreneurship. In Italy and Germany, early socialising into the role of businessman is to some extent undertaken in the artisan or the *Handwerk* sectors, where there is a career path from apprentice to journeyman and on to master or/and business owner. In Denmark's districts in Jutland, entrepreneurs are also produced in the atmosphere of a longstanding local ideology favouring self-employment, with expectations and opportunities further encouraged by the maintenance of a tradition of training workers in broad based skills that can be flexibly adapted to rapidly changing market requirements.

In the context of an economic environment dominated by small firms, the desire and expectation of establishing one's own business is "normal" and culturally acceptable. In areas dominated by large firms, in contrast, such as in parts of Great Britain, the strong self-identity of "wage-worker" experienced by the mass of the community can militate against a possible self-image of employer or entrepreneur; this is all the more likely where working experience has been restricted to tightly defined manual roles, in large hierarchical organisations, typified by remote managerial co-ordination. In the small firm industrial districts distance between management and shop-floor is necessarily short, and sharply defined manual and mental distinctions tend to break down. It may not be by accident that economic dynamism in the recent past has been in areas and regions in Europe which were outside the traditional industrial heartlands.

The chance for success may be significantly improved if the setting up of a new firm is organically tied into the growth, and the extended division of labour, of a business community. This presents an alternative to becoming a firm owner "out of the blue", i.e., totally unrelated to existing firms. We know, for example, of the immense difficulties, and the high failure rates, of small businesses started by unemployed workers (who sometimes under existing public programmes use their capitalised unemployment benefits to start on their own without being adequately prepared for this venture).

Another important question is what happens to the entrepreneur, and the workers he employs, if the firm goes bankrupt? Does this mean social disaster, or are there chances for a "softer landing" in the sense of not all qualifications and experiences accumulated in the firm being lost. Statistical information from Italy indicates that there is a sizeable volume of movement between the status of dependent employee and entrepreneur and that where bankruptcy occurs the reintegration of the workers and the owner into other firms in the district is likely to occur without the stigma of failure.

Entry into and exit from business may be related. Entry may be less risky when the cost - individual and social, material and immaterial - of a business is limited. This implies that small firm promotion should not only be geared to removing entry barriers, but should be concerned with how to deal with the serious problem of failure.

V.8 Labour

Our experience with industrial districts directs our attention to the crucial importance of labour as a dynamic factor of production. Too often economic analyses ignore the labour factor, or at best treat it almost as an afterthought - something that should be mentioned but not treated as integral to economic success. If labour is included, usually it is referred to in static terms, as a cost on a balance sheet - like the cost of land, or a bank loan - but not in active terms, as an input of varying qualities and varying effectiveness.

In recent years, as economies in general have undergone enormous restructuring, in the face of new types of competitive pressures and market demands, the quality and value of the labour force has come to the forefront of managerial thinking. The most sophisticated managers, and perhaps those in the giant car firms are to the fore, have realised that survival has meant both the reorganising of relations with suppliers - on the lines of co-operation and trust - and the reorganising of relations within the factory. The essence of the shop-floor reorganisation, and change in managerial philosophy, has been the recognition of labour as a resource that can give different returns according to circumstance and organisation. Everywhere, the movement has been to release worker initiative and to increase worker involvement by breaking down old ways of working and inflexible divisions between jobs and between mental and manual labour.

A basic requirement is the presence of a pool of local labour and expertise versed in the various functions and processes associated with the main product of the community - be it shoes, furniture, machinery, or something else. The widespread expertise might be handed down "through the community", from father to son, mother to daughter, and from colleague to colleague, such that it forms part of a longstanding cultural heritage for the area. Alternatively, or additionally, the expertise might be provided by technical schools and craft colleges. Accounts by Vittorio Capecchi in a recent publication on Emilia-Romagna [in Pyke et al, 1990], and Peer Kristensen on Jutland (written for this conference), emphasise the leading roles of such institutions. Other accounts from Italy have noted the part played in the past by large firms introducing and disseminating new skills.

In the best cases of industrial districts a "high road" industrial strategy is the norm, a strategy aimed at continuous product improvement, fashion awareness, and innovation. Such a strategy places a high value on the quality of the labour force and the quality of relations between managers or entrepreneurs and employees. Continuous restructuring, with the introduction of new technology, necessarily involves continuous training, reskilling, and labour mobility. Workers need to be broadly trained in order to provide a flexible supply of labour that can adapt to changing market requirements; at the same time, the workers increase the marketability of their skills, the more so that there are opportunities for people to apply themselves to the needs of more than one district - as in the case of "horizontally diverse" regional agglomerations - either as workers or entrepreneurs.

The district's great adaptability depends on a flexible labour force. Flexibility, as we have already mentioned, is now something widely desired, not just in industrial districts; and the way it is implemented can vary. To be successful with a "high road" industrial strategy, the labour flexibility must be achieved in such a way that all sides of industry benefit. As we indicated earlier, flexibility must be implemented in order to achieve "Active Versatility" rather than "Passive Pliability"; it must be implemented so

as to achieve an economically efficient labour allocation, but not at the expense of security and loss of income, and the undermining of worker confidence and motivation. Basically, there have to be mechanisms in operation that remove the age-old fear of unemployment without imposing total sclerosis on the system. This is perhaps one of the greatest challenges that new patterns of industrial organisation are creating for workers' organisations and employers' organisations alike.

There is evidence that in many cases of industrial districts the security has been provided, at least in part, by "family" mechanisms, such as the support given by extended families in times of need, and the presence of several family members capable of earning, and the availability of several alternative sources of employment or income (such as employment on the land). However, a stronger framework for security could also be provided in the labour market, involving institutions and conventions to "cover" workers' losses incurred through structural change. Only by providing such security and removing coercion can it be expected that trust, loyalty and active co-operation will prevail.

Our studies indicate that particular care must be taken to ensure that the "cost" of flexibility is not passed on to marginal groups so that certain individuals are coerced to work non-standard hours, or extended hours, not of their wishes. In many Italian districts it would appear that much of the labour flexibility - particularly "numerical" or working hours flexibility - is provided by women. An important issue is the extent to which the required workplace flexibility, and labour flexibility, *complements* the organisation of household time and the pursuit of activities in other realms, including activities aimed at acquiring other sources of income. In other words, again the terms on which the flexibility is provided are important.

It may be that in order to achieve a regulated system that promotes both efficiency and equity, old practices, assumptions, and institutions based on the dominant mass production, large firm model of the post Second World War period might have to be jettisoned and new concepts put in their place. At the heart of a new organisation might be a social security system which effectively deals with a variety of non-standard working patterns [see Rodgers, 1989], encourages change by not penalising workers for (flexible) job loss, recognises that "work" takes place in the home as well as the factory and the office, and conceives of the worker as a crucial active input to the success of the business - the effectiveness of which will be recognised as likely to vary according to perceptions of long-term opportunity, security, and adequate labour standards.

V.9 Strong interest groups

It can be argued that the conditions for the provision of good labour standards, including employment security, the maintenance of a highly trained adaptive labour force, and the installation of a regime of trust and co-operation, can best be secured by strengthening local interest groups and local regulation. There is a need, perhaps, for local communities to come together to overcome narrow sectoral interests and the ravages of destructive competition. In Spain, political and economic decentralisation, according to Lauren Benton in her paper for this conference, has provided new opportunities for local alliances to come together to promote their regions. It is this political opportunity which she sees as the best hope that potential districts could be promoted into actual districts along desired lines. In Italy, the importance of organisations representing small businesses, like the National Confederation of Artisans,

is well known. In Denmark, Peer Kristensen argues that the industrial districts there, and the embryonic districts, would be better served if there were a small firm association that was not dominated by, or subordinated to, the interests of large firms. Small firms, so the argument goes, need to have a political voice of their own to represent their specific interests; and so too do industrial districts. Like Lauren Benton, Peer Kristensen sees that certain areas have taken on characteristics reminiscent of the Italian districts despite the absence of any planned conscious strategy; the opportunity is there, he says, for the intervention of conscious strategy.

VI. Conclusion

In our view, the experience with industrial districts in Italy, and similar phenomena in Denmark, Spain, Germany, Canada, and elsewhere, have demonstrated the comparatively successful organisation of local economies according to the kinds of principles we have discussed in this paper. We believe that these organisational principles could be borrowed for use in other places. Of course, it is not being suggested that somehow the total Italian experience could be simply transferred to another country, such as Hungary or Czechoslovakia, or Southern Italy; rather, what is suggested is that these regions learn from what has happened in the Third Italy and Denmark and examine how the sorts of principles that we have highlighted could be successfully applied to, or adapted to, local circumstances.

As Giovanna Ricoveri has pointed out in one of her papers for this conference, the starting point must be the current conditions existing in the area to be developed, from which point efforts should be made to steer the local economy in the direction of the industrial district model or something similar. This "directing", however, should be by consent, and, as argued by Lauren Benton, Charles Sabel, and others, it would necessarily involve close discussions with all the leading political and interest groups, including the employers and trade union bodies. An objective would be to encourage political consensus and collaboration in an atmosphere of trust.

It is not our aim in this paper to put forward specific policy proposals; these are being covered by others and they will be discussed during the two days of conference. We will, however, in this final concluding section make a few remarks of policy relevance. Our experience studying the industrial district phenomenon has led us to question some of the assumptions on which policy initiatives undertaken by national governments and international agencies are based. One assumption still made by many is that big is better and more efficient. Our finding is that "it depends"; small firms can compete when organised in the appropriate way. And this competition need not take place on the basis of inferior working and payment conditions; we have found small firm sweat shops operating alongside relatively high paying small firms using the latest technology.

Another assumption often made is that "traditional industries", like textiles, shoes, etc., could not survive, and should not be promoted in advanced industrial economies, typical of Western Europe, and that they should be allowed to migrate to low paying developing countries. Policy-makers should note the successes of countries like Denmark and Italy in just these kinds of sectors.

Related to the last assumption is one that says that developing countries, and perhaps countries in Eastern Europe, should rely on using their "natural advantage" of abundant cheap labour to attract outside capital and develop traditional industries. Our

research indicates that the cheap labour, low labour standard, route to development (what we call in this paper the "low road" strategy) is neither necessary nor desirable. Neither is it necessary to rely entirely on attracting outside "footloose" multinational companies; such companies could, of course, have a role to play, but we think regions should also consider promoting endogenous development from local resources and under basically local control.

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International Conference
on

Industrial Districts and Local Economic Regeneration

(Geneva, 18 & 19 October 1990)

Paper No. 7

The industrial district model as an aid to new industrial policy

by

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Rome

Organised by the
New Industrial Organisation Programme
International Institute for Labour Studies
with the support of the
Commission of the European Communities

Extract from R. Garavini et.al. *La quarta Italia - il lavoro e la politica industriale nei distretti e nelle aree integrate in Italia*, a cura di P. Brutti e G. Ricoveri, Ediesse, Rome, 1988.

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The following pages are an extract from the book by R. Garavini et al.: *La Quarta Italia - Il lavoro e la politica industriale nei distretti e nelle aree integrate in Italia*, a cura di P. Brutti e G. Ricoveri, Ediesse, Rome, 1988. The book reports on research carried out at the *Confederazione Generale Italiana del Lavoro* (CGIL) into the subject of Italy's "industrial districts" and the roles of trade unions and other institutions. In fact, the research, and the following pages, employ the term Areas of New Industrial Development (ANIDs) which no doubt strains, to some extent, the classical definition of the Marshallian industrial district. Through its use we mean to include in our field of analysis all territorial areas of some size which are characterised by a marked presence of integrated small- and medium-sized firms and in which life is centred around one prevailing *manufacturing* activity. We found that there are many such industrial districts in Italy, particularly in the North-Central areas of the country but also a few in the South.

The internationalisation of productive processes, the fall in growth rates of international trade, the emergence on the world market of the newly-industrialised countries, and the third industrial revolution are the principal features of a new phase confronting companies, therefore forcing them to introduce radical changes. Such changes involve systems innovation, tertiarisation, and financierisation. The problem facing the ANIDs is the fact that because they are composed predominantly of small and medium-sized firms, they are much less able than large single companies to respond to the radical transformations now occurring. At the beginning of the 1980s, the larger companies managed not only to fully reinstate their profit margins, but also, in more general terms, to reassert their economic and political hegemony. The new division of labour, the externalisation of functions, tertiarisation, the broadening of research and development, process innovation, and the use of new product technologies, are all developments that large companies have been able to implement while taking care to avoid factors that would contribute to the wastage of resources, to disjointed production, or to uneconomical practices involving duplication or errors of scale. This overall reorganisation has been achieved with the maintenance - indeed the reinforcement - of the larger firms' ability to make strategic decisions and of the functions that characterise them (ranging from finance to information technology).

Therefore, one has to ask whether the companies operating in the industrial districts are in a position or have sufficient resources, to make the major innovations that the situation demands. Such firms can no longer count on a further intensification of labour. There are two reasons for this: firstly, low pay has now reached levels that rule out further elasticity, and any attempt in this direction would have negative effects on the overall prospects for the area, undermining its chances of survival; secondly, the cost of labour *per se* has lost its former importance in the overall structure of costs, while other aspects, especially human capital, finance, product and research policies, and innovation, have become decisive. Further, the companies of the industrial districts cannot hope to emerge from this upheaval without facing up to issues of environmental deterioration and the depletion of natural resources, which in many cases already demand urgent consideration (the tanning industry, ceramics, etc.) and which neither workers nor the general public are willing to see continue unchecked.

This problem is of the greatest importance for Italy, given the significant position that the industrial districts have come to occupy over the last few years both within the Italian manufacturing system and in regard to patterns of employment following the crisis of the Fordist large-scale factory. The problem has not only to be confronted

boldly, without underestimating the difficulties, but also tackled simultaneously at different levels. From "above", changes are required in legislation and in the methods by which local authorities intervene in business and labour affairs; and, on the terrain, in the individual affected areas, with regard to specific locally-based disputes regarding manufacturing developments and improvements in contractual and social conditions of work, there is a need to implement the instruments of industrial policy and labour policy, along with the already-existing bargaining procedures, while involving the national union as the political broker.

We shall now turn our attention to the relationship - if indeed there is one - between the development of the ANIDs, their prospects, and the economic realities of Italy's southern regions.

Our field survey of Italian ANIDs has strongly underlined the gap in social productivity between northern and southern Italy. Historically, the ANIDs came into being, and developed spontaneously, in the centre-north of the country, and it is only recently and to a very limited extent, that they have spread to a number of southern regions - Abruzzo, Puglia, and - to a slight degree - Capania. They have still had no real impact in the toe of Italy or in Sardinia or Sicily. This lag is not solely confined to those ANIDs that are based predominantly on manufacturing industry. It is apparent in every form of productive or service industry: in specialised agro-industrial areas in the south, and in embryonic service areas in some of the large cities and regional capitals of the south. The services offered by the said embryonic areas are of a broadly traditional type - despite some new developments, particularly in the Naples area.

In our opinion, ANIDs may provide a useful model to guide the implementation of the extraordinary measures introduced by Law 64. Indeed the new legislation targetting the south paves the way for such a role for the ANIDs by investing local authorities with the power to draw up plans to be financed from resources made available by special measures, and by placing control over the special funds for small business firmly in the hands of the regional authorities.

The new industrialisation and re-industrialisation of the Italian south will only affect sections of large-scale business, particularly in the state-owned sector. Consequently, small and medium-sized firms, organised as districts, will have an increasingly important role to play as areas of specialised production. These are not only localised but also increasingly integrated and systemic, relying on local resources and working in single manufacturing sectors, and therefore able to compete on both the Italian and international markets. The point of reference has to be the existing "backward" industrial realities, where "black" labour and rock-bottom wages predominate in situations reminiscent of illegal sweatshops, operating for a single purchaser. Mainly it is a matter of initiating a process founded on "primitive" specialised activities, practically devoid of autonomy. Our view - based on experience - is that it is these precise conditions that must be taken as the starting point, in an effort to steer them in the direction of an industrial district model, rather than attempting to transplant into southern Italy productive activities that are wholly alien to the local socio-economic system.

The creation and development of areas of specialisation in southern Italy can be promoted by the use of available public resources and can also take the form of manufacturing or service "spin-offs" generated by large public and private enterprise. In Naples, for example, it might be possible to set up ANIDs with links to the Selenia,

Aeritalia and Ansaldo companies. In other cases, for instance in Calabria, an agro-industrial district might develop out of an existing area of specialisation. It is certainly not a question of reproducing experiments tried and tested in central-northern Italy, but more a matter of planning new approaches on the basis of specific local circumstances and of possible synergies (systemic or district development). The task involved is complex, demanding a huge commitment from all those involved, above all from trade unions and employees, but also from management. Such a commitment is all the more imperative in view of the grave obstacles that clearly hinder local authorities in southern Italy in their efforts to promote development. With this in mind, much food for thought is provided by events in Palermo where Leoluca Orlando, the city's mayor, has made an explicit request to Rome to temporarily replace local government staff, particularly at the executive and planning levels.

This point introduces the issue of the general reorientation of industrial policy and the new sharing-out of powers of intervention between central and local government. In this analysis, the function, responsibilities and powers of the Regional authority will play a vital role. As regards industrial policy, we would like to put forward a proposal for reform with three distinct elements:

- (1) devolution to the Regional authorities of decisions, functions and resources affecting small and medium-sized business, at present largely vested in central government;
- (2) the recognition that decisions on industrial, local, and environmental policy affecting small and medium-sized business should be reached - within the framework of national guidelines and laws - at regional government level - or even at local authority level, in so far as individual regions decide to delegate such responsibility to them;
- (3) the prioritised channelling of resources already allocated or earmarked for small and medium-sized business to promote firms that opt to organise themselves as "districts".

The approach outlined above is slow to influence public opinion, even though it has now gained widespread acceptance in Italy. In many western industrial countries (in particular in Germany and recently in Britain) - where small and medium-sized firms are of a lesser relative importance than in Italy - considerable concrete experience has already been acquired. Franco Momigliano, an expert in this area, has referred to Italian industrial policy as a model that appears to be "standing on its head" when compared to industrial policy in other leading western countries. It is standing on its head in several different ways. Firstly, Italian industrial policy is equipped with few instruments (mainly of the discretionary hand-out variety), and yet is expected to achieve a great many objectives, each of which individually demands highly specific means. Secondly, it is splintered between a range of centralist decision-making bodies and strategic plans, which ensure neither consensus on options and priorities nor the involvement of regional and local government. Lastly, the responsibility for implementing and managing approved measures remains firmly with central government, with the attendant bureaucracy, inefficiency and rule by party-patronage that this inevitably entails.

The proposal to devolve an important wedge of industrial policy to regional governments, working within the national framework, would go a long way to solving one

of the problems that besets the present model of public intervention in industry. The fact of taking complex and co-ordinated measures at local level (and the majority of current industrial policy interventions fall into this category) generally rules out the adoption of automatic decision-making procedures and the ability of central government to make arbitrary decisions. The devolution of the decision-making process advocated here would restrict centralist abuses and restore transparency to decisions. There would remain the problem of co-ordinating complex interventions and ensuring their effectiveness: therefore implementation procedures also have to be simplified and managed from the affected local area.

However, regional governments - with very striking differences between central and northern Italy and the south - already have broad powers to intervene in matters affecting small industry and exercise these powers in a variety of different ways. Schematically, one should mention grants to offset labour costs; coverage of apprenticeship costs; local credit terms for innovation and new investment; and the provision of various kinds of service (information technology, advice on market penetration, etc.). Regional governments and local authorities are already therefore playing an important part in locally-based industrial policy, and with the planned reforms in local and regional government their role is bound to grow. Other bodies, such as company and small firms associations, co-operative associations, large-scale public and private business associations, and associations of banking institutions (especially locally-based ones) are all becoming increasingly involved in small enterprise development.

Lastly, local industrial policy touches on vital issues of democracy, offering trade unions an opportunity to organise and attract new members and to expand into small-scale business and industry, and thereby to strengthen local bargaining positions. For a country of highly developed or "mature" capitalism such as Italy, this emphasis on the region and the locality is evidence not of splintering and provincialism but rather of the sophistication and depth of a complex economic, social and institutional reality. Nor does this local emphasis imply the "end of the national state": rather, it is a new level at which different bodies can meet and engage in dialogue, in an environment that sets a high value on difference and pluralism. But this localism - and the past experience of Veneto and Emilia, regions with very different historical backgrounds and traditions, provides clear proof of this - is held back and shackled by legislation and by a centralising national state, the attitudes and behaviour of which fail to provide scope for specificities and differences, and which operates at a low level of efficiency.

We shall now turn our attention to an examination of the instruments appropriate to an industrial policy with a district-based approach. A fundamental feature of the proposal advanced here concerns the prioritised and exclusive allocation of resources to SMEs (small and medium-sized firms) *organised as a production district*. This is of such fundamental importance that we have subordinated to it the entire package of initiatives generally designed to provide support for SMEs. The central target that we wish to pinpoint with this intervention is not therefore the small or medium-sized business as such but the SME that is organised (or is awaiting organisation) as a production district.

The reasoning behind this feature of the proposal is based on both structural considerations and on an analysis of current economic trends. Firstly, as has already been pointed out, small businesses organised in districts are more efficient than firms operating in isolation; secondly, if in the past districts were able to catch up with and even overtake large firms in the race for efficiency and competitiveness, today this is no longer the case. Districts are not large-scale individual companies, but collections of

predominantly small firms: their relative disadvantages, when faced with the need to adapt to changes in technology, markets and labour organisation, should not be underestimated. Nor are these disadvantages simply the accumulation of individual aspects of a single problem: the difficulties they face are not simply in gaining access to capital markets; in finding out about and introducing new technologies, new materials and new process and product techniques; or in their repositioning on Italian and international markets, and in up-grading their human capital.

The problem confronting small and medium-sized companies is more complex than this: it consists in their clouded perception - prior to and more serious than any difficulty regarding implementation - of the direction in which they need to make adjustments. They are unable to draw on experience, because the innovations that they need to make in order to keep abreast of the upheavals in computer and other technologies, in markets and in products, are not only very rapid but also utterly unprecedented. Such innovations far surpass the possibilities of a single small or medium-sized firm. They might be within striking range of an ANID, but ANIDs are basically collections of firms whose high degree of cohesion drops away when faced with change.

For all these reasons we believe it is necessary to pool available resources in order to introduce measures of a scope and quality sufficient to carry through that strategic repositioning which, according to the findings of our research, every ANID urgently needs. The qualitative leap required involves planning on a large scale, to create a critical mass of investments sufficient to respond to the challenge made by big business and by international competition (from Italy's traditional competitors and also from the newly industrialising countries).

The textiles university of Biella is one example of a district-based centre providing services for both management and workforce. The Biella approach is of considerable value. The centre provides advice and assistance to firms, certifies product quality, carries out trials on new machinery and process technologies, acts as a computer skills and technology documentation centre, and also as a centre for the training and upgrading of human capital. It is moreover a public centre, inasmuch as the regional government is the majority shareholder, while at the same time enjoying private legal status. Indeed, private companies, including some leading ones, play an extremely prominent role in the centre. But the Biella university does not provide the only model possible, and clearly it cannot be uncritically transplanted into a different environment. Apart from other considerations, the range and quality of resources needed to establish such a centre are simply not available in many other areas in Italy, and are especially scarce in the south. In other words, we do not think that every industrial district can turn into a Silicon Valley, backed by a university comparable to Stanford. We believe however that measures affecting the ANIDs need to make a real qualitative - and quantitative - leap, and that this has to entail a concentration of resources.

There appears an urgent need - including on the part of trade unions - to rethink the whole Italian experience of business service centres; to avoid falling for the mystical notion that business services should on their own be able to trigger innovation among small firms and to create a fertile business terrain, without the slightest attention to scale, regardless of any precise guidelines or specialised programmes, and in the absence of a new and carefully-designed national framework to provide support and guidance. This much-needed national support relates to: new instruments for the diversification of sources of capital supplies, such as closed funds, venture capital and merchant banks;

the reform and strengthening of the *Istituto Commercio Estero* concerning the provision of information and assistance relating to foreign markets; the reform of legislation governing the purchase of technology incorporated in machinery and of technology that cannot be incorporated or that is non-material, such as knowhow, software, trademark and patent policy; the wide-ranging construction of local infrastructures, especially metropolitan structures; and instruments and regulations to protect the environment and natural resources. In our view, local industrial policy can and must develop in line with the resources of the locality and take full account of local economic and social trends. But it must also acquire a firm anchor-hold in national legislation, or run the risk of being ineffective and of disintegrating.

The restructuring of large companies - especially in the south of Italy, and at present specifically that of steel producers - has dramatically underlined the need to introduce new industry at the local level and to provide new jobs for workers in specific areas or labour pools. We think that this demand can mesh 'positively' with the work of the ANIDs, to the extent that plans to re-industrialise such labour pools could and perhaps must be organised as systemic development areas and industrial districts - in the broad sense of the term (i.e., including agro-industry and the productive services sector). We believe moreover that a considerable proportion of local re-industrialisation already entrusted to the *Gestioni Partecipazioni Industriali*, under special laws enacted since 1980, could well be grafted onto this same axis of local industrial policy. A nod - however slight - in this direction may be detected in the recent (June 1988) agreement between the trade-union confederations and the *Istituto Ricostruzione Industriale* (IRI) regarding the forms that IRI's reindustrialisation interventions are to assume in those areas where the steel industry is undergoing restructuring.

Furthermore, this might receive encouragement from the programmes and grants that the European Economic Community has for a long time set aside for the creation of new small and medium-sized firms (up to 500 employees) in areas hit by industrial decline and recession. The EEC's Business Innovations Centres (BICs) are joint stock companies, set up by local authorities, chambers of commerce, by *Medio Credito* and by other local banks and businesses; the companies involved in the steel-producing areas are IRI-SPI and FINSIDER. The BICs operate as both providers of business services and assistance centres and also as finance channels, with EC funds. However, at least as far as Italy is concerned, the BICs have yet to achieve appreciable results. This is because BICs are non-specific centres that aim to promote the setting up at the local level of small and medium-sized firms regardless of the sector to which they belong, i.e., without requiring or ensuring that the said firms be linked to one another by functional relationships, as occurs with districts. This is a very serious limitation and threatens to undermine attempts to bring new industry into the areas where BICs are created. Experience in the south of Italy - in particular as relates to Law 219 of 1981 for the post-earthquake reconstruction of the provinces of Naples and Avellino - fully demonstrates that to bring about the development of a locality the firms that are implanted there must not only have a link with local resources and cultural life, but must also establish a fabric of industrial relations and reciprocal services, in such a way as to promote the industrial "specialisation" of the area. Whenever this essential dimension is overlooked, the newly-founded companies fail to take off and are unable to ensure the development and/or the reindustrialisation of the local area. This is because each small and medium-sized business responds to and interacts in line with the requirements of the company or the groups to which it belongs - at times this may even be a multinational, whose head office is outside the area - and is not sensitive to the demands and requirements of the locality and its people.

The way in which Italian BICs are designed and set up therefore needs to be modified, and the changes have to be followed through by whichever public bodies - local government or IRI - are involved in running the project. This can be achieved by means of agreement protocols drawn up with the trade-unions. It has recently transpired, for example, that the BIC in Taranto is on the point of launching 19 different projects ranging over a wide variety of fields (from hybrid circuits and the reconstruction of electronic cards to tinned plate containers, to special tools, to environmental protection services for radioactive areas, to building mortars). No gift of prophesy is required to see that this form of industrialisation is neither local in nature nor systemic, but dependent. It is equally easy to predict that it will find it hard to "take off", and that it will not succeed in solving the problems raised by the shrinking of ITALSIDER. Another route has to be found.

International Conference
on

Industrial Districts and Local Economic Regeneration

(Geneva, 18 & 19 October 1990)

Paper No. 8

Italian industrial districts: neither myth nor interlude

by

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Organised by the
New Industrial Organisation Programme
International Institute for Labour Studies
with the support of the
Commission of the European Communities

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I. Introduction

Discussing the prospects for small-firm development, David Landes, a well-known historian of the Industrial Revolution, returned to the question: "Is small really beautiful?". This time, the answer was "no!". Landes concluded starkly that mass production based on large-scale industry "remains *the* form of production best suited to the requirements and resources of the majority of consumers". The view expressed by Landes reflects an assessment that has gained ground steadily in Italy, in response to the recent difficulties faced by small firms and to the success of large companies during the 1980s. There is a growing temptation to view small-firm development as an interlude that can now be seen for what it was. This temptation is apparent in international literature, too. As Bennett Harrison has put it: "the big firms are coming out of the corner". My view, however, is that greater caution is required.

The pitfall that now beckons is the very opposite of what it was a few years ago. In the early 1980s, there was a strong temptation to present small firm industrial districts as *the* emerging successful form of economic organisation, contrasting them with declining large companies. "Flexible specialisation" was identified at times too rigidly with small firms. Paradoxically, the risk today is the exact opposite of this. It is to write off the experience of industrial districts as a brief interlude and to make a distorted assessment of the recovery of the large firms. A less partisan and more evenly balanced approach is needed.

Italian experience suggests that industrial districts should be seen as neither myth nor interlude. The notion, therefore, that the relations between large and small firm models are a kind of "zero-sum game", so that the success of one form can occur only at the expense of the other, should be rejected. Such an idea is not only mistaken in historical terms, it is also seriously misleading as a key to understanding more recent developments. There are at least two good reasons why this is so.

Firstly, in view of the profound transformations to the organisation of production that are continuing to assail the economies of the highly-industrialised countries, a categorical opposition between large and small industry, defined in isolation, makes less and less sense. Size, in terms of numbers of jobs or of employees directly involved in productive work, has lost much of its importance as a factor in economic success. In other words, to be beautiful it is not enough simply to be big or small. Rather, it is the ability to adapt to an environment that has become more uncertain and unstable, by combining internalised activities with activities founded on co-operative and/or market relations with other firms, that seems to exert a decisive influence on a company's success. Consequently, even if current changes are still very fluid and rule out any clear definition of interpretive models, there is a growing consensus that the creation of organisational synergies - the formation of networks - is assuming greater importance than the mere size of individual firms. These networks can take on different features. They may be centred on large traditional companies, concentrated in certain areas, caught in the throes of restructuring; or on a set of small firms that are seeking closer

links. In either case, the organisational forms in question are far removed from the old-style vertical integration and function-internalisation occurring within a single company.

If one bears this phenomenon in mind, a better assessment may be reached regarding the second aspect that I wish to emphasise: it is becoming ever more difficult to lump small firms together in an all-purpose "small" category. There is, in fact, a wide range of different kinds of small firms systems. In my view, this is one of the clear lessons, especially as regards Italy, to be learnt from more than a decade of intense research and investigation into small business, involving economists, sociologists and other experts.

As Sebastiano Brusco has pointed out, at least three different types of small firm can be distinguished. The first type is the "traditional small firm" that produces directly for a market of non-standardised goods and that may - but does not necessarily - have to rely for its competitive position on low labour costs and weak labour protection. A second type is the small firm that acts as a "dependent sub-supplier". This kind of firm manufactures parts or components for one or a few larger companies. It is accordingly very dependent and, to retain a strong competitive position vis-à-vis similar firms, it relies above all on cheap labour and flimsy labour protection. This second type of firm mushroomed in Italy during the 1970s as a consequence of the decentralisation of manufacturing. Large companies, confronted at that time with considerable labour conflict and hefty wage increases, turned to decentralisation as a means to save on labour costs and enhance their flexibility. The "industrial district" is a quite different model. Here, the small firm forms part of a network of firms with a highly-specialised division of labour in typical manufacturing sectors and within a specific geographical area. As Giacomo Becattini has stressed, the industrial district, rather than the isolated small firm, is the unit of analysis for this form of economic organisation. The district, therefore, is a sort of functional alternative to the large company. It may well have its own technological and productive dynamism and an ability to maintain high wage and employment levels. Over the last 20 years in Italy, there has been a marked growth of industrial districts, especially in the central and northern regions.

If one bears in mind the considerable range of circumstances within which small firms operate, two consequences emerge. First, it is hard to assess the specific performance of industrial districts. Any aggregate statistical analysis, relying on size thresholds to distinguish between small and large firms in terms of employee numbers, should obviously only be used with great caution. To assert on such a basis that labour costs are lower in small firms (e.g. below the 100 employee mark), or that there is less investment in new technologies, may well be misleading. Data of this type reflect mean values behind which a host of different situations may be lurking. Secondly, there are a number of implications for industrial policy-making. It would clearly be a mistake to apply the same political and trade union policies to widely differing types of small business.

These observations suggest, therefore, a need for caution in assessing the performance and development of districts. What we need is the kind of disaggregate and specific analyses that are not often available. As regards Italy in particular, we

know a great deal about how the districts emerged and how they function, but little about the transformations now occurring. This does not mean, however, that industrial districts do not run into problems. Indeed, there are signs to indicate at times quite considerable problems of adjustment. But one cannot in principle rule out the possibility that institutional interventions will be found to address the new constraints, or that the districts will continue to coexist with other forms of productive organisation in which large companies play a more central role. There do not appear to be any rigid technological constraints on the reproduction of districts. The main problems are organisational. Indeed, the increased flexibility of the new technologies might be expected to enable a broader range of different organisational models to coexist than in the past. We may thus assume that productive organisation will tend to become increasingly polymorphous. The emergence of one model rather than another would therefore depend less on technological constraints than on the overall institutional context and past experiences. Of course, we do not yet know whether, or to what extent, institutional interventions able to tackle the problems now emerging in industrial districts will be pursued. But it seems essential that any such interventions should be properly focused on the specific needs of the kind of small business for which they are designed. A catch-all approach to small business leads to distortions in both interpretation and policy-making.

In the following, I shall refer to Italian industrial districts. Section II provides a brief account of how the districts emerged and the ways in which they function. In Section III, I discuss the main problems that districts are now facing. For reasons that have already been clarified, the analysis of this aspect will of necessity be more tentative. I shall then turn to the analysis of several policy implications relating to the strengthening of industrial districts (Section IV) and to the development of similar forms in underdeveloped settings (Section V).

II. Italian districts

It is well known that in the 1970s, market changes and the costs and rigidities associated with hierarchies created major difficulties almost everywhere for large mass production "Fordist" companies. Over the same period, new technologies able to cut the costs of flexible production were opening up fresh opportunities for small firms to adapt more rapidly to a market that was increasingly differentiated and unstable (especially in production lines influenced by fashion). The crisis affecting large firms was particularly acute in Italy where - for reasons that we cannot examine here - mass production had developed rapidly, but without adequate institutional adjustments in industrial relations and the welfare state.

Paradoxically, however, Italy offered a particularly favourable set of institutional resources that ensured that the new opportunities for small firm development were grasped more rapidly and in a more wholesale manner than in other countries. Such resources were in especially good supply in the central and north-eastern regions - the so-called *terza Italia* ("Third Italy"). It was in these areas that the development of small business took the form mainly of the industrial district (there are about 50 of them).

Some industrial districts have developed in the north-west and in the south, but in the north-west there is a very marked concentration of large firms and metropolitan areas, and in the south there are major outstanding problems relating to underdevelopment. Industrial districts tend to be specialised in traditional sectors - textiles, clothing, footwear, furniture - but there has also been a significant development in modern sectors, especially in mechanical engineering. Thus, for example, Prato has specialised in textiles, Poggibonsi in furniture, Sassuolo in ceramics, Montegranaro in footwear, Modena in machine tools and agricultural machinery, and so on. Industrial districts usually coincide with small urban areas and cover one or a handful of communes: the population of the district does not usually exceed 100,000.

Three institutional factors appear of crucial importance in the growth of industrial districts. All three may be found in their typical - though not their only - forms in the small business areas in the centre and north-east of Italy:

1. The network of small and medium-sized urban centres with strong craft and trading traditions. These centres have acted as the principal pools from which entrepreneurial skills and resources could be drawn.
2. The spread of family-based agricultural smallholdings (sharecropping, peasant farms), helping to create the original flexible supply of an inexpensive workforce whose skills and motivations were well-suited to the development of small business.
3. The presence of local political traditions and institutions linked in with the Catholic movement and the socialist and communist movement. The influence of political life on the development of small business should not be misconstrued. This development was not decisively stimulated through direct political measures, or through the application of economic or industrial policies. Historically, political subcultures, albeit in a variety of different forms, have helped to preserve the specific socio-economic fabric referred to earlier, characterised by its peculiar mix of traditional and modern elements. Furthermore, the said political subcultures have promoted the emancipation of politics from civil society. In contrast with what has happened, for example, in the South, politics has thus become more independent of family and private interests, and more strongly tied to the defence of collective interests. This has helped to institutionalise the market. On the one hand, it has focused the pursuit of personal success on the market rather than on politics or crime. On the other hand, it has promoted good industrial relations and locally-based policies, and hence the generation of "collective goods".

But the influence of the institutional context affects not only the origins of industrial districts; indeed, it extends to the specific ways in which this form of economic organisation operates. We have already drawn attention to one essential economic feature of the districts: the highly-developed division of labour between numerous small firms, only some of which have direct contacts with the market. These small firms take on orders and produce the goods, while making use of a dense network of sub-suppliers specialised in particular stages of the production process. There are markets, therefore, for each stage of production and the small specialist firms are thus stimulated by

competition to innovate. The possibility of working for several different customers reduces the dependence of sub-suppliers on the said customer companies and enables the sub-suppliers to put flexible machinery to full use. It is in this way that "flexible production" (Piore and Sabel) is achieved, permitting districts to excel in the production of goods for which demand fluctuates greatly and whose production may be divided into decentralised stages.

We can now assess the way in which socio-cultural and political factors not only impinge from the outside but also intervene in the concrete functioning of the labour and sub-supply markets. The production of goods in the district obviously demands a high degree of co-operation between many entrepreneurs and between the said entrepreneurs and workers employed in many different production units. How is such co-operation achieved? In sub-supplying, for instance, there is certainly strong competition, but this is offset by mechanisms of co-operation with the result that neither the customer nor sub-supplier have much leverage when they find themselves in a favourable market position. That is to say, they do not maximise short-term profitability. This brings mutual advantages in the medium and long term, for example in terms of delivery times or - even more important - as regards innovation processes involving risks to both sides. These forms of co-operation, which supplement mechanisms of competition, are founded on a network of trust that is sustained by the cultural and community-based features outlined above.

As regards the labour market, too, various forms of co-operation come into play that limit short-term market rationality, especially as it affects sections of the workforce with more specific skills. Yet it can be shown that alongside these mechanisms, linked to the cultural and community fabric, a specific form of political regulation of the labour market has gradually developed, and with it a very particular model of industrial relations. This has occurred especially where the above-mentioned institutional context conditions have been particularly in evidence. The existence of a local institutional context, with deep-rooted political and associative traditions, has promoted unionisation, and thereby generated resources of identity and organisation. Over time, these resources were deployed to launch a model of industrial relations quite different from that prevalent in large companies, which has attracted and continues to attract, more attention.

In industrial districts, there has developed, side by side with economic growth, a co-operative and locally-based model. The trade unions do not place constraints on the flexible use of labour - either within or between firms - although they do bargain over related wage levels, and, more recently, over the forms taken by such flexibility. In exchange for their co-operation, they obtain often substantial increases in locally negotiated wages, applying even to the smallest firms; full employment at a local level; the delivery of social services by local governments, usually more efficient than those provided in large cities and in the south. In the bargaining process, local considerations are generally more important than company-specific ones, but in some areas union presence may be significant at company level, too. This accounts for the fact that union membership levels are higher in the small business areas in the centre and north of Italy than in large companies. It also explains the growth in real wages, which in many areas

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are higher, or at least no lower, than those in large firms - even if in general working time is longer. Of course, as I have already pointed out, this trend cannot be observed merely by referring to aggregate statistical data that lump the various different kinds of small business together.

In conclusion, for a considerable proportion of small firms - those that display the greatest dynamism - it is not, as is often maintained, the lack of constraints placed on the market that has promoted development. Rather, it is the presence of constraints and socio-cultural and political rigidities that has sustained flexibility. Or, as R. Dore would say, it is the presence of "flexible rigidities". Where the institutional conditions that we have mentioned are most in evidence, there has been most success in grasping new opportunities for the development of more autonomous and dynamic small firms systems as well as for the modernisation of more backward forms (traditional decentralisation). This is not to say that all small firms have gone down this road, but many have been able to do so, especially in areas where there has been a favourable institutional context. This helps to explain not only the particular spread in Italy of small firms integrated according to a district-centred logic, but also the difficulties that this form of economic organisation has encountered, for example in the south, for fundamentally non-economic reasons. This has a number of obvious implications for any attempt to promote industrial districts in backward areas, a point to which I shall return later.

III. New challenges and the need for adjustment

After the success enjoyed by industrial districts in the 1970s and early 1980s, there followed a more uncertain phase. At a time when large Italian companies were leading a spectacular process of productive restructuring, many districts were running into trouble. Despite the lack of research into ongoing processes, I shall attempt to focus on the problems posed by modernisation, and the constraints encountered by more sophisticated forms of technological-productive and organisational integration. Viewed from this angle, a number of general problems can be pinpointed that assume different manifestations according to the concrete features of the single district. These problems are in part a consequence of the process of development itself, as it relates for example to environmental or infrastructural concerns or to socio-cultural changes. But they are also linked to the basic organisational characteristics of the productive structure and to the resulting constraints on a process of innovation capable of meeting the challenges of the market.

As regards this last point, I should like to focus attention on an aspect of particular importance for the discussion. It can be argued that current trends make forms of organisational regulation increasingly important for the consolidation of development. That is to say that the action of interest groups and local governments and, in particular, that of regional governments, can play an important role. I shall attempt to clarify this aspect below.

During the 1980s, a number of the exogenous variables that previously operated in the interests of small firms in Italy underwent change. Macro-economic policies pursued

at national level were modified, with important repercussions on exchange rates and credit. In particular, Italy's entry into the European Monetary System (EMS) put an end to the policy of gradual lira devaluation that had propped up Italian exports throughout the 1970s. International competition grew tougher and there was no slackening of uncertainty and instability. The devaluation of the dollar had a very negative effect on exports. However, just as it would be blinkered to ascribe the dynamism of small business in the 1970s exclusively to favourable exogenous variables, it would be equally short-sighted to interpret the present situation as a mere reflection of exogenous alterations. A close look must be taken at the organisational features of the productive structure and at its ability to respond to external constraints. Local and regional public operators and business and trades union organisations are in any case obliged to take this approach in order to frame their strategy.

From this vantage point, I would like to raise the following point: productive flexibility - the small firm's prime resource - now appears less able on its own to guarantee positive results. This can be better appreciated if one bears in mind two facts: (a) the marked increase in labour costs, and increasing competition from low-wage countries in the production of poor quality goods; (b) the increased competitiveness resulting from new technology, which tends to bring down the costs of flexibility for large firms, too.

In the conditions now emerging, the stages of new product planning and design and of marketing and market relations are assuming greater importance. Productive flexibility itself entails a continual emphasis on innovation. The spread of mechanical expertise in small business areas has paved the way for important innovations in the productive process. The incremental "bottom-up" nature of this type of innovation has been clearly demonstrated - and its contribution to the continual upgrading of the potential and flexibility of machinery should not be underestimated. However, looking ahead, greater attention should be paid to new electronic technologies. But this is constrained by prevailing mechanical orientations, as well as by the expense that new technology often involves. Similar points may be made as regards marketing and market relations. These aspects are assuming increasing importance as a competitive resource, and large firms are now directing considerable efforts in this direction. Small businesses, however, tend to be oriented more towards the product than towards the market. Moreover, innovation in marketing is costly and difficult for small isolated firms to undertake.

Innovations are therefore required in technology, organisation, business and management training, and labour skills. Productive units, given their limited size, are not able effectively to internalise such resources and services which are besides often scarce in the districts where the firms are located. Problems in adapting productive structure can therefore be summed up in terms of an overall need for greater organisation. It has to be seen to what extent forms of co-operation between firms can be developed with a view to innovation: regulation mechanisms that operate between market and hierarchies.

Indeed, in the new circumstances, the former combination of the market and of relations of trust limits the possibility of innovation by hindering the concentration of resources and the allocation of related risks. But traditional vertical integration can no longer be advocated, given the growing quantitative and qualitative variability in demand, and the need for organisational flexibility that this entails. It is no accident that large companies have themselves moved away from forms of rigid vertical integration, opening the door to collaboration with small, specialised firms, integrated in a more or less stable way within their organisational framework. If, therefore, as Sabel, for example, has observed, the efficient operation of the network to which they belong is becoming increasingly important for both large and small firms, there remains one fundamental difference that I should like to emphasise.

Large companies have at their disposal a unitary command system and a set of financial and organisational resources that allow them greater decision-making speed and autonomy when it comes to constructing their networks and shaping the architecture of their systems around a strategy that prioritises flexibility and quality. However, under the new conditions of competition, it is more difficult for small firm networks, i.e. districts, to grasp and consolidate the opportunities opened up by the strategy of flexibility. Indeed, the adaptation of their organisational design presupposes greater co-operation in the creation of "collective goods". Although it may not appear to be in each individual actor's immediate interest to contribute to the development of "collective goods", their creation is essential for the future welfare of each and every actor within the district. This is also why it is vitally important that the local institutional context should be able to promote the creation of "collective goods" by fostering innovation and co-operation, professional training, environmental and infrastructural resource control, and conflict management. Of course, some steps in this direction have already been taken. In small business areas, a variety of new types of organisation are already springing up: consortia, business services centres, co-operatives, groups of companies, etc. In many areas, however, these trends seem unable to address the problems of adjustment.

IV. Policy problems

There is broad agreement about the need for more effective forms of organisation located between the market and the hierarchy. There does not, however, appear to be any corresponding consensus regarding two important consequences that I believe flow from this outlook. I shall therefore present them as hypotheses for discussion.

The first point is that innovation in small business now raises a problem of territorial scale. It underscores the relation with larger towns and cities as centres of services, and throws into relief the city as a place at which strategic functions are concentrated (research, finance - an aspect that has so far been neglected -, marketing, promotion, etc.).

The second hypothesis is that, given the constraints of scale that at present limit experimentation with broader organisational synergies, a regulatory dimension at

regional level might be more relevant for future development, covering both the regional government as an institution and also interest groups. The promotion of forms of co-operation and organisation among small firms, the easing of much-needed access to credit, the building of relations between industrial districts and those large centres better disposed towards innovation, would all be fostered by an "intermediate government" of development. This point needs to be clarified with reference both to policies and to actors.

As regards policies, the provision of strategic services for small firms and the difficulties encountered by districts in this area are of obvious importance. This does not mean, however, that all resources should be channelled into metropolitan areas. What is needed is a diversified analysis and imaginative initiatives on a variety of scales. It is often emphasised that innovation cannot easily be brought into small and medium-size business systems in a "top-down" way. Innovation must grow up from the bottom, involving the potential users and stimulating a demand that may otherwise not be there, and organising its encounter with supply. This makes it necessary for certain services to be decentralised and for them to be developed in close symbiosis with production. Other services - whose impact is less immediate if no less important - require an urban environment, synergies with available cultural and scientific institutions, and links to dimensions broader than the region. An example is provided by scientific parks, or forms of institutionalised collaboration between companies, universities and top-flight research centres.

In this perspective, policies should reveal a basic requirement: they should be organised through an "intermediate" government, a regional dimension able not, of course, to manage directly but to stimulate and co-ordinate both the differentiation and the integration of a range of public and private initiatives and actors, even if located in different areas. It is not a question of suppressing the forms of locally-based regulations that have been vital for the development of small business, but rather to integrate local elements in a regional dimension in order to help them overcome the worsening bottlenecks that are currently bedevilling them.

As for the actors, it is worth emphasising that this kind of outlook does not entail any straightforward reduction in the role of local actors - trade unions, business organisations, local governments - in favour of regional level bodies. It is a matter of developing a more efficient division of labour between the various levels. This, however, does demand a strengthening of regional government.

Perhaps this point can be clarified by an example. The problems of restructuring local systems and of bringing in new technology involve important processes of training and reskilling, of flexibility and labour mobility. There is reason to think that a greater involvement of trade unions at company level as well as locally in the handling of problems relating to job training, flexibility and mobility, might help to speed up and smooth processes of adjustment. A strengthening, therefore, of the regulatory role of local actors - trade unions, business organisations, councils - could represent a resource for the districts. However, this cannot be taken on trust given that resistance from individual firms and often from individual employees has to be overcome. At the same

time, unless there is a means of directing and selecting forms of intervention at a level broader than the individual district, the creation of a "collective good" such as job training would be compromised. To be effective, job training requires, at the highest levels, a focusing of effort and an integration of technical and scientific infrastructures. Indeed, from a utilitarian standpoint, it may be rational for individual companies and for actors in individual districts not to contribute to the creation of this "collective good", the advantages of which nonetheless accrue to the entire regional economy. But the inadequate supply of a "collective good" such as job training in the end undermines the ability of individual districts to make the necessary adjustments. To avoid this and similar traps besetting the creation of "collective goods", the ability to pool interests needs to be strengthened at a regional level and particular attention needs to be paid to furthering co-operation between interest groups and regional development.

This need is also clearly highlighted by other aspects concerning, for example, land use and local planning, energy supplies, environmental protection, refuse disposal, traffic, and the need to overhaul transport and communications networks. These are areas in which the limits of locally-based regulation can be readily appreciated. Obviously, the diffusive character of the small business economy consumes an increasing amount of local environmental resources, while creating externalities that go far beyond the individual areas concerned. It is the public as a whole that has to foot the bill, but in the final analysis the costs have to be met by the companies, too.

In conclusion, the point to stress is that in small business areas in the past a relation between politics and the economy was generally created at a local level. It was mainly based on redistribution. A kind of division of labour between business, unions and local government developed. Business was free to respond flexibly to market opportunities. Union and local government bodies concentrated their energies on compensation for labour flexibility. The unions did so by focusing bargaining initiatives on economic aspects and wages, even if there were episodes of more specific negotiation on flexibility. Local government has above all pursued social policies and sought to make a number of fundamental infrastructural interventions. The regional governments joined this mechanism in the 1970s basically to provide backing for the redistributive action of the local authorities, and the local regulative framework.

This model now seems to have become weaker and less able to sustain development. Ongoing changes have made it necessary to redefine the relation between politics and the economy, shifting the emphasis away from redistribution and towards the active stimulation of economic and social conditions conducive to development. One essential implication of the foregoing remarks is that the various kinds of policies designed to support industrial districts must be primarily of the "supply policy" variety, tailored to strengthen the systemic capacities and horizontal integration of industrial districts. Such policies, however, if they are to operate efficiently must: (a) be context-sensitive, with a high degree of flexibility and differentiation over time and space; (b) possess a concentration of resources resulting from the inter-sectorial co-ordination of interventions; (c) avoid assuming traditional bureaucratic forms, and involve instead intense collaboration with the various interests in play, not only throughout the intervention formulation stage, but also during their application.

From this it follows that interventions of this type presuppose the existence of strong institutional interlocutors at the decentralised level: a regional dimension in development management. This, in its turn, seems to demand the integration of localism into a regional perspective and thus the reinforcement of the ability politically to redefine the interests at this level and the co-operation between interest groups and regional government. Naturally, an answer of this type will not necessarily emerge. But the ability of interest groups and of local and regional governments to assume a new regulatory role will influence the development of small business in Italy more than has been the case in the past.

V. Districts and regional development

Are there any lessons to be learnt from the experiences of industrial districts that would be of relevance to the development of backward areas? This question usually elicits two contrasting responses. The first and more pessimistic response tends to view the success of districts as a contingent fact, stressing the specificity of the institutional context that encouraged the growth of districts in a number of regions. Accordingly, districts are not deemed a valid alternative for the development of backward areas. The second response, however, is more optimistic. The success of districts is considered to be more long-lasting. While recognising the influence of specific institutional factors in the origins of small firm development, this view argues that appropriate political interventions could provide substitutes for such factors.

In my opinion, Italian experience should counsel caution in this respect also. Districts cannot be regarded as *the* strategy for endogenous development. But nor should it be ruled out that, *under certain circumstances*, such a strategy might prove effective. I shall attempt to show that the difficulties derive from the fact that it is not simply a matter of devising efficient economic policies: what is needed is a whole package of interventions designed to "create" the appropriate actors for such policies.

Above all, it should be recalled that Italian experience confirms the importance of non-economic factors in the growth of districts. It is no accident that, as we have seen, districts are concentrated in regions where the institutional context encourages co-operation and horizontal integration between firms. In southern Italy - especially on the Adriatic side - there are many small firms, but hardly any full-fledged districts. Mostly, one encounters small, isolated, traditional firms or dependent sub-suppliers working for northern firms. For situations of this type - which are probably widespread in other backward areas, especially in the Mediterranean countries - is it possible to conceive of a development strategy that takes its inspiration from industrial districts?

As regards policies for southern Italy, the first observation to make is that it is pointless - indeed it can often be counterproductive - to rely on financial incentives targeted on single firms. This form of intervention exerts an attraction above all on large firms from outside the area. These large firms thus obtain extra resources to finance costly restructuring processes. But, in general, they are concentrated in sectors of

production that are not characterised by high labour intensity and that do not stimulate the growth of local small and medium-sized firms. As for the said small local firms, the existence of incentives tends to encourage initiatives of doubtful efficiency, based more on political protection than on hard-headed business calculation. Past experience of incentives to small firms is not therefore positive, and the orientation adopted by the EC to limit recourse to this instrument is well-motivated.

Having dispensed with direct and individual incentives, one might wish to focus attention on interventions designed to encourage the kind of horizontal integration between small companies that in the case of industrial districts occurs spontaneously, owing to the historical features of the institutional context. Of course, a strategy of this type presupposes the existence of small, traditional firms or of dependent sub-suppliers. In such cases, it would be a matter of making use of those "supply policies" that we have mentioned in relation to districts' problems of consolidation. These "supply policies" ought to encourage the creation of "collective goods" in terms of economies external to the individual companies: the spread of technological knowhow, trade promotion, business skills training, worker training, and so on. But while these resources may facilitate the adjustment process undertaken by already existing districts, it is doubtful that they would suffice for backward areas. For in backward areas one of the main constraints on growth is mutual distrust between operators, which does nothing to promote productive specialisation or economies of agglomeration. The spread of services external to the firms, in the field of technology, in marketing and in training, may help to build a climate of greater collaboration, but is probably not sufficient on its own. One might therefore think in terms of more complex interventions, for example of projects designed to encourage co-operation between local firms, while orienting them towards production lines of greater quality. To this end, specific and temporary services might be supplied, backed by public funding, but no direct incentives. It might also be useful to involve in these projects medium-sized and large firms from outside the area, in order to learn from their experience.

But who ought to manage such complex policies? As we have seen, in order to be effective, supply policies have to be flexible, inter-sectorial, non-bureaucratic, and managed in collaboration with those whose interests are at stake. Hence the need to enhance the role of local and regional government. But this raises a problem that Italian experience has clearly highlighted. Generally speaking, in backward areas, local and regional authorities are weaker than elsewhere and less able to carry out effective economic policies.

In the case of Italy, we have seen the importance for the growth of districts of a solid local institutional context, a well-organised and autonomous civil society, and efficient local government. And these precisely are the weak points in southern areas. The pervasiveness of a kind of politics that functions as a regulator of social relations makes civil society dependent and disorganised. Both business and trade union associations are weak. Political relations of the client-patron type, between single individuals or between groups and members of the local political class, prevail. This renders local government institutions inefficient because there are no representative structures able to hold particular interests in check. The results are: the subservience

of the bureaucracy, distributive policies that make it possible to share the spoils widely, and non-decisions on everything that is less easy to divide up.

Given this framework, it might be dangerous to rely too heavily on local government institutions. On the other hand, effective supply policies cannot be implemented from the centre. What, then, should be done? A convincing and consistent answer to this query still has to be tried out. All that we can do here is to suggest a number of directions in which it might be worth developing further discussion.

Looked at from this angle, it seems to me important to examine ways not only of strengthening local government institutions but also - at the same time - of enhancing the autonomy and organisation of civil society. It is not enough merely to provide local and regional governments with the skills and resources needed for local supply policies, nor is it enough to train the local bureaucracy, though in several countries, including Italy, even these aims are hard to reach. It is necessary also to stimulate the creation of strong interlocuters within civil society. Organisations representing different interests need to be reinforced by institutional means and their role in the design and implementation of new policies should be enhanced. Such organisations could, in fact, supply the information and the necessary consensus for effective policies and could help to limit pressures from the local political class in favour of inefficient distributive policies. The political construction of the interlocuters is an essential part of development strategy because these organisations might eventually "internalise" the advantages deriving from the production of "collective goods" and might, as a result, develop a longer-term view of individual interests, inducing them to co-operate more effectively.

The attempt to apply lessons from the experience of industrial districts to economically backward areas is thus fraught with considerable difficulties. It is not merely a matter of finding and implementing the right economic policies. More complex interventions need to be devised to reinforce the autonomy of civil society vis-à-vis the local political system. Unless a more autonomous and better-organised civil society is created, and unless a more autonomous and better technically trained bureaucracy emerges, any new policy is liable to prove inefficient and to stimulate the growth of political entrepreneurship rather than economic development. It is not an easy job. But none of the alternatives so far tried are any more appealing.

**International Conference
on
Industrial Districts and
Local Economic Regeneration**

(Geneva, 18 & 19 October 1990)

Paper No. 14

**The role of local institutions in the
development of industrial districts:
the Canadian experience**

by

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**Organised by the
New Industrial Organisation Programme
International Institute for Labour Studies
with the support of the
Commission of the European Communities**

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I. Introduction

In the industrialised countries, most industrial districts¹ have developed to such an extent over the last few years that it now seems reasonable to think that the age-old traditional movement towards company concentration may at last reach them, or that certain districts may vanish as happened at the end of the nineteenth and at the beginning of the twentieth centuries. But this change may also signal new forms of inter-firm co-operation enabling districts to maintain their principal features while ensuring their ongoing development.

At the very least, this change presupposes the pursuit of new strategies by industrial districts to improve their efficiency and above all their flexibility as regards not only products and production processes but also distribution or exportation. These strategies relate to the very dynamics of the small firms system, but also to the development of the surrounding socio-economic network and the emergence of new forms of intervention adopted by the territorial government.

In this paper, we shall first provide a rapid survey of some of the problems that industrial districts are currently facing. Then we shall show that any measures designed to promote their survival and development will have to entail a tighter control on economic information both internal and external to the district. But more often than not this control can only be achieved if special aid is granted by the territorial State, with the support of the central State. We shall conclude our analysis with a look at three examples of industrial districts in Quebec.

II. Changes to industrial districts

The principal dangers presently threatening industrial districts derive from the rapid transformation of their working environment faced with increasing international openness. On the one hand, this opening-out entails the increasing segmentation and transformation of markets and hence more vigorous international competition. This competition is accentuated by the volatility of products demanding systematic innovation. But it is also stoked by fluctuations in exchange rates in customer or competitor countries, by the formation of new economic blocks, and by the development of visible or invisible barriers. On the other hand, this process of opening-out leads to an increased reliance on services, many of which can only be provided in the major towns and cities. This heightened demand for services is due to the greater role they now play in the products manufactured and in the production processes themselves.

This international opening-out is also marked by the arrival of newly industrialised countries, and also by advantages (in absolute if not in relative terms) deriving from the spread of new production technologies that make use of information technology or that permit new forms of organisation and flexible production. Thus some countries are now securing an almost unchallengeable lead thanks to their ever greater reliance on these new technologies [Thurow, 1987]. Moreover, this is occurring despite the efforts of several districts to bring in new technology. Put simply, we are witnessing a new confrontation between local economies and international markets.

¹ Or localised systems of enterprises, local productive systems, diffuse industrialisation systems, territorial economies, specialised production areas, etc. On these different concepts, see Emanuel [1990].

But this opening-out is also effected through the various national communications media, thereby rapidly transforming the social workers and the women who are employed in large numbers in certain industrial districts [Capecchi, 1987]. This transformation receives an added impetus from improvements in educational standards. In other words, post-industrial values are beginning to reach into all environments, and are seriously undermining the traditional work ethic. Especially in the case of young people who no longer accept the shared economic project, this process threatens the kind of discipline that not only accounted for much of the competitive strength of the districts, but also underpinned the formation and gradual renewal of an entrepreneurial class [Triglia, 1986]. In some cases, the social system that often constituted the very foundation for the cohesion of industrial districts may be breaking up [Tinacci Mossello and Dini, 1990].

Lastly, to these changes must be added the "new technological revolution" which, unlike previous industrial revolutions, makes available a range of equipment that is much better suited to the needs of small firms or to flexible or small-batch production. Some research has even shown that, for example, numeric control machine tools (NCMT) enhance the development of SMEs more than that of large-scale business [Acs and Audrestch, 1988]. Other work has demonstrated that the take-up of information technology by SMEs was gaining speed and that in certain sectors it was occurring even more rapidly than in large-scale business [Julien, 1990; Lefevbre and Lefevbre, 1990]. But, however necessary this revolution may be, it nonetheless transforms the working environment, opens up rifts between companies and tends to instal a new hierarchy. Lastly, it quickens the pace at which values are transformed.

III. Information control

At a time when industrial districts are facing such profound change in their environment, the problem of information control arises: information needed for the discovery or creation of new gaps opened up by market segmentation and by the development of the international market; information making it possible to understand and respond to the new aspirations of the workers; information and training to prepare the next generation of entrepreneurs; information to pinpoint which of the available new technologies can assist a particular firm in becoming more competitive; information on new services. Information is essential, in short, as a basis for greater flexibility, creativity, and innovation.

Vaggagini [1989] holds the view that industrial districts constitute areas of communication and that the sharing of economic, social-cultural and political information accounts for their cohesion over time. They form special environments in which "communicational acting", as Habermas [1987] explains, ensures cultural reproduction and social integration within the family and hence within the community, at work and in the business world and thus in industrial development too.

As regards the economic dimension, industrial districts may be viewed as systems with "limited control over internal and external information",² in order to minimise transaction costs. These control systems can be explained by the greater gains that each individual entrepreneur derives from the sharing-out (between the firms in the district)

² Or "systems of relative complicity", as we have called them [Julien, 1990a].

of a broader pool of information as compared with the benefits to be enjoyed from keeping for one's own firm a more limited amount of information. These gains are not economic alone, but also social. In the districts themselves, this sharing-out or exchange of information has gradually become institutionalised and indeed accounts for their strong economic and social structuring. But as Vaggagini [1990] has observed, there appears to be a widening gulf between the district structures and "modernity", or between a more traditional community-based environment and an increasingly international and multicultural economy.

This constantly increasing openness in economic terms (markets), in technological terms (new processes, new products), or in sociological terms (affecting the value systems of workers and entrepreneurs) creates fresh challenges for information control. To survive and expand, industrial districts must on the one hand develop new national and international antennae while on the other hand developing new skills in the filtering, evaluation and use of information reaching them from this environment. In other words, the response of districts to the turbulence of their environment has to involve a heightened awareness of the development of national and international markets, a well-tailored adaptation of production organisations to the new aspirations of workers, and an increased sensitivity to technological transformations (as well as efficiency in introducing them), and a constant capacity for innovation. It is a question of technological and commercial "monitoring". But at the same time, to preserve their cohesion, districts must adapt this new information to their socio-cultural and political needs.

But this environmental monitoring - although also performed by small firms [Smeltzer et al., 1988; Zank, 1990] - is harder to systematise in very decentralised organisations. In industrial districts, monitoring needs to be organised and controlled at business community level. This requires a different kind of organisation and much more complex new forms of co-operation: it also entails institutional intervention.

Viewed systemically, as Maria Tinacci Mossello and Francesco Dini [1990] have observed, every system, in order to survive, during the course of its own evolution must minimise its complexity by continually checking its informational relations with its environment. At the same time, it has to ensure that these relations are sufficiently complex to pick up all information essential to it. This is why the development of a good structure of technological and commercial monitoring is the main challenge facing industrial districts as a consequence of increasing openness to the international economy. In Italy, for example, it now appears that an increasing proportion of information between districts and the outside world is channelled through service companies located in the Milan metropolitan area [Capecchi, 1988]. These firms view their intervention in industrial districts as one operation among others and act principally in their own interests [Tinacci Mossello and Dini, 1990]. As a result, control over information is slipping away from the district. To regain it, a co-ordination of all the resources of the region in question is vital; and in most cases this co-ordination also has to secure backing from the territorial State.

IV. The role of territorial states: Long-term management of information and training

Given this growing complexity (the "hypercomplexity" of our socio-economic systems in Edgar Morin's view), one must highlight two main types of information essential to the smooth operation and development of the industrial district. The first type is short-term and conjunctural, and relates to markets and competition. The second type of information is structural and long-term and derives from research and development into products and technology and from changes in the system of values.

The first information group belongs to the capitalist domain and is in the possession of private firms or professional organisations within the district. Principally, it relies on the district's leading firms (those closest to the market or those who stand out as leaders in the last stages of the production process). It also relies on inter-firm co-ordination to promote, for example, gradual innovation through the process of "diffused innovation" [Bellandi, 1989]. The second information group derives above all from a kind of organisation that is oriented towards long-term change or is more collective or public in nature. This organisation cannot easily be founded on small-scale enterprises with short-term outlooks and resources that are too limited to support forecasts of prospects and radical technology transfer. Moreover, it is less characteristic of the private sector.

This is all the more true since short-term information is a factor in competition and co-operation. If such information is not compensated for by reciprocal exchange, it becomes the fundamental element of differentiation.³ In these circumstances, State intervention is either ineffective or liable to meet with rejection in the name of small firm independence, this independence being one of the main goals of small entrepreneurs [Brockhaus, 1986].⁴ By contrast, long-term information, since it does not yet belong to anyone, is more neutral. Its production by a third party is easier to accept, and it is accordingly easier to share out.

This information must also cover new forms of accelerated training both for managerial or business personnel and for the skilled workforce. Here again one cannot expect SMEs or even districts to undertake reskilling or to develop on their own a more thoroughly self-trained fresh generation of entrepreneurs.

As regards the longer term, information can only be uncertain and subject to change and hence extremely complex. In information theory, the larger the set of signals and the more open the system of information, the higher climb the costs [Theil, 1969]: too high, in any case, for small firms or their professional organisations. Such information has to be a matter for the State. Yet it cannot be "efficient" unless it is

³ Baptiste and Michelsons [1988] have thus demonstrated that, in the case of the Haite-Valdesa district, information exchange is generalised except as regards innovation: this is where competition comes in.

⁴ See the instance of the SPRINT project's "telematic programme" which was unable to operate because it finished by touching on all the information generated by the enterprises or craftspeople [Tinacci-Mossello and Dini, 1990]. Other investigations have shown that SMEs tend to reject state intervention, especially in matters directly affecting competition [see Chicha, 1982].

oriented towards an "individualised" decision for each particular case [Chicha, 1982].⁵ This long-term information has therefore to be developed in close co-operation with its users, while remaining sufficiently broad to satisfy more general requirements.

In the case of the industrial district (and this often applies to SMEs in general),⁶ the State is represented above all by the territorial State, geographically closer, able to operate in close co-operation with the district or small firm and, most important, able to integrate the specific social and economic dimensions of each district, while respecting the wider environment, context, etc.

It is obviously not possible for this territorial State, by switching from a strategy of national and regional development to one of socio-economic development (within the framework of the international division of labour) to establish on its own all the institutions able to fulfil the requirements. Yet it has to co-ordinate all existing institutions and ensure that they develop in such a way as to meet the needs of the enterprises and hence those also of the industrial district. It has also to secure the backing of the central State in order to provide those necessary but previously non-existent services.

As for Research and Development and technological transfer, the territorial State has a number of means at its disposal. On the one hand, it can work with research and innovation bodies at regional level, for example with regional universities and colleges, and with company consultants,⁷ in order to transfer information. If need be, it can develop special "antennae", with the help for instance of agents at national and international level, in order to pick up, filter and adapt information. Equally, the territorial State can seek to develop interface mechanisms to transmit information to companies according to their needs and respective resources. It can support special assignments or similar initiatives designed by central government for business managers at international fairs, or executive courses at foreign research centres. In short, it must harmonise territorial organisation with extra-territorial and international networks.

This problem of information is crucial, for example, to the spread and establishment of new technologies [Guesnier, 1984; Dosi, 1988]: access to information and its control constitute the prime factor (internal to the enterprises themselves) that distinguish between those SMEs that make use of new production technologies and those on the other hand, that use traditional technologies. This information variable is much more important, for example, than financial constraint. The second factor is the level and type of management training [Julien et al., 1988].

The need for training increases with the growing complexity of production. As a result, the traditional "on-the-job" method of training entrepreneurs, with the gradual transmission of know-how accumulated within the district, is less and less efficient. This is because part of this know-how has regularly to be overhauled if not invented.

⁵ In a piece of research that we carried out into the development of effective software for management and production, for example, in hospitals, we found that the best information systems were the ones that the users had themselves developed [Jacob, Julien and Lorrain, 1989].

⁶ Just as the central State is the traditional counterpart of big business, so the territorial State is the small firm's normal counterpart.

⁷ On the role of company consultants, see the interesting analysis provided by E. Chell, J. Havorth and L. Litrop [1989] relating to the clothing industry in England.

Confronted with the new demands of the economic environment, there is a need for executives who are better able to understand and process complex information. As regards workforce training, reskilling is increasingly necessary, at least for technicians and key personnel. The territorial State must therefore come to terms with the educational resources of the region (which must themselves be renewed through contact with broader sources, in order to meet the needs of the district, even if this means developing ad hoc executive and staff retraining programmes.

Thirdly, the region has to obtain or promote consultancy and expertise in its area. The critical mass created by the existence of a great number of enterprises operating in the same sector should ease the creation of this expertise in the speciality in question; but when it comes to other types of consultation, it may be necessary to turn to entrepreneurs or enterprises from outside the region. In such cases, outside firms have to be prompted to develop a particular speciality for the greater benefit of the region. If need be, the creation of service firms should be promoted. Such firms should deal, for example, with the development of design skills, research and consultation offices, technology transfer centres, international marketing companies, export groups, etc.

Local government can play yet other roles, helping new firms to get started, making available risk capital, or providing technical advice for companies in trouble. But even if these functions may be necessary at the outset and during moments of crisis, they cannot replace longer-term functions.

In short, the manufacturing development of the district is increasingly tied to the development of services. And the development of this tertiary sector has to be stimulated by local government for the greater benefit of the region. Local government has thus to play the role of "catalyst" or "synergy facilitator" leading actors better to co-ordinate their actions with the help of or thanks to the provision of extra information. What is thus achieved is a "network" of resources of all kinds, relating to manufacturing as well as to services, supported by and supportive of the dynamism of the manufacturing SMEs, and backed by local government. It is essential that this network should function as the new linchpin for the economic and social cohesion of the district or territorial economy [Planque, 1983; Aydalot, 1986; Lund and Rasmussen, 1988]. It must make it possible systematically to enrich the endogenous forces of a controlled supply of exogenous information.

V. Some applications

We have attempted to apply this conceptual framework to three Quebecois districts: the first in the up-market area of pleasure boat production in the Grand'Mère and Shawnigan regions; the second in an industry that dates back to the beginnings of New France, the fur production district in Montreal; and the third in a more traditional sector, the furniture industry in the Victoriaville region.

V.1. The pleasure boat district of Centre-Mauricie

The first of these two districts developed out of canoe and small crafts production at the turn of the century, to meet the needs of the paper industry for wood felling and floating to the north of Trois-Rivières. Gradually there developed a demand for boats from fishers and hunters. But it was not until the 1960s that a number of firms in the area turned to producing motorised pleasure craft capable of sailing close to the sea

coasts. Two of these firms expanded rapidly, drawing the others along in their wake. It is worth mentioning that this development occurred at a time when the region's main large-scale enterprises were declining.⁸

Overall, Quebec's pleasure craft industry has developed very rapidly. Between 1977 and 1985, the annual level of deliveries rose at a rate of 18.5 per cent in Quebec as compared to 13.8 per cent for Canada as a whole. The Centre-Mauricie district accounts for 55 per cent of production in Quebec. At present the district is home to the two leading companies (with between 250 and 350 production workers) and 29 other small firms (with fewer than 50 employees), many of which are sub-contractors (divided into two levels: see Appendix 1). Roughly a third of these small firms are managed by former employees of the larger companies. Much smaller than the large districts (e.g. the Montreal fur district or the Italian districts, comprising several hundred small firms), Centre-Mauricie obviously matches the scale of Quebec's small regional economy. It does not, however, appear to have completed its growth cycle.

The district is therefore not in a position to produce and supply all the items demanded of it. However, an effort is being made to boost the rate of self-sufficiency (currently at 72 per cent). Indeed, the leading firms have recently created a purchasing group in an effort to concentrate their buying and to enhance their production within the district.

The district is supported by an industrial association (the Industrial Development Corporation of Centre Mauricie or CODICEM)⁹ which co-ordinates development initiatives. One of the aims of the Corporation is to help renew the industrial base of the region through the creation of small sub-contracting firms. Above all, this assistance involves what is known as an "incubator", offering a whole range of services to small firms during their early years.¹⁰

The Corporation promotes information exchange¹¹ via a "regional board of consultation", set up following the region's "socio-economic summit" held in 1987. It also co-ordinates the quest for risk financing, support for companies wishing to take part in industrial fairs or seek export openings, with the backing of programmes made available by the higher-level governments. Lastly, the Corporation works with the college of the region and with technical schools to promote the training of workers (in

⁸ The Centre-Mauricie region includes two small towns (Shawinigan and Grand-Mère) and about ten villages. In the 1950s and 1960s, the region was considered one of the richest in Canada. But the systematic closure of the large chemical firms and the slump affecting the paper and aluminium industries and companies in the 1970s even led to a drop in population.

⁹ This Corporation intervenes not only in the district but also throughout the entire Centre-Mauricie region. In collaboration with the Quebecois Enterprises Group, it sponsors a number of different economic bodies, such as the Risk Capital Financing Company (SOFICAR), Support for Youth Initiatives (SIJCEM), the Enterprise Creation Centre (CGEGEM), and an SME "club" (where industrialists can discuss their strengths and weaknesses).

¹⁰ At present, the "incubator" is providing start-up assistance to seven subcontracting firms in the pleasure boat sector.

¹¹ A few years ago, for example, the Corporation created a data file on market opportunities in the region in order to inform industrialists about openings for subcontracting work. Later, however, the updating of the completed file was suspended.

particular through the foundation of the Centre-Mauricie Nautical Training Centre)¹² and technical advice.

Yet the district still has a number of problems. The pleasure boat industry is in relative crisis in North America. First and foremost this crisis is due to a slowing-down in increases in income. Added to this is the Free Trade agreement between Canada and the United States which has caused Canadian customs duties to drop 15 per cent in January 1987, as against 1.2 per cent in the US. The US Merchant Marine Act, which bars the entry of any boats not used "for personal purposes", acts as a further break on Canadian exports.

Already this year two major Quebecois companies (neither of them located within the district) have had to close, in the wake of 12 others throughout Canada over the last five years. Even the top Canadian manufacturer of sailing boats had to seek new partners in 1987 in order to avoid bankruptcy. It also seems that several large American firms are facing difficulties [MEIR, 1988]. The only possible solutions will have to entail an increase in productivity over the entire chain of companies, as well as a broadening-out of the market.

The computerisation of firms within this district has not yet made much headway. It is, however, true that production is pitched up-market. But reliance on design alone is not enough. Owing, for example, to the distance from the New England market, transport costs are high. An attempt has to be made to adapt or indeed to create new processes based on information technology.¹³ Likewise, it is essential to adapt to the arrival of new materials and to seek new markets in Europe and Japan to offset fluctuations in the north American market. Lastly, training must be improved. To achieve all of this, long-term analyses are required. It takes time to train a skilled workforce, to elaborate managerial and marketing techniques, and especially to develop markets and forms of technology transfer. Yet short-term needs still seem to monopolise the energies of local institutions. In particular, there is a need to forge and develop links with the research and training facilities provided by the regional university.

V.2 The Montreal fur district

The second example is that of the Montreal fur-producing district, which has emerged out of the fur trade that in the eighteenth and nineteenth centuries was carried on with American Indians. Montreal was at that time a major centre for this trade. At the beginning of the twentieth century, most of the firms that processed furs had premises near the port, especially along rue Saint-Paul. But as the building grew older and fire insurance companies more exacting, they were gradually forced to move into the five-hectare rectangular area they still occupy, bordered by rue Major and rue St Alexandre, between de Maisonneuve and Sainte-Catherine. The district is therefore concentrated in the city centre (on the pattern of the fur districts in New York, London and, to a lesser extent, Frankfurt). Indeed, most of the district is located in twelve main buildings (see Appendix 2).

¹² As regards training, most emphasis was initially placed on lamination and padding processes. At present, by contrast, most effort goes into cabinet work and CFAO.

¹³ Available technologies include canvas-cutting by compressed air jet, the use of robots for resin injection, wood-cutting by numeric control, etc.

The Montreal fur district comprises 554 companies working in production (cleaning, dyeing, cutting, making up, finishing), distribution, sales, design and creation. The tanneries alone are located outside Montreal for obvious environmental reasons. Eighty per cent of firms have fewer than ten employees (a third have fewer than two employees, 4.1 per cent have more than 50 employees). The companies belonging to this district are particularly closely interlinked, with 80 per cent of them working on a more or less subcontracting basis. A lot of trading takes place from hand to hand, given the close proximity of companies. The leading companies are the larger ones or those with internationally famous brand names. Integration tends to proceed by formal pact (see Appendix 3). Most of the employees are women, many of whom are recent immigrants.¹⁴

Production is predominantly up-market, taking advantage of Canada's fame as a fur-producing country. Lower range production is being gradually left to countries such as South Korea. More than 80 per cent of production is exported, either directly (50 per cent goes to the US) or indirectly by sales to tourists visiting showrooms or from city hotels.

The district benefits from forms of direct institutional support for the fur industry such as the Annual International Montreal Fur Salon and the special training courses that are held at three Montreal colleges (even though some specialisations are not taught). The district is also helped by the Montreal fashion industry, with its two annual salons, and by its access to the Quebec Specialist Fashion Center, the Quebec Center of the Computerisation of Production, and to a range of aid packages developed by central and state governments. These include start-up programmes for entrepreneurs, strategic managerial training schemes, programmes designed to promote scientific employment, subsidies for trade trips abroad, help with promotion work, design, etc.

Competition in this industry is relatively low-key because of the fame of Canadian fur products. Free trade with the US can only benefit the industry, as company owners themselves acknowledge.¹⁵

However, the district is faced with at least three problems. First, it is now undergoing considerable pressure as regards property, caught as it is between office-boom areas. Secondly, it has to deal with growing pressure from animal protection groups. Lastly, new creative personnel and good designers are in short supply at a time when fashion is undergoing rapid change. There is also a growing need for greater computerisation in production.

As regards the first problem, the city is in the process of adopting a strategy designed to protect the area while promoting its modernisation. As for animal rights issues, a special tax is being levied on each processed hide so that world-wide counter campaigns can be mounted. At the same time, there is a trend towards the use of increasingly pain-free ways of capturing animals. There remains, however, much to be done in this area. As for the third problem, there is still a lack of concerted action by

¹⁴ Source: Report by the Intermunicipal Commission on Metropolitan Development on "La cité de la mode et le district de la fourrure", Montreal, April 1989.

¹⁵ See the investigation carried out by Lavallin for CIDEM (Rapport sur "La cité de la mode et le district de la fourrure", Appendix 1, Montreal, April 1989). This investigation, using a representative sample of owner-managers, showed that 67 per cent of them felt "very optimistic" or "fairly optimistic" about the consequences of free trade.

the various actors involved (manufacturers, designers, specialised schools, council bodies, central and state governments, and so on). Indeed, even the business associations needed to do the lobbying have still to be created.¹⁶ Lastly, the level of penetration, achieved, for example, by the CAO and the FAO, is still very low. It is true that new technologies are still ill-suited to this industry, but little or no effort is being made to develop such technologies further.

V.3 The Bois-Francs furniture producing industrial district

Lastly, the small furniture-producing industrial district in the Bois Francs region, an area that is still very rural, has been in existence since the beginning of the century. In 1989 the district comprised 37 firms, 74 per cent of which had fewer than 20 employees. Its location at the beginning of this century, around the periphery of the small town of Victoriaville, may be explained by the nearby forests which in those days supplied the species required by the industry. Regrettably, for a variety of reasons, the forests have been decimated and much of the wood that is needed is now imported. This has increased costs relative to certain of the district's competitors.

Production here has long been aimed down-market. This has meant that when American production (in particular in North and South Carolina, where much of American furniture manufacturing is concentrated) were faced with a slow-down in output, they could off-load their surplus on the Canadian market, thereby sparking a sporadic crisis throughout the region.

The local authorities have developed two important long-term strategies. First, by dint of patient representations, they managed to persuade the government in 1964 to establish in the region the only specialist school in Quebec to train students in furniture production and wood carving skills. The aim of this initiative is to create a skilled workforce able to develop traditional working methods. Following this, and in collaboration with the college of the region, the Bois-Francs Economic Development Corporation secured the creation of a training centre specialising in furniture design and production technologies. These policies have helped the industry to modernise, to improve its recruitment, to help a few of the firms to move up-market and, lastly, to enable some of the firms to specialise in particular fields and hence to contribute inter-firm co-operation.

However, this strategy only reaches a few firms as yet and competition is bound to grow tougher with the free trade agreements that will come into force by 1994, abolishing tariffs that currently stand at 15 per cent. At present, 88 per cent of exports of these products from Quebec are destined for the United States, whereas only 52 per cent of imports come from the US, accounting for only 8 per cent of the Quebecois market. The district as a whole therefore still faces numerous difficulties. Already, between 1985 and 1989, 30 per cent of the jobs in the industry have been lost. Elsewhere in Quebec, however, this industry has managed to grow stronger, above all by reducing unit costs.

Here, too, long-term environmental monitoring remains quite inadequate. Marketing, design and distribution strategies to tackle purchaser concentration are still ill-developed. Even available assistance from programmes such as the "Access-design"

¹⁶ In the poll already cited, only 23 per cent of respondents were "wholly" or "mainly" in favour of such a body, with 22 per cent against and 55 per cent not giving any answer!

scheme is underused. Moreover, local institutions have been slow to address these issues, even though recently some encouraging efforts have been made.

VI. Conclusion

In view of current economic trends and the ability of districts to respond to the new international environment, the future development of districts, within the framework, for example, of the international division of labour, remains wholly questionable. Yet it is not the first storm that districts have had to weather. Though perhaps the storm is more violent than before.

One thing appears certain: the districts will not be able to survive the storm on their own. They must get greater support from the State, and not merely of a short-term nature (start-up or "incubator" assistance, funding, enterprise creation) as before, but rather long-term economic aid. First of all, this support must involve the co-ordination of energies in both industry and the services, and also the creation of new information services to improve links between territorial organisations and extra-territorial and international networks of information.

With help from local government bodies, districts should promote the creation of broad networks comprising both production companies and service firms (distribution, creation, consultancy, information, etc.) as well as local institutions.¹⁷ Such networks should provide further facilities for information monitoring and exchange with the district environment in order to promote an exchange of energies that would encourage the transfer of savings and investment, product innovation and organisation, new technologies and a highly specialised workforce that the district cannot itself train. The goal of this intervention is to create a "virtuous" circle of organisation/information/innovation. Put another way, districts, as they develop, with all their political, manufacturing and tertiary resources, need to behave as multinational companies in terms both of technological and commercial monitoring and of the renewal of internal resources. But they cannot undertake such long-term change on their own. They must be given support not only by local institutions but also as regards personnel training and assistance co-ordinated by the territorial State.

This kind of change to the district's environment may mean its thorough-going transformation, with the development, for example, of increasingly hierarchical relations between different enterprises. This may be the structural price to survive and to continue developing.

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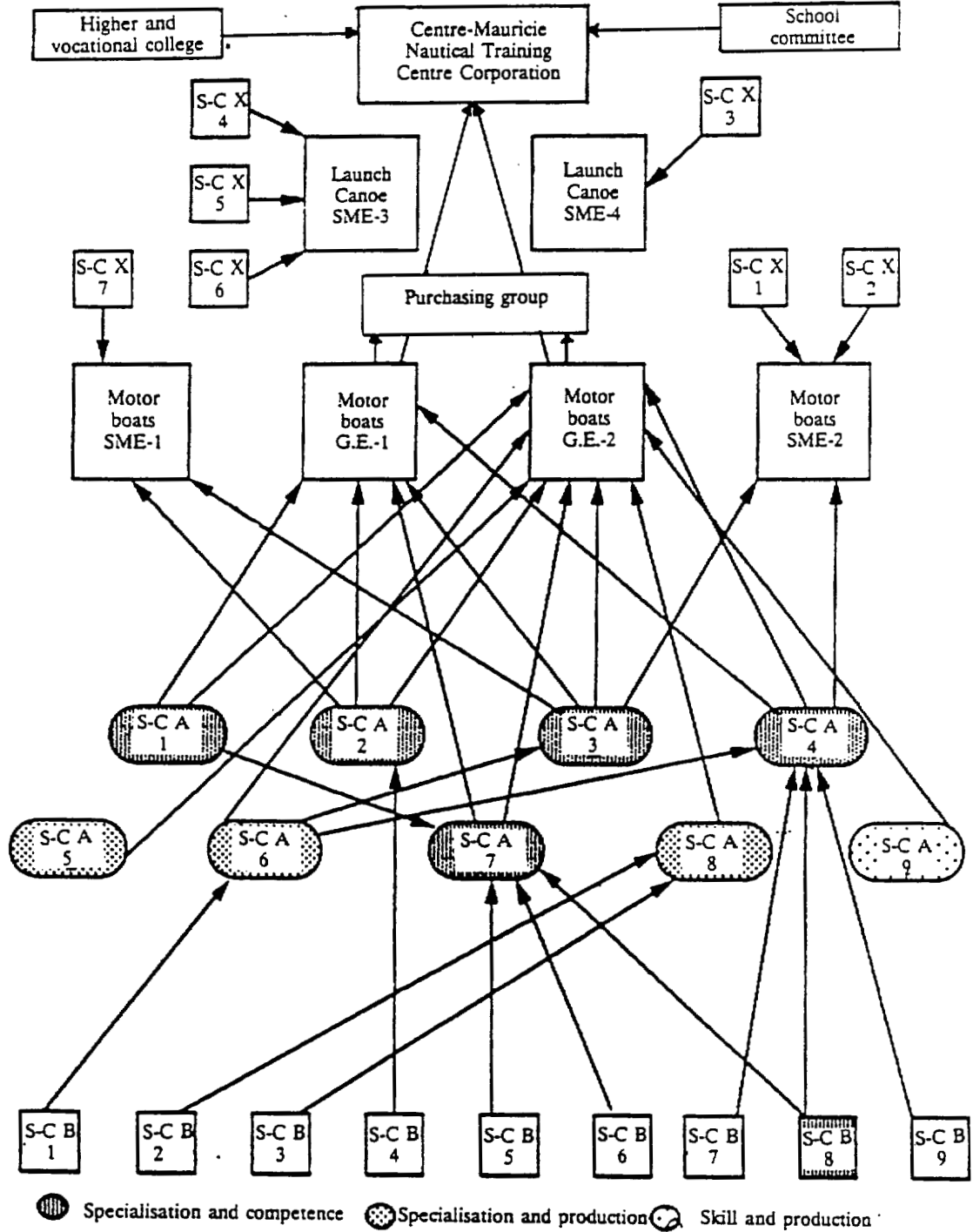
¹⁷ On the role played by economic information networks, see, for example, Maillat and Perrin [1989] or Rothwell [1990].

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Appendix 1

Inter-firm relations in the Centre de La Mauricie pleasure craft industry



Source: A. Dumas, 1990.

S-C = Sub-contractor

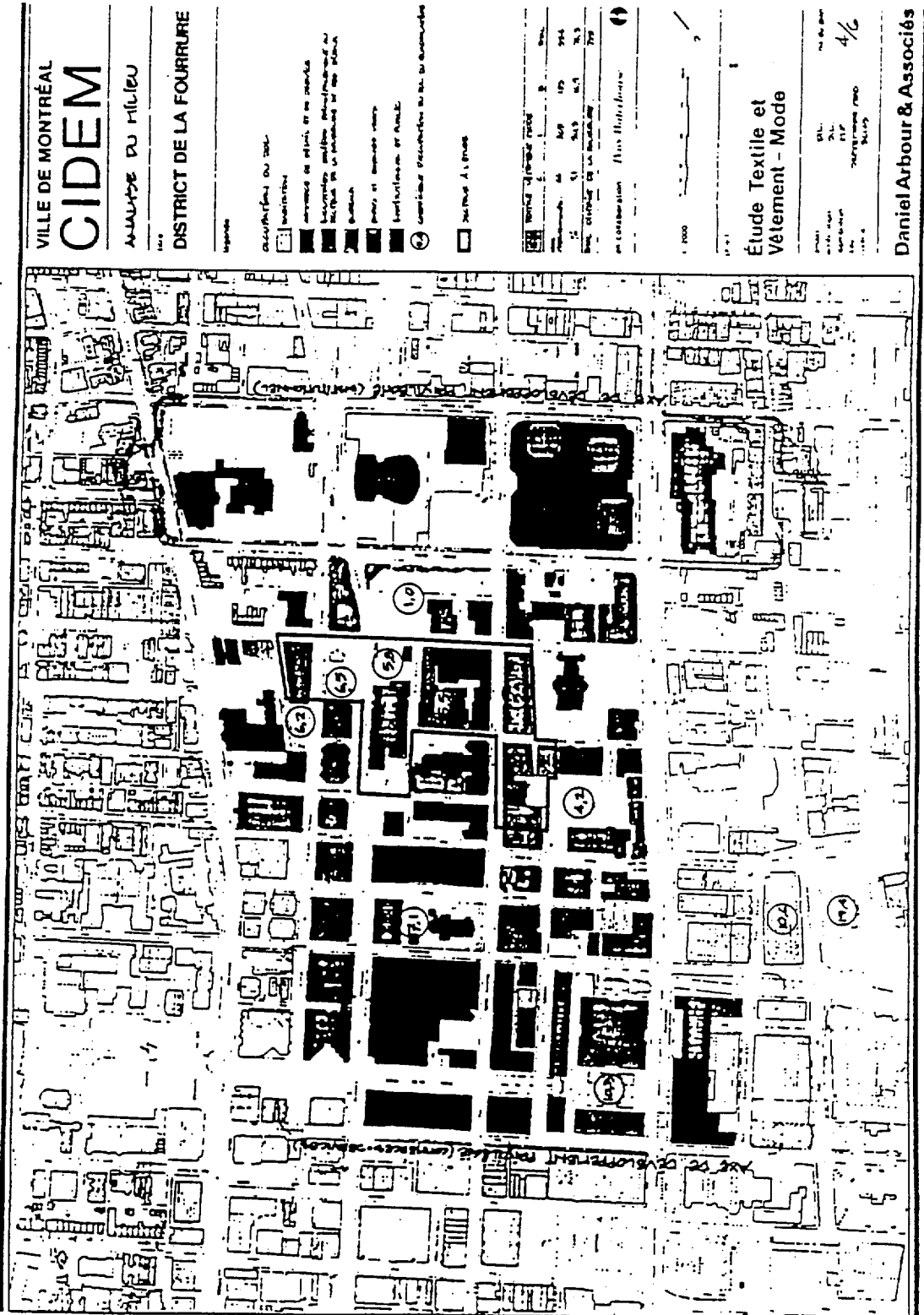
S-C A - 1: blown urethane
 S-C A - 2: tanks
 S-C A - 3: support bars
 S-C A - 4: instrument panels and equipment
 S-C A - 5: plexiglass window
 S-C A - 6: fuse plates, strap hinges
 S-C A - 7: instrument panels and equipment
 S-C A - 8: fibre glass components
 S-C A - 9: cabinet-work

S-C B - 1: welding
 S-C B - 2: wood cutting
 S-C B - 3: strap hinges
 S-C B - 4: accessory assembly
 S-C B - 5: printing on instrument panel
 S-C B - 6: machining
 S-C B - 7: printed circuit base
 S-C B - 8: printing on instrument panel
 S-C B - 9: plastic box drilling

S-C X - 1: hook and rudder machining
 S-C X - 2: canoe canvas
 S-C X - 3: not yet decided
 S-C X - 4: portage bars
 S-C X - 5: padding work
 S-C X - 6: launch pincers
 S-C X - 7: cabinet work

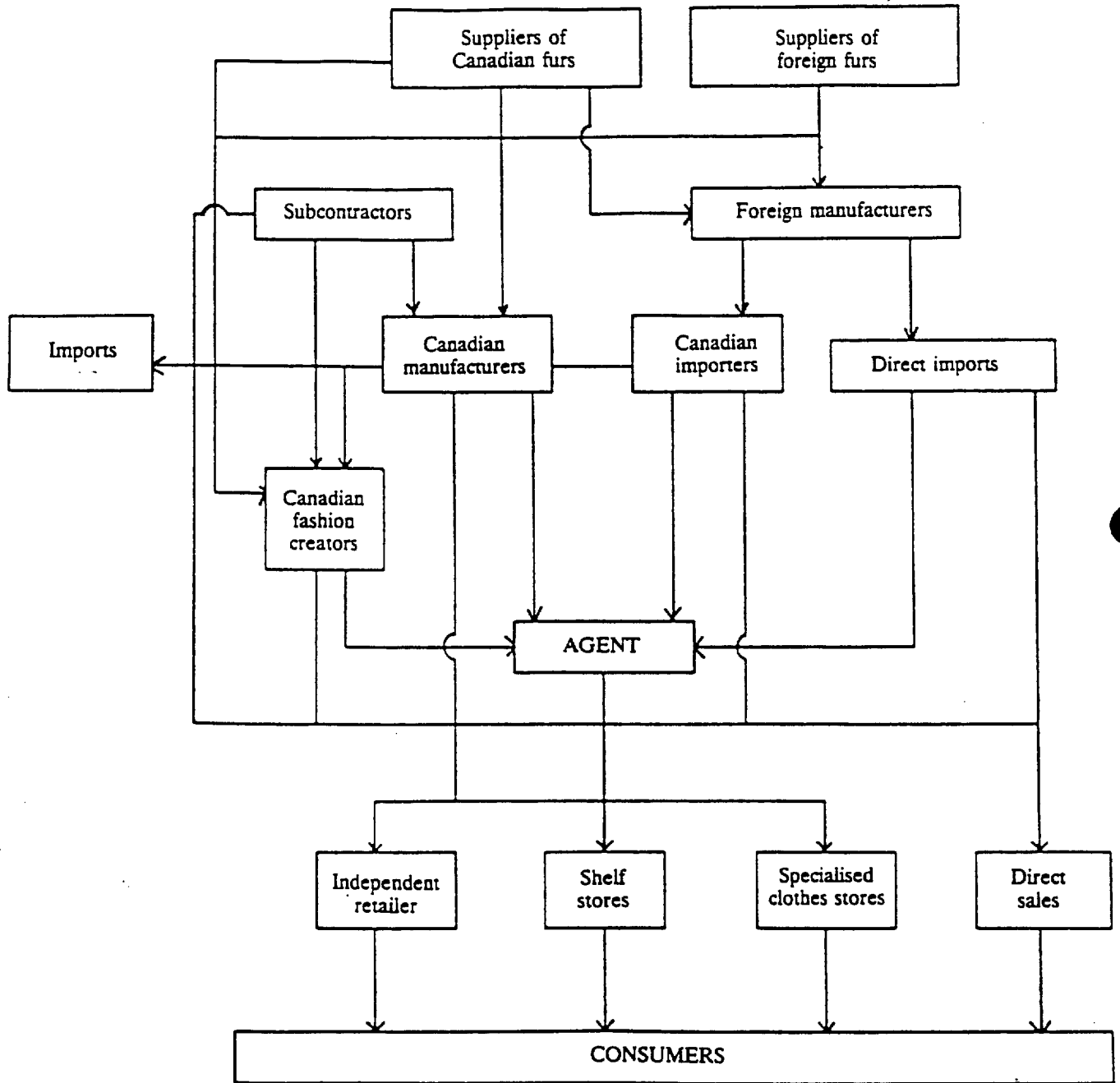
Appendix 2

City of Montreal Fur District



Appendix 3

Diagram of fur industry in Montreal



Source:
April 1989.

Price Waterhouse, *Etude sur l'industrie de la mode de la fourrure*, Cidem,

Appendix 12.

Law of Ukraine on Foreign Investment Procedure -
March 19, 1996 - Joint Working Group (translation)

Law of Ukraine

On Foreign Investment Procedure

This Law determines specific features of the foreign investment procedure within the territory of Ukraine according to the objectives, principles and provisions of the Ukrainian legislation.

Section 1. General Provisions

Article 1. Definitions Used in the Law

The meaning of the terms used in this Law is as follows:

1. Foreign Investors: subjects carrying out investment activities on the territory of Ukraine, i.e.,:

Legal persons created according to the legislation other than the Ukrainian legislation;

Physical persons - foreigners without permanent place of living on the territory of Ukraine which have no constraints in their activities;

Foreign states, international state and nonstate organizations;

Other foreign subjects of investment activities determined under the Ukrainian legislation;

2. Foreign Investments: values invested by foreign investors into subjects of investment according to the Ukrainian legislation to gain profit or achieve social effect;
3. Enterprise with Foreign Investments: an enterprise of any structural and legal form created according to the Ukrainian legislation with any foreign investment share in the authorised fund, but not less than 10%.

An enterprise is gaining a status of the enterprise with foreign investments as from the day of crediting of an investment to its balance sheet.

Article 2. Types of Foreign Investments

Foreign investments may be made in:

foreign currency determined as convertible by the National Bank of Ukraine;

Ukrainian currency when reinvesting in the subject of primary investment or any other subject of investment according to the Ukrainian Legislation on condition of tax income (revenues) payment;

any kind of property including real estates, and associated property rights; shares, bonds, and other securities, and corporate rights (property rights for a share in the

authorized fund of a legal person created according to the Ukrainian legislation or the legislation of other countries) presented in convertible currency;

cash requirements and the right to require execution of contractual obligations guaranteed by first class banks and valued in convertible currency that is to be confirmed according to the laws (procedures) of the investor's country or international trade rules;

any intellectual property rights valued in convertible currency that is to be confirmed according to the laws (procedures) of the investor's country or international trade rules, and by expert judgement within Ukraine including rights of authorship, rights of inventions, useful prototypes, industrial specimens, brands of products and services, know-how, etc., legalized on the territory of Ukraine;

rights for performing economic activities including rights to use mineral resources granted according to existing legislation or agreements, value of which shall be confirmed by the laws (procedures) of the investor's country or international trade rules;

other values according to the Ukrainian legislation.

3. Forms of Foreign Investments

The forms of foreign investments may be as follows:

partial equity in enterprises created jointly with Ukrainian legal and physical persons, or partial purchase of existing enterprises;

creation of enterprises which will fully belong to foreign investors, affiliates and other separated subdivisions of foreign legal persons, or purchase of the existing enterprises into full ownership;

purchases, which is not subject to prohibition under the Ukrainian legislation, of movable or immovable property including houses, apartments, premises, equipment, transport means and other subjects of property through direct transfer of property and property complexes, or through shares, bonds, or other securities;

individual purchases, or with participation of the Ukrainian legal or physical persons, of the rights to use land and utilize mineral resources within the territory of Ukraine;

purchase of other property rights;

other forms not prohibited under the Ukrainian legislation including those which do not envisage creation of a legal person under agreements with subjects of economical activities within Ukraine.

Article 4. Subjects of Foreign Investment

Foreign investments may be made into any objects, the investment to which is not prohibited by the Ukrainian legislation.

Article 5. Estimate of Foreign Investments

Foreign investments and investments of the Ukrainian partners including contributions to the authorized fund of enterprises shall be estimated in foreign convertible currency and the Ukrainian currency as agreed by the parties according to the prices on international markets or on the market of Ukraine.

The investment amounts in foreign currency shall be converted into Ukrainian currency according to the exchange rate of the National Bank of Ukraine.

When reinvesting income, profit and other funds received in the Ukrainian currency as a result of foreign investment, they shall transfer the investment amounts according to the official currency rate of Ukraine determined by the National Bank of Ukraine as of the day of actual reinvestment.

Article 6. Legislation on Foreign Investors Activities within the Territory of Ukraine

This Law, other legislative enactments and international agreements of Ukraine regulate relations associated with foreign investments within Ukraine. In case when other rules than those determined by the Ukrainian legislation are established under the international agreement of Ukraine, the provisions of the international agreement shall be applied.

Section II. Government Guarantees of Foreign Investment Protection

Article 7. Legal Control of Investment Activities

The national treatment of investment and other economic activities shall be established for foreign investors on the territory of Ukraine with exceptions envisaged by the Ukrainian legislation and international agreements of Ukraine.

A privileged treatment of investment and other economic activities shall be established for subjects of business activities carrying out investment projects with participation of foreign investments realized according to government programs on the development of priority branches of the economy, social sphere and territories.

The Ukrainian laws may determine territories on which the activities of foreign investors and enterprises with foreign investments will be restricted or prohibited because of the requirements of the national security.

Article 8. Guarantees in Case of Legislation Changes

If in future the guarantees of foreign investment protection under Section II of this Law are changed according to special Ukrainian legislation, within ten years as from the day of putting in force such legislation the government guarantees of foreign investment protection stipulated in this Law shall be applied on the request of a foreign investor.

Article 9. Guarantees of Compulsory Withdrawals and Illegal Actions of Government Bodies and their Officials

Foreign investments within Ukraine are not subject to nationalization. The government bodies have no right for requisition of foreign investments except for carrying out rescue measures in case of a natural calamity, emergencies, epidemics, epizootics. The requisition may be conducted according to the decisions of the bodies authorized by the Cabinet of Ministers of

Ukraine.

The decisions on requisition of foreign investments and terms of compensation may be appealed according to the court procedure under Article 26 of the Law.

Article 10. Compensation and Reimbursement of Losses to Foreign Investors

Foreign investors will have right for compensation for losses including lost profit and moral damage resulted from inactivity or inadequate execution of obligations by the government bodies of Ukraine envisaged by the legislation before a foreign investor or an enterprise with foreign investments according to the Ukrainian legislation.

All costs and losses incurred by foreign investors as a result of actions stipulated under Article 9 and the first part of this article shall be reimbursed according to current market prices and/or proved estimate confirmed by the auditor or audit company.

Reimbursement to a foreign investor shall be prompt, adequate and effective. Reimbursement to a foreign investor as a result of actions under Article 9 of the Law shall be determined as of the day of termination of the property right.

Reimbursement to a foreign investor as a result of actions stipulated in the first part of this article shall be determined as of the day of actual executing of the decision on reimbursement of losses. They shall pay the amount of reimbursement in the currency of investment, or any other currency acceptable for a foreign investor under the Ukrainian legislation. From the day of granting the right for reimbursement until the day of its payment they shall make an interest charge on the amount of reimbursement based on the average interest rate according to which London banks give loans to first class banks on the European Currency Market (LIBOR).

Article 11. Guarantees in Case of Termination of Investment Activities

In case of termination of investment activities a foreign investor will have the right not later than within six months from the day of termination of such activities to have his investments back in the natural form or in the currency of investment at the amount of actual contribution (including the possibility of authorized fund reduction) before taxation, and profit from such investments in cash or products based on the real market cost as of the day of termination of investment activities, unless otherwise stated by the legislation and international agreements of Ukraine.

Article 12. Guarantees of Transfer of Profit, Revenues and Other Funds Received in the Result of Foreign Investment

After payment of taxes, charges and other compulsory payments foreign investors will have guarantees of unimpeded and immediate transfer abroad of their profit, revenues and other funds in foreign currency received on a legal basis in the result of foreign investment.

The National Bank of Ukraine shall determine the procedure to transfer abroad profits, revenues and other funds received from foreign investment.

Section III. The State Registration and Control of Foreign Investment

Article 13. The State Registration of Foreign Investments

The Autonomous Republic of Crimea, regional, Kiev and Sebastopol city state administrations shall carry out the state registration of foreign investments within three business days following actual investment according to the procedure of the Cabinet of Ministers of Ukraine.

Unregistered foreign investments shall not give the right to receive the privileges and guarantees envisaged by this Law.

Article 14. Refusal of State Registration of Foreign Investments

Refusal of state registration of foreign investment may have place only in case of breach of the established registration procedure. The refusal motivated by its inexpediency shall not be allowed.

The refusal of state registration of foreign investments shall be arranged in written form with indication of the refusal motives and may be appealed according to the court procedure.

Article 15. Statistic Reports on Foreign Investments

The foreign investment state registration bodies, enterprises with foreign investments, tax and customs agencies, and bank institutions shall submit statistic reports on foreign investments according to the established forms and terms.

Section IV. Enterprises with Foreign Investments

Article 16. Organizational and Legal Forms of Enterprises with Foreign Investments

On the territory of Ukraine the enterprises with foreign investments shall be created and shall function according to the forms envisaged by the Ukrainian legislation.

Article 17. Foundation Documents of Enterprises with Foreign Investments

The foundation documents of enterprises with foreign investments shall include information envisaged by the Ukrainian legislation for relative organizational and legal forms of enterprises, and information on the state status of their founders (participants).

Article 18. Imposition of the Customs Duty

The property which they bring to Ukraine as a foreign investor's contribution to the authorized fund of the enterprise with foreign investments (except for goods for sale or personal needs) shall be exempted from duties.

The customs agencies shall admit such property to the territory of Ukraine according to a one-name paper at the amount of the duty with delayed payment not later than 30 calendar days as from the day of arrangement of the entry goods duty declaration.

The bill will be paid and the import duty will not be collected, if in the grace period the property is included into the enterprise balance sheet, and the local tax inspection makes a respective note in the copy of the bill.

The Cabinet of Ministers of Ukraine shall establish the procedure for issuing, discounting and

paying of the bills.

If within three years from the day of putting a foreign investment into the balance sheet of the enterprise with foreign investments the property imported into Ukraine as a contribution of a foreign investor to the enterprise authorized fund is alienated including the case when the enterprise stops its activities (except for the case when a foreign investment is exported), the enterprise with foreign investments shall pay an import duty which is to be charged on the basis of the property customs value converted into the Ukrainian currency according to the official exchange rate of the Ukrainian currency determined by the National Bank of Ukraine as of the day of the property alienation.

Article 19. Sale Terms for Products (Works, Services)

The enterprise with foreign investments will independently determine the sale terms for products (works, services) including their prices unless otherwise is envisaged by the Ukrainian legislation.

The products of the enterprise with foreign investments are not subject to licensing and quoting, if they are certified as the enterprise own production according to the procedure established by the Cabinet of Ministers of Ukraine.

The products under special export procedure shall be exported according to the Ukrainian legislation.

Article 20. Taxation

Enterprises with foreign investments shall pay taxes according to the Ukrainian legislation.

Article 21. Rights of Intellectual Property

Protection and execution of the intellectual property rights of enterprises with foreign investments shall be ensured according to the Ukrainian legislation. Enterprises with foreign investments shall independently make decisions on patenting (registration) abroad of inventions, industrial specimens, trade marks and other objects of intellectual property, which belong to them, according to the Ukrainian legislation.

Section V. Foreign Investments Based on Concession Agreements, Agreements (Contracts on Production Cooperation, Joint Production and Other Types of Joint Investment Activities

Article 22. Concession Agreements

The rights to develop renewable and nonrenewable natural resources, carry out economic activities connected with use of the state-owned objects which were not transferred to enterprises, institutions, organizations into their full ownership or operative management shall be granted to foreign investors on the basis of concession agreements which the Cabinet of Ministers or the authorized state body shall conclude with foreign investors according to the Ukrainian legislation. The validity term of the concession agreement shall be determined according to the concession character and conditions but shall not exceed 99 years. If concession agreements include conditions not envisaged by Ukrainian legislation, they shall be

approved by the Verchovna Rada of Ukraine.

Article 23. Agreements (contracts) on Investment Activities

Foreign Investors shall have the right to conclude agreements (contracts) on joint investment activities (production cooperation, joint production, etc.), which are not connected with creation of a legal person, according to the Ukrainian legislation.

Article 24. Regulation of Economic Activities under the Agreements (Contracts)

Economic activities based on the agreements (contracts) under Article 23 of the Law shall be regulated according to the Ukrainian legislation.

Parties to the agreements (contracts) shall carry out separate accounting and make reports on operations connected with execution of the provisions of the agreements (contracts), and open separate accounts in the bank institutions of Ukraine to make settlements under these agreements (contracts).

The agreements (contracts) shall be registered within the terms and according to the procedure established by the Ukrainian Cabinet of Ministers.

The property (except for the products for sale or personal needs), which foreign investors bring to Ukraine for not less than three years for making investments based on the registered agreements (contracts), shall be exempted from the customs duty according to the procedure envisaged by the second and third parts of Article 18 of the Law. In case of alienation of this property before the three-year period from the day of putting it into a balance sheet, the duty shall be paid according to the procedure envisaged by the fifth part of Article 18 of the Law.

Profit from joint investment activities under agreements (contracts) are subject to taxation according to the Ukrainian legislation.

Section VI. Foreign Investments in Special (Free) Economic Zones

Article 25. Regulation of Foreign Investments in Special (Free) Economic Zones

Specific features of foreign investment regulation in special (free) economic zones shall be established by the Ukrainian legislation on special (free) economic zones. Legal treatment of foreign investments, which is established in special (free) economic zones, cannot create conditions for investment and economic activities less favorable than those established by this Law.

Section VII. Dispute Settlement

Article 26. Dispute Settlement Procedure

Disputes between foreign investors and the state on the state regulation of foreign investments and activities of enterprises with foreign investments shall be handled in the Ukrainian courts unless otherwise stated in the international agreements of Ukraine.

All other disputes shall be handled in the Ukrainian courts and/or arbitration courts, or as agreed by the parties in arbitration courts including those abroad.

Article 27. Concluding Provisions

To recognize validity of the following as expired:

The Ukrainian Law "On Foreign Investments" (Vidomosti of the Verchovna Rada of Ukraine, 1992, No.26, Article 357);

Decree of the Ukrainian Cabinet of Ministers as of May 20, 1993, No.55-93 "On Foreign Investment Procedure" (Vidomosti of the Verchovna Rada of Ukraine, 1993, No.28, Article 302);

The Ukrainian Law "On the State Program for Encouragement of Foreign Investment in Ukraine" (Vidomosti of the Supreme Rada of Ukraine, 1994, No.6, Article 28).

L.Kuchma
President of Ukraine

Kiev
March 19, 1996
No.93/96 - BP

RESOLUTION
of the Verkhovna Rada of Ukraine

On the order of putting into force the Law of Ukraine
"On foreign investment procedure"

The Verkhovna Rada of Ukraine decrees:

1. Put into force the Law of Ukraine "On foreign investment procedure" from the date of publication.
2. The Cabinet of Ministers of Ukraine shall give consideration to the creation of the national agency for the promotion of foreign investments to Ukraine.
3. The Cabinet of Ministers shall in a month's period:

approve the order of: state registration of foreign investments; registration of agreements (contracts) on the joint activity with a foreign investor; determination of own production; drawing, discounting and paying of bills made out on importation of property to Ukraine as a foreign investor's contribution to the authorized fund of an enterprise with foreign investments, or under an agreement (contract) on the joint activity with a foreign investor; payment of import duties in case of alienation of the property which was imported to Ukraine as a foreign investor's contribution to the authorized fund of an enterprise with foreign investments, or under an agreement (contract) on the joint activity with a foreign investor;

bring resolutions of the Verkhovna Rada of Ukraine into line with this Law as well as ensure revision and abolition by ministries, departments and other state executive power bodies of enactments which contradict this Law;

submit for the consideration of the Verkhovna Rada of Ukraine proposals about bringing of Ukraine's enactments into line with this Law and introduction of alterations and amendments to the Law of Ukraine "On taxation system" in respect of retaining of guarantees for enterprises with qualified foreign investment in case of introduction of new taxes.

4. The Cabinet of Ministers shall, in three month's period, work out and submit to the Verkhovna Rada of Ukraine draft enactments that result from this Law and Draft Law of Ukraine on according preferential treatment to investment and other economic activity for the realization of certain investment projects.
5. Establish that in respect of foreign investment which had been actually contributed before this Law entered into force, the state guarantees shall be applied, on foreign investor's demand, which were envisaged by special Ukraine's legislation on foreign investment which was valid on the day when such investment was made.

O.Moroz,
Chairman of the Verkhovna Rada of Ukraine
Kiev, March 19, 1996

No.94/96-BP

Appendix 13.

Short Analysis of Ukrainian Legislation on
Restructuring Monoindustrial Region- Joint
Working Group working papers

SHORT ANALYSIS

of the Existing Ukrainian Legislation on Restructuring of Monoindustrial Region of Slavutich City

1. The existing compensation mechanisms when cutting off the labor force

It was the first time when in 1991 the state through adoption of the law "On the Population Employment" officially recognized the notion of unemployment itself and made the first steps for regulating the issues connected with losing a working place by a citizen. Since then the state undertook substantial legal and material obligations before the residents of Ukraine on their employment, prevention of unemployment, compensations and guarantees in case of losing work.

When dismissing the personnel of the Chernobyl Atomic Power Plant due to production restructuring, the state promises the following major guarantees to every dismissed worker:

- a) in case when within ten days he does not receive a suitable work offer, he will acquire a status of unemployed;
- b) during the following three months he will receive the unemployment benefit of 75% of his average salary and 50% more during the following six months but no more than the average salary in the relevant industry of the national economy;
- c) if he gets a job, at his new place of work for the whole period of professional out-plant retraining he will retain an average salary of the previous place of work;
- d) persons of age close to retirement who have the necessary total length of service established by the legislation (including privileges) will receive the right to retire one year and a half before the established term.

In addition, the labor legislation (Clause 49-3, the Labor Safety Code of Ukraine) guarantees this category of workers the retention of their average salaries during looking for a job but no more than for three months from the day of dismissal including dismissal benefit payment. They shall pay the dismissed workers the monthly dismissal benefit and the retained average salary at the previous place of work. The continuous record of work shall be retained within three months.

The persons of the first, second and third categories, who suffered from Chernobyl disaster, shall receive the dismissal benefit three times more than the average salary. When getting a new place of work, they shall receive their salary within the retraining period but no more than a year.

The material help the unemployed from the government is time limited. They established three year total period with only twelve months paid. During the first year an unemployment benefit is to be paid for no more than six months, during the second year for no more than three months, and during the third year the remainder not used within the two previous years.

The Ukrainian legislation established general compensation rates for dismissal. The legislation did not establish special rules to ensure compensation for separate categories of workers based on their occupation. They allocate money from Chernobyl only to those persons whom they recognized as suffered from Chernobyl disaster.

The listed types of ensuring employment of the population envisage a smooth process of labor force cutting off, and a social security mechanism is not intended for concentration of many dismissed workers in a narrow area. For mass dismissal of the workers of the Chernobyl Atomic Power Plant the government can offer only the above-mentioned compensation types with additional declarative guarantees of the employment and skill conversion rights.

The existing legislation does not include enactments regulating the personnel transfer to similar kinds of industry, or its resettlement due to the industry restructuring. Now, the state only declared its readiness to develop measures on encouraging voluntary resettlement with allocation of relevant material and financial resources. It is not clear whether this option is possible for this case but the most favorable for Slavutich is the legislative provision, according to which the Cabinet of Ministers of Ukraine could determine the territories where the state encourages the development of work places. A basis for determination of such territory is the territory with a high level of unemployment.

The legislation established that enterprises, organizations, institutions, which create on these territories their production entities, their affiliates and additional places of work, should have privileges according to the procedure and provisions under the Ukrainian legislation and decisions of the local Councils of People Deputies.

For the moment one might only make a suggestion about the size of the government responsibility for canceling the Chernobyl Plant operations. However, in case of adoption of the mentioned enactment on the status of Slavutich territory, with certain granted privileges a real possibility might appear to create new production facilities and, consequently, new places of work. This will be an independent process with participation of various businesses encouraging creation of new places of work, and it will not be dependent on government activities and its proposals. The obstacles to this process development are the unpredictability of the central authorities and instability of such "privileged" enactments.

2. Industrial restructuring and municipal services

The Law of Ukraine "On Local Councils of People Deputies and Regional Administrations" and the Presidential Decree "On Delegation of Powers of the State Executive Authorities to the Heads of Executive Committees of Village, Settlement and City Councils, and the Committees they head" are the basic legislative base that establishes a legal field of activity for local authorities. The mentioned norms do not implicate a notion of "rendering services" by local administrations. However, the normative enactments include certain powers in such spheres as planning and accounting, budget and finances, management of the municipal property and local economy development, environment protection, construction, housing, municipal, trade services, transport, communications, social services, public security, foreign economic activity, and powers delegated by the state.

Responsibilities of local authorities before citizens and enterprises envisaged by the legislation so that the responsibilities equal to the listed powers. According to the legislation, the city authorities shall bear responsibility for legitimacy and consequences of the adopted decisions. They also envisage court protection of the rights of citizens and legal persons.

The damage caused by illegal actions of administrative bodies shall be covered at the expense of their own funds.

The specific features of the status of Slavutich, Chernobyl disaster zone and the Chernobyl Plant itself are determined by the Ukrainian Law "On the Legal Regime of the Territory Suffered from Radioactive Pollution due to Chernobyl Disaster". These features depend on the territory status and include certain constraints for production and other kinds of activity. Also, the territory status determines the particular list of measures carrying out on this territory. The privileges exercised before on such territories were blocked up.

In the disaster zone the permanent residency and activities aimed at manufacturing of goods, agricultural, forest and other activities are prohibited without special permission.

In the zone of rigid radioactive control where Slavutich is attributed the construction of sanatoria, child camps, holiday houses, and construction of enterprises with harmful effect on the population health and environment, any other activity deteriorating the radioactive situation are prohibited.

There is no administrative subordination between Slavutich and Chernigov regions. According to the territorial division Slavutich is under subordination of the Kiev regional state administration. The latter is the regional executive body and has the right to suspend the decisions of the city Council of People Deputies, the Head of the Council, executive committee until the decision of the issue by the court. The state administration has no right to interfere with execution of local administration powers.

3. Legislation and economic activity

Industry restructuring makes it necessary to restore to life a range of economic activity areas and sectors. Now, Legislative climate in Ukraine is not favorable enough for this process to develop. There is no particular legislative tool in the National legislation capable of affecting positively the development of the Slavutich district. The legislative basis has been in a formation stage. 388 enactments are planned to be adopted by the Verkhovna Rada in the first half of the year. This legislative process is under strong political pressure. Those acts which were adopted earlier are unstable and frequently revised. Many of them contradict each other and interfere with production relations development.

One of the serious drawbacks to production development, not only in Slavutich, is large number of taxes, compulsory payments and their high rates. Currently, an Ukrainian taxpayer bears a burden of 36 types of taxes, compulsory fees and payments. Besides this, there are payments to special funds the number of which totals from 140 to 390 (Law and Business No.18 of March 30, 96).

Adoption of the Law of Ukraine "On some issues of currency regulation and taxation of entities of the "Syvash" experimental economic zone" of February 23, 1996 was the first real attempt to apply purely legislative tool to prompt the development of a separate region. For this purpose privileges were established for entrepreneurial entities which make investments within this zone. The scope of those privileges is rather narrow but allowing for economic

situation in Ukraine they are of substantial importance in the entrepreneurial activity. As it flows from the Law, raw materials, equipment (except the goods subject to excise tax) imported to Ukraine for the needs of own production are not subject to customs duty and the VAT; on certain condition of investments in the "Syvash" zone, the profit tax will be cut by 50% and earnings in hard currency are not subject to compulsory sale.

Such law stands alone on the side of the current legislative process and not fits into the purposeful actions of the central bodies on the abolition of existing privileges. When the government is feverishly looking for additional sources for the budget replenishment, there is no use in relying on a law like this to be adopted in respect to Slavutich. According to Article 34 of the Law of Ukraine "On the Ukrainian budget system", power bodies' decisions which stipulate cut in budget revenues has to envisage sources for covering them. Taking into consideration this provision and above conditions for granting a status of high unemployment rate zone, it is possible to propose to the Cabinet of Ministers that an act about the status of Slavutich region should be adopted to prevent a threat of mass unemployment. For this purpose it is necessary to make the comparative calculations of future unemployment benefits and supposed financial results from the adoption of said act, carry out research in this problem, with the participation of experts, and draw relevant conclusions about expediency of this act.

Appendix 14.

Joint Working Group Background Paper: Communal
Services in Slavutich

ANNEX

Annex paper for the communal assets

Annex paper for the communal assets

1. Introduction

This section examines the infrastructure of the city, the provision of finance for the communal services and the plans for the City of Slavutich to take over the operation of the social assets now directly provided by CNPP.

The city of Slavutich represents a case of a community almost entirely dependent on a monopolistic enterprise, the Chernobyl Nuclear Power Station. This city was created to serve the station and a majority of the working population is involved with the enterprise.

On the other hand, the city has much in common with other communities in the world and in Ukraine experiencing the same kind of problems associated with closing enterprises associated with mono industrial communities. While each situation is unique, instructive models for addressing the social effects of restructuring can be found (British and German coal mining industries, closing military bases in the US, current process of restructuring the Ukrainian coal sector). The distinctive peculiarity of Slavutich is the fact of its direct connection with the worst nuclear accident in the world.

2. Background

Slavutich is at present a 'city under enterprise', where the CNPP provides the basis for the social and economic infrastructure of the entire community. A significant proportion of the welfare services are provided by the enterprise (and not the City Authority). The workers at the enterprise, their families who live in Slavutich and other member of the community are directly dependent on CNPP not just for their income but for their housing, education and other services.

The City authority at present provides a limited number of services under the supervision of the national ministries such as secondary education under the Ministry of Education and Militia under the Ministry of Internal affairs. The CNPP supplements these services by providing services of a higher standard than provided nationally (e.g. the provision of more Militia) and providing ex gratia payments to federal employees.

3. Social assets

The following services are provided by the CNPP directly or indirectly to the City:

- housing - construction, maintenance, management of free and subsidized housing.
- communal services - construction, maintenance and supply of water, electricity, heating and transport
- amenity services - road maintenance, street lighting
- health care - hospital, clinics, special medical kindergartens
- education - kindergartens, the school of Art

- commercial - food supply and service outlets
- leisure and culture - specialized teachers, cultural center, stadium, sports centers

Attached is a social responsibility map, detailing the ownership, responsibility for maintenance and finance of the social assets in Slavutich.

Education

Data presented by the city and the CNPP shows that there are 9 kindergartens, 5 of which have special profiles. Children under 7 years old attend these facilities regardless of their association with the plant. Management is provided by the CNPP and the city's department of education's. However, all financial responsibilities are assigned to the CNPP including capital construction, operation and maintenance expenditures. 983 people are employed by CNPP for the kindergartens which amounts for 37% of the total number of 'indirect' employees of the CNPP.

The city has three secondary schools for children of 8 to 16 years old. The total capacity of each school is 1266 students, actual attendance is 4786 students for all three schools. The teaching staff consists of 276 people. Management of these facilities is provide by the Ministry of Education through the city's department of Education. Financing of the schools is provided through the local budget from the national budget and amounts to 62% of total expenses of the city for financing of the social and cultural activities. The Chernobyl fund because Slautich is in zone 4 of the Chernobyl exclusion zone pays an additional 30% of basic salaries. Further, the CNPP pays a ex gratia payment of a variable sum depending on the monthly profits to raise the teaching staffs living standards equal to the rest of the population of the City.

The city has specialized school of arts managed by the City's department of Education. The CNPP finances the school including salaries for teachers, necessary supply of materials, maintenance and operation expenditures. The school is owned by the station.

Health care

Although there is limited available data on the health care services, the information provided by the CNPP shows that there is a medical center at the station. It employees 89 people paid by the CNPP. There is over 300 medical personnel directly employed by the Ministry of Health. The medical center at the station provides services directly to the workers but medical facilitates in the city are available for the whole population of Slavutich through a hospital and a network of clinics. The station pay for communal services, maintenance, capital and minor repair workš, as well as ex gratia payments for professional and support staff, and supply of medicines. It is assumed that part of health care expenditures are paid through the Chernobyl fund (taking into account the amount of liquidators in the region) or other extra budgetary sources. The portion of the city's budget for health care consists of 1.7% of its expenses for the social and cultural activities. The CNPP is the main contributor for health care. For in the Donbass region the expenditure on health amounts for 46% of total expenses. This means that almost half of the city's budget should go for health care. In the Kiev oblast they make up 85% of the Oblast budget..

Housing

The CNPP's housing is an integral part of the total housing stock of the city since

many of those not employed by the CNPP residents, live these apartments. According to the presented data there are 7238 apartment units, 432 single dwellings, a number of hostels (where 4000 persons live according to our estimates, or 20% of the adult population of the city). The total number of households is 8530. This housing is owned by CNPP except for 18% which is in registered as in private ownership. This did not involve purchase but registration. Payments for use of housing for units owned by the station as well as for those owned by the municipality are regulated at the national level as elsewhere in Ukraine. The same rates are applied to owners of private apartments and to tenants. Owners' charges for maintenance are identical to tenants' payments. These charges do not vary with the conditions of buildings, their locations or the costs of maintenance.

Slavutich residents pay charges of 60% of the real costs for main communal services (electricity, water, sewerage, garbage disposal, gas etc.). According to Ukrainian law the Communal authority can not charge more than 1% of the minimum wage. The average cost recovery from the residents in other parts of Ukraine is 75 % of the costs of the communal services. Therefore there is a 15% indirect subsidy from the CNPP to all residents. This situation varies in the case of liquidators and evacuees. Private owners are not charged higher for the communal services so they indirectly get a subsidy for their property.

All works on repairs of streets and highways, and maintenance of residential blocks are financed by the station. The station has a housing section with 73 employees, 4 block housing departments with 455 employees plus other ancillary units of employees. All these people are paid by the CNPP as part of its direct labor force.

Strategic management services of the city

Planning and management of communal services are the municipal responsibility and is carried out directly by the City authorities. The employees of the City administration are not paid any ex gratia payment by the CNPP.

Leisure

Facilities related to sports and leisure activities are a stadium, Slavutich TV and radio, the Center of culture and information. They are all financed directly by the CNPP.

4. Finance

There are three basic sources of finance for the provision of services to the population of the City of Slavutich.

- The City of Slavutich is historically dependent on the CNPP for provision of many of its basic services. The CNPP provides directly a number of services such as Kindergartens, road maintenance, housing and cultural activities. It provides capital to construct, budget to operate and maintain and supplies the direct labour. The CNPP states that it expends 41 MUSD per annum on the provision of these services. While 21 MUSD is for the provision of medical services, the breakdown of this amount is not known at present.
- The Central Government through the line ministries and the Kiev Oblast authority provide a number of services directly such as the provision of teachers for secondary schools by the Ministry of Education.

- The City Municipal Authority provides a number of services itself through the city budget such as law and order and social protection. The budgetary expenditure of the city in 1995 was 1.6 MUSD.

Further:

- International organisations, voluntary and governmental organisations provide limited amount of social protection support in the form of the UNESCO centre and provision of medical supplies.
- The Chernobyl Fund provides indirectly services to liquidators such as medical services and direct payments to the CNPP and to the City for the services to liquidators and to persons who live in zone 4 of the exclusion zone.

Unitary budget system

The budget for the city (direct and indirect) comes essentially from the national budget. That is through the provision of finances for the various services from:

- the national budget through the provision of schools teachers in national programmes etc.
- the local taxation and income base in the form of taxation and income earned on the business state run and operated which is transferred to the oblast level.
- the national budget throughout the supply of services from the CNPP to the workers of the station and the city of Slavutich. That is that the needs are requested from the Goscomatom from the station as the ministry to which all the income is given from the sale of the electricity.

CNPP budget

CNPP uses the Soviet accounting system with a few modification to comply with recent laws. In this accounting system, capital is not considered a cost. It is basically a subsidy donated by the state. Production costs are calculated as the sum of expenses for materials, energy, salaries and routine repairs. The profit margin is a percentage of the production costs, and the exact percent is negotiated with the state. The profit margin is used for many expenses which we would consider production costs: taxes, wages, and social infrastructure, such as worker housing, schools and hospitals. Profits are also spent on capital investment funds, and this is those resources that the enterprise can use for efficiency measures elsewhere. Profits are also spent on capital investment funds, and this is those resources that the enterprise can use for efficiency measures elsewhere.

The bottom line of the state procurement system is that there are strong disincentives against any efficiency. In this particular case of the CNPP there should be some resistance to transfer social assets (what we show below). The lower the production costs, the less profit an enterprise earns. Thus, the more the enterprise spends on social assets and salaries to indirect workers in the social sphere, the more profits it receives.

Financial year 1996

The enterprise owned by the state. For 1995 the total revenue of the station was \$224.3 ml, which includes both "profits" and production costs. The enterprise made a profit of 32.8 % thus far last year. According to submitted data the enterprise has

no debt, but because of the inadequate accounting system used in Ukraine, the debt does not show up in the enterprise's accounting balance.

The "profit", as elsewhere in Ukraine, is used to cover some operating expenses. 25% of the profit goes to pay profit taxes. Approximately 32.2% of it is used for maintenance, repair, and capital investments in Slavutich, and 40% for social purposes such as financing worker benefits, plus a portion of worker's salaries.

Production costs are primarily due to fuel purchases and energy (49.7%), followed by materials, services and amortization costs (21.9%). Salaries account for 12.9% of production costs, what is extremely high comparing to other industries in Ukraine. For instance, in the metallurgical production labor makes up from 1% to 5% of production costs. 15.7% of the operating cost at the CNPP is directed to the sector's budget (Goskomatom).

Financial year 1997

According to submitted data, the forecast revenue for the next year from the remained reactor #3 is 122.4 MUSD. Surprisingly, but the operating cost of the unit will increase by \$3.0 ml comparing to the previous year. In 1995, the production cost included \$33.2 ml for services and materials out of the total amount \$153.3 ml. Out of this sum, totally \$23.7 ml was provided to the city in forms of maintenance, repair and capital investments. As a matter of fact, the CNPP's accounting has included costs of materials for social services twice into their expenditures: first, into operating costs, and second, into expenses from the profit.

If we calculate the cost of the materials and services provided to the city as a percentage of a portion of the operation costs spent on this, we come up with 71.3%. This means, \$23.7 ml provided to the city makes up 71.3% of \$33.2 ml spent by the enterprise for materials and services as a portion of its operation costs.

In 1997 the station is not going to pay for maintenance, repair and capital construction in the city. At the same time the operating cost is not going down. So, one can assume that 21.9 % of this sum is allocated for providing materials and services. The amount is \$16.9 ml. 71.3% of this sum goes to the city and represents \$12.05 ml. This amount should be put directly in the enterprise profit.

Now, let's have a look at the profit. For 1997 the profit forecast is \$31.4 ml from which profit taxes make up \$2.1 ml. This represents 6.7% of the balance profit. If, as a result of our stipulations, the profit of the station goes up by \$12.05 ml, and accounts for \$43.05 ml, the profit tax could be compound as $(\$43.05 \text{ ml} * 6.7\%) / 100\% = \2.88 ml . the percentage of 6.7% should be negotiated with the state since, in essence, the profit does not increase. Structural changes in the operation cost may be a constructive approach.

After subtracting the amount of the profit tax from the balance profit \$43.05 ml, we would have the profit \$40.17 ml. \$29.3 ml the enterprise is still going to allocate for additional payments for worker and other residents of Slavutich such as federal employees. This amount represents \$29.3 ml. So, the enterprise will still have \$10.87 ml for providing social services. Moreover, we do not take indirect labor cost out of the operation cost. So, the workers at the maintenance department will be still paid by the station. The amount \$10.87 ml could be directed to a planned transition fund of the city. Certainly, this sum is twice as low comparing with what the city had in previous years. These funds can be used for preliminary measures on lowering operating costs of housing (such as energy efficiency) before starting privatization of

social services.

The purpose of such rough calculations is to show that excluding the cost of materials and services (we keep labor and materials costs separately) provided directly to the city from the operation cost, the CNPP is may be able to finance a portion (about 50%) of social services in the city.

Finance of the City.

As any local government in Ukraine, the city is responsible for providing communal services such as heating, water and sewerage, gas and electricity, transportation and housing. The local government and state enterprises provide education, health, and sanitation services. Since independence, the local government has also assumed an increasing role in providing the social safety net.

Communal services are provided by municipal enterprises, which are unincorporated quasi autonomous units with separate budgets from the local government. Municipal enterprises providing services in the city include water and sewerage (Vodokanal), heating (Kommunenergo), garbage and sanitation (Spetstrans), and bus transport (Autotrans), and housing maintenance (Zchecks), although the city of Slavutich represents a unique case where almost all Zchecks are owned by the CNPP. Communal services are heavily subsidized. The rate of cost recovery for these services averages 12 percent. The city of Slavutich is subsidized primarily from the funds of the CNPP (95%). These subsidies exert considerable pressure on the local budget, encourage over consumption, and make the city totally dependable on the station well-being.

The degree of subsidization varies among enterprises providing services. The largest subsidies appear to go to heating and hot water (20%). There is considerable cross-subsidization from enterprises to households. The responsibility for rate setting among the oblast, the city's government and its subordinate public utility enterprises varies. The local government regulates the rates to be charged to non-household users while household rates are controlled at the central government. The pricing of public services is complicated by the fact that all levels of government can give exemptions and preferential treatment to certain public utility customers without directly compensating the utility enterprise for the lost revenue.

The City's Budget

The city's government receives revenues from tax sharing and from transfers from the central government and from own-source revenues including local taxes, fees and charges. The budgetary system of the city, as elsewhere in Ukraine, distinguish between "fixed" and "regulating" revenues.

Fixed revenues are assigned directly to the local government (100%) and include drivers' license fees, motor vehicle taxes , various fines (a fixed annual charge), payment for water used by industries, and tax on local enterprise profits. The city collects all of the company profit tax levied on locally owned enterprises. In 1995 the local government received company profit taxes from 12 main enterprises in the city. However, the share for the local budget is set at the national level. This tax has the same structure as the national corporate tax on state enterprises whose proceeds are shared equally by the central and oblast governments.

Regulating taxes are all shared on a derivation basis, that is, according to the total collection in the city's jurisdiction. For the personal income tax, derivation relates to the place of work rather than residence. Regulating revenues include VAT (this is set at a uniform rate of 28%). In 1995 the city's government receives 10% of VAT collected in the area of its jurisdiction. The company profit tax is set at flat rate of 18% on both state enterprises and communal enterprises. This tax is levied on both profits (net income) and payroll. In 1995 the city's government received 10% of the company profit taxes collected in the city, 60% went to the oblast budget, the rest was assigned to the national budget. From excise taxes the city got 20%, the rest went to the national budget, and the personal income taxes were broken down as follows: the central government 50%, the oblast budget 45%, and the city 5%.

The total budget of the City is \$1.6 ml provided as shares from the oblast's and the national budget. The expenses are broken down as follows: social protection - 3.6%; health care - about 2%; law enforcement - 1.3%, communal services - 0.38%; education - 46%, salaries for administration of the City 9.7%, and cultural events and sports - 28.2%, the rest goes to other expenditures

The city's government continues to be a major deliverer of social services, including health, education (46% of the local budget), and cultural and sport activities (28.2%). The CNPP provides major services in housing and amenity, and additional services are provided in housing, health, education, infrastructure, and culture.

Health

At this stage this is not clear whether the CNPP has established and funded a primary health care facility in the city, and supplies free medicine for it. This clinic provides health care for the entire population of the city. Health care expenditures from the local budget amount for \$27.42 thousands or 1.7% from the total sum of \$1.6 ml provided by the city. Besides this, additional payments are provided through the Chernobyl Fund for free medicine on prescriptions, dental care and measures on improving health. This amount makes up \$189 thousands or 5.4 % of the total amount from the Chernobyl Fund. This figure is almost seven times higher as the amount for health care from the local budget.

In addition, the CNPP provides additional payments to doctors and medicine workers as a portion of their basic salaries, plus payments for medical equipment for the clinic and the hospital.

Education

Secondary schools in the city are under responsibility of the local department of education with overall supervision from the Ministry of Education. The CNPP pays extra salaries to the teachers and administration staff..

All kindergartens are financed by the CNPP, and the station pays for communal services, salaries to teachers, provides maintenance, capital construction, and minor repairs. All staff is on payroll of the CNPP .

Concluding remarks

There are two potential mechanisms for the continued funding of the present or a reduced level of service.

First, in the long term, accessing alternative sources of finance in the national budget. The Presidential decree on restructuring states that the basic method of to be applied to diversiture of social assets is the transfer of the assets to local Government. The identity of the deliverer of the service will define to a great extent the capacity to access alternatives sources of direct finance. For instance, the oblast budget will not support kindergartens if they are owned and supported by CNPP. This alternative source of finance should accrue to the deliverer of the service. Therefore, the deliverer of the services has to be defined and the alternative sources of direct finance identified.

Second, in the short term the funding of the costs of certain assets and services by an extra budgetary allocation. In that cost recovery through fees, privatization, tax base can only realistically be obtained after transfer and then only gradually the local city administration will need to be provided with financial support for the operation and maintenance of these assets. The source of this extra budgetary allocation will have to be developed by the national Government of Ukraine in conjunction with the City Authority.

5. Transfer of CNPP Assets

The City is at present preparing a plan to transfer some or all of the social services to the City authority from CNPP. This is in response to the uncertainty over the provision in the future of these services by CNPP, as well as in fulfillment of the Government of Ukraine's policy to transfer social assets from enterprises to the appropriate organization. The type of service to be transferred and the source of funding have still to be defined.

Assets as property

Once the allocation of services has been agreed, one needs to consider who will own the asset which provides this service. For instance the kindergarten school building.

There are a number of separate issues

- who owns what at present , what rights are given to whom
- who should own what taking into account who will operate it
- the short term distribution of the property during the transition period
- the allocation of the resources received from the privatisation of state property Management of the services in the local government arena

Once a new distribution of functions has been agreed new management mechanisms must be put in place. Some capacity to management twill already be present others will not.

- For centralised functions such as the provision of education the Ministries will mange the services through local departments in the authority. Slavutich already has these so they will net need to be created just strengthened.
- The functions newly defined as for local Government will have to be managed. This will necessitate an expanded local government bureaucracy and a strengthening of the management capacity in the town hall.

The workforce

The CNPP manages and delivers a majority of the services for the City through a large directly employed workforce. The City council and administration employ only 5% of the service personnel which totals 5589 persons. This means that about 45% of employees are not related directly to the production activities. Kindergartens and housing, if there is a direct transfer to the city of the personnel as well as the assets, can be absorbed fairly readily into the City structure, provided that a stable sources of finance is identified. The City would need strengthening of its the managerial capacity to operate the social assets now operated by the CNPP directly.

The workers and their families are not the only ones to benefit from the services. The entire population of Slavutich has access to these services for little or no payment or fee. The supply of these welfare services to the population of Slavutich causes a considerable amount of confusion as to who is responsible for the and benefits from these services. CNPP understand the provision of these services as part of the work contract and yet at the same time a charitable gift to its loyal workforce. These are essentially free gifts to the non CNPP population and a supplement to the normal salary of the CNPP staff.

Mechanisms of Transfer

For different kinds of social assets there could be suggested various mechanisms and recommendation on transferring them to the municipality. In the attached table there are some possibilities for the services in Slavutich. This table does not attempt to provide a complete list of possibilities but seeks to indicate a number of options to be considered to facilitate the learning from pilot projects as the transfer progresses.

Ideas

Unlike the situation with housing the current privatization program in Ukraine does not assume any steps towards privatization of kindergartens. In this case, given a gradual process of transferring, we could suggest to start from those kindergartens which have special profiles. Two of them have general health care type, other three are for children with speech deficiency, bronchi and pulmonary diseases and for disabled children. In our view, all of them can directly transferred to the Ministry of Health for its full financial responsibilities. For the short run, for the reasons of easing a financial burden for the National budget, some expenditures can be paid by international health organizations such as WHO (which has an office in the city), the Red Cross, and also the Chernobyl Children Fund (USA).

Before transferring other kindergartens to the municipality, there should be estimated the operating costs of those facilities, and recommendation on rationalization of operation (meaning measures to lower the operating costs) should be developed. By now, we do not know how many places are in the kindergartens, what is their capacity and actual attendance.

One of the kindergartens of a general type of specialization can be suggested to turn into a sanitarium for providing health services to the public for fees.

Regarding secondary schools in the city, there could be proposed that extra salaries for teachers will be still provided by the CNPP since the enterprise will not be closed immediately. For the long run, all financial responsibilities should be taken by the Ministry of education.

The most complicated question is the provision of housing stock with maintenance services. There is obvious that almost all apartments should be privatized and the residents should pay for the costs of services provided. State enterprises (the CNPP

is not an exception) currently receive tax credits and exemptions that largely offset the operating costs for housing. These tax breaks come at the expense of tax revenues, primarily at the local level. Generally, the station is allowed to take a direct credit tax for expenditures on housing and other social assets in an amount up to 1.5% of its turnover. This tax credit comes entirely at the expense of local tax revenues. Additional tax deductions are available when calculating the enterprise's profit tax liability, revenues from which are split between the federal and oblast's levels. Thus the divestiture process will have the effect of raising local budgetary expenditures of the city, even it will be partly offset by increases in its tax revenues. Although the effect on average net cost to the local government of the divestiture process will be approximately on the order of only 3-5% of current total local budgetary expenditures.

The costliest part of expenditures for communal services is energy prices. Operating costs are largely driven by utility costs, and housing sector in the city (as well as everywhere in Ukraine) is several times as energy-intensive as in Europe and the US. At the time being, when the station runs housing in the city, there could be proposed to cover expenditures for repairing leaks, adding insulation, and installing simple pumps and other devices improving energy efficiency for residential sector. Within buildings, the installation of radiator shunts and valves, weatherproofing of windows, and adding of insulation in ceilings are all investments with very rapid payback periods. On the other hand, for such a big enterprise as the CNPP is, these expenditures do not represent a big problem. Thus, we could initially reduce the operating cost before starting the process of privatization.

Another consideration regarding privatization of the maintenance department is a special status of enterprises run by liquidators for providing services to liquidators and evacuees. Such private enterprises have some tax breaks as well as interest free loans for up-front investments.

One more option for reducing the operating cost is creation communal cooperatives by private owners. Such cooperatives will provide buildings maintenance at lower rates than if these services were paid by the owners.

Attention to physical maintenance must increase if the serious deterioration of the housing stock is to be reserved. Preliminary activities and studies can be proposed on privatization of a part of the station's maintenance department (initial results on this in Russia were quite positive). Thus we can start the process of creating competitive markets for maintenance. Private housing maintenance organizations are able to a much higher level of services for the same or lower cost as government units, especially when they operate in the competitive environment. Because of the backlog of maintenance required, there is probably little scope of reducing expenditures on physical maintenance, but a competitive private market in maintenance services would at least help improve conditions at the current (or slightly higher) level of expenditures.

6. Recommendations

The apparent uncertainty concerning CNPP's ability to support the communal and social services requires that measures are taken to address this situation immediately.

To prepare a plan for the City of Slavutich within the immediate period detailing and agreeing future sources of income and priority expenditures for the city in agreement with all Central Government bodies.

- Given the fact that payments for communal services are partly included into operating costs of the station, start to work with the CNPP's accounting department to take measures on excluding expenditures for materials and services used for providing housing maintenance, capital construction, and minor repairs in the city.
- start negotiations with State Tax Inspectorate on imposing the same rate of profit taxes for the CNPP for a transition period despite an increased profit.
- The purpose of this recommendation is to demonstrate that excluding the cost of materials and services, provided directly to the city, from the operation cost of the station, the CNPP would still be able to finance a portion (about 50%) of social services in the city.
- deposit released extra funds into a Transition Fund for financing efficiency measures which could lower the operating cost of housing before starting a program on privatization

The city to develop a of a feasibility study and plan to effectively transfer of the social assets agreed by the CNPP, central Government and the City authorities.

Assistance to the City authority and CNPP department of Communal services to develop a mechanisms for effective transfer.

Transfer of social assets

The social assets	management of service at present	financing of service at present	ownership of the asset at present	transfer options
kindergartens	CNPP	CNPP both capital operation, salaries, and maintenance	Goskomstom	public administration. private operators, NGOs, voluntary organizations, self management
Secondary Schools	local department of education, Ministry of Education	Ministry of Education (capital and operation and maintenance), extra salaries from the CNPP.	Ministry of Education	provide ex gratia payment to teachers from the private sector
The school of arts	Local department of Culture	local department of culture and the national budget. The CNPP provides extra salaries to teachers		private sponsors, NGOs, the City Council
Clinics Hospitals	local department of health, and Ministry of Health	Ministry of Health, and extra salaries are provided by the CNPP	Ministry of Health	NGOs, private conventioned centers, volunteers, public administration
Housing	CNPP	CNPP	CNPP and 30 % privatised apartments and houses	public agencies, local administration

				private, NGOs, consortia, family business
Centre of Culture and information, within this Center, Slavutich TV and radio	CNPP	CNPP	CNPP	the City Council
Transportation department at the CNPP, and the local department of transport	local government, and CNPP	local government, and CNPP	mixed ownership (state and private)	joint stock company with share of the City Council
Communal utilities	local government	a minor part from the local budget, mainly by the CNPP	Ministry of Communal Services	private operators, public/private consortia, cooperatives
Legal and saving bank services	private sector, and local department of finance	private sector and the state	private and state sectors	rationalization of operation

Annex 1

Responsibility mapping for the City of Slavutich							
Type of service provided	specific type of Service provided	Location and details	clients group or individuals	management of service	financing of service	ownership of asset	Persons employed and employer
Education	pre-school (kindergarten)	9	5 specialised medical kindergartens for children with special needs < age 7	Slavutich	CNPP both capital operation, salaries, and maintenance	Goskomstom	983 CNPP staff (37 % of the group employed indirectly by CNPP)
	Secondary School	3	school age children 8 to 17 years	local department of education, Department of Ministry Education	Ministry of Education (capital and operation and maintenance), extra salaries from the CNPP.	Ministry of Education	276 teachers
	Specialist	school of arts	tertiary education	Local department of Culture	local department of culture and the		

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					national budget. The CNPP provides extra salaries to teachers			
Health Care	Clinics Hospitals	1 clinic 1 hospital medical center at the CNPP	workers of CNPP and population of Slavutich	local department of health, and Ministry of Health	Ministry of Health, and extra salaries are provided by the CNPP	Ministry of Health	89 persons are employed directly by the CNPP in medical centre support services	
Housing Hostels/ apartments / housing	Maintenance and operation	1. No of apartments 7238 2. No of single dwellings 432 1. # of hostels ? (20 % of 16000 persons live in hostels Thus 4000 persons.	Workers and population of Slavutich	CNPP	CNPP	CNPP and 30 % privatised apartments and houses	1. Refurbishment workshop 58 1. houses section 38 1. housing and communal services department 73 2. Block housing	

		2. No of households 8530 3. 30% of private owned.					department 1,2,3,4, is 455 persons	
Sports and Leisure	Sports stadium	1						
	Centre of Culture and information, within this Center, Slavutich TV and radio	1	population of Slavutich	CNPP	CNPP	CNPP	411 indirectly employed by CNPP	
Transport	Transportation department at the CNPP, and the local department of transport	Joint-stock company "ATAS" located in Slavutich	CNPP's workers, and population of Slavutich	local government, and CNPP	local government, and CNPP	mixed ownership (state and private)	1163 persons employed in associated company	
Strategic Planning and management	communal utilities	Slavutich	total population of Slavutich	local government	a minor part from the local budget,	Ministry of Communal Services	280	

of communal services sanitation, sewage electricity,)			and CNPP workers		mainly by the CNPP			
Enterprise support services	legal and saving bank services	3 commercial banks and 1 state bank	population of Slavutich	private sector, and local department of finance	private sector and the state	private and state sectors		
Protective services (law and order)	militia police							
Registration and licencing	Business, consumer, shop etc		Population, business	City	City		280 (percentage of this)	
Facility service	gas, water, heating	Slavutich	Population	CNPP	CNPP	CNPP		
Amenity service	roads street lighting	Slavutich	population	CNPP and City	CNPP	CNPP		

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Appendix 16.

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ПРОЕКТ

ПРОМЕЖУТОЧНОГО ПЛАНА ДЕЙСТВИЙ ПО СОЦИАЛЬНЫМ ПРОБЛЕМАМ, СВЯЗАННЫМ С ЧЕРНОБЫЛЬСКОЙ АЭС И Г. СЛАВУТИЧЕМ

(первая версия)

ПОДГОТОВЛЕННЫЙ

СОВМЕСТНОЙ РАБОЧЕЙ ГРУППОЙ ЕС-УКРАИНЫ-США

ИЮНЬ 1996

Список приложений

1. Меморандум о взаимопонимании между правительствами стран "большой семерки" и Комиссией Европейского сообщества и правительством Украины относительно закрытия Чернобыльской АЭС.
2. Проект технического задания совместного проекта ЕС-УКРАИНЫ-США по социальному влиянию закрытия ЧАЭС (17 октября 1995 г.)
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14. Список членов объединенного координационного комитета. Госкоматом.
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ПРОМЕЖУТОЧНЫЙ ПЛАН ДЕЙСТВИЙ

Краткое содержание

Документ состоит из трех основных частей:

Часть 1: Основания проекта и дополнения к действиям, которые были приняты под эгидой совместного проекта ЕС-Украина-США по социальным проблемам ЧАЭС и Славутича;

Часть 2: Краткое описание промежуточных данных, полученных совместной рабочей группой, и направления для окончательного Плана Действий;

Часть 3: Описание основных положений Промежуточного Плана Действий (IAP), рекомендации, адресованные социальным последствиям в Чернобыле и Славутиче в контексте Меморандума "большой семерки" и Украины о закрытии ЧАЭС.

1. ОСНОВАНИЯ ДЛЯ СОВМЕСТНОГО ПРОЕКТА ЕС-УКРАИНА-США

С апреля 1986года, когда произошла авария на 4-блоке ЧАЭС, существуют растущие опасения Международного Сообщества о возможности другой аварии на реакторах типа РБМК, находящихся как в Украине, так и в других местах бывшего Советского Союза. ЧАЭС стала фокусом мировой тревоги, хотя известно, что другие серьезные, но меньшие по масштабам инциденты, случались в других местах. В последние годы привлекла к себе внимание возможность дальнейшего радиоактивного загрязнения, которое может произойти в результате серьезных ошибок в конструкции массивного саркофага, построенного вокруг четвертого блока ЧАЭС сразу после аварии в 1986 году. В последние годы проблема ядерной безопасности в целом и ситуация в Чернобыле, были предметом повышенного интереса среди стран G-7, после чего последовали незамедлительные переговоры между правительством Украины и странами G-7, приведшие к предложениям досрочно закрыть станцию к 2000 году.

20 декабря 1995 года было достигнуто соглашение в Оттаве между правительством Украины и правительствами стран G-7, а также комиссией Европейских стран о закрытии ЧАЭС к 2000 году. В этом соглашении подчеркивалось, что досрочное закрытие ЧАЭС будет иметь негативные экономические и социальные последствия для Украины, а также была обозначена всеохватывающая программа для поддержки закрытия ЧАЭС. В условиях соглашения было оговорено, что Европейские комиссии и Соединенные Штаты будут помогать Правительству Украины в разработке Плана Действий по социальным последствиям закрытия до 2000 года. Предвидя необходимость достижения соглашения о методике действий, представители Европейского союза и США подготовили Техническое задание (TOR), в котором обозначена схема действий для помощи Правительству Украины в подготовке Плана Действий. В октябре 1995, Техническое задание (TOR) было передано Правительству Украины в виде проекта для рассмотрения и комментариев. 31 мая 1996, Техническое задание было одобрено Госкоматомом под эгидой Президентской комиссии по комплексному решению проблем ЧАЭС (приложения 1,2,3).

1.A ТЕХНИЧЕСКОЕ ЗАДАНИЕ (TOR)

Техническое задание включает в себя цели проекта по развитию Плана действий для смягчения основных социальных последствий закрытия ЧАЭС. В первую очередь проект будет заниматься вопросами социального влияния закрытия станции на людей, на местные и региональные рынки труда. Основное внимание уделяется работающим на ЧАЭС и возможностям их досрочного выхода на пенсию, переподготовки и перехода на другие места работы. Существующая трудовая и социальная схемы защиты будут проанализированы для понимания потенциала создания рабочих мест, альтернативных экономических действий и возможностей перемещения рабочей силы.

Важным фактором в рассмотрении социальных проблем работников ЧАЭС и Славутича является предполагаемая необходимость в рабочей силе для вывода ЧАЭС из эксплуатации и для обращения с ядерными отходами, а также возможные работы по реконструкции "Саркофага" над 4 блоком.

1.В. ОСНОВНЫЕ ПОЛОЖЕНИЯ ПРОМЕЖУТОЧНОГО ПЛАНА ДЕЙСТВИЙ

В апреле 1996 г. на саммите "большой семерки" по ядерной безопасности в Москве Президент Кучма вновь подтвердил обязательства украинского правительства по соглашению "большой семерки" в 1995 г. Он взял обязательство вывести 1-й блок ЧАЭС из эксплуатации к концу 1996 г. Это заявление было в последствии повторено Министром окружающей среды г-ном Ю.Костенко на встрече за Круглым столом в Киеве 22 апреля 1996 г.

На встрече Рабочей группы ЕС-Украины-США 6 мая 1996 г. была представлена неофициальная информация о том, что если перезагрузка 1-го реактора не будет обеспечена топливом в ближайшем будущем, существует вероятность того, что возможно блок будет остановлен 25 июня 1996 г. Принимая во внимание приближение сроков закрытия станции, совместная рабочая группа переориентировалась на развитие Промежуточного плана, который соответствовал бы сложившейся ситуации. Первоначальный план должен был разрабатываться для подготовки мероприятий, которые проводились бы в течение нескольких лет, но сложившаяся ситуация требует того, чтобы рабочая группа сосредоточила внимание на Промежуточном плане с целью эффективно повлиять на психологическое состояние работников ЧАЭС и населения Славутича, и возможность потери городом финансовой поддержки. В связи с этим необходимо сконцентрироваться на вопросах безопасности во время досрочного закрытия ЧАЭС. Может потребоваться дополнительная сертификация безопасности.

1.С. ПЛАНИРОВАНИЕ

Существенная работа была проведена для определения существующей социально-экономической ситуации на местном уровне. Начиная с декабря 1995 г. было проведено несколько семинаров в Славутиче и Киеве для достижения соглашений по широкому спектру вопросов, включая процесс сбора данных. Руководство ЧАЭС и Славутича, наряду с службой занятости ЕС ТАСИС и сотрудниками ЮНЕСКО, участвовали в сборе данных. Информация по данным мероприятиям была представлена на семинаре в г.Славутиче в начале мая.

Было определено, что будет собрана полная информация относительно жителей г. Славутич, потенциале рабочей силы ЧАЭС, существующей деловой активности в регионе, бюджету и финансам города, а также механизмах предоставления социальных услуг жителям города. В ходе семинаров по данным вопросам, рабочая группа также ознакомилась с

существующим законодательством относительно развития коммерческих предприятий в Украине в плане применения его к региону г. Славутич.

Было предпринято усилие установить рабочие взаимоотношения сотрудничества между всеми сторонами, а также создать ядро группы из местных экспертов, которые смогли бы обеспечить руководство на стадии реализации плана. Было достигнуто соглашение с Международной организацией труда в том, что она обеспечит проведение учебной программы для лиц, отобранных ЧАЭС, Славутичем и правительственными органами Украины. Учебный курс предназначен для подготовки украинских кадров в таких областях как переподготовка, управление бизнесом, адаптация существующих ресурсов к новым условиям развития предприятия, а также нацелены на установление контактов с другими городами Европейского союза, которые столкнулись с такими же экономическими проблемами.

Кроме того были проведены переговоры с руководством Международного научно-исследовательского центра, который будет основан в Славутиче, а также делегацией ЕС ТАСИС и агенством технической помощи США с целью реализации потенциальной экономической деятельности, которая может быть осуществлена согласно планам этих организаций, в том числе по проектам, которые могут явиться результатом других инициатив в связи с энергетическими проектами согласно МОВ между "большой семеркой" и Украиной.

Предварительный анализ и обсуждение собранных данных составляют основу ряда рекомендаций, представленных в данном Промежуточном плане действий. Однако, отсутствует информация относительно программ и планов центрального правительства. Особенное внимание уделяется стратегии или плану с учетом эксплуатации и постепенного закрытия ЧАЭС в течение следующих 4-х лет. В следующие несколько месяцев путем дискуссий и обмена информацией в рамках окончательного Плана действий может быть разработан общий перечень рекомендаций.

2. ОБОБЩЕНИЕ ДАННЫХ ПО СОЦИАЛЬНЫМ ПРОБЛЕМАМ ЧАЭС И г. СЛАВУТИЧА.

2.А. ПРОБЛЕМЫ ЧЕЛОВЕЧЕСКИХ РЕСУРСОВ.

Проект промежуточных рекомендаций для смягчения существующих социальных проблем в связи с закрытием Чернобыльской АЭС был разработан в связи с необходимостью решить одну наиболее важную проблему:

- необходимость обеспечить постоянное соблюдение стандартов безопасности на ЧАЭС.

Для того, чтобы обеспечить поддержание стандартов безопасности рекомендации были сконцентрированы на разработке схемы деятельности, которая сможет продемонстрировать работникам ЧАЭС и населению Славутича наличие альтернативных возможностей трудоустройства и возможность остаться в Славутиче, если они того пожелают.

Средства, с помощью которых в ближайшее время можно будет обеспечить работникам ЧАЭС и населению Славутича эти альтернативы трудоустройства, следующие:

- связь социального вопроса с другими основными компонентами Меморандума о взаимопонимании (МОВ), в частности запланированными действиями, связанными с обращением с отходами, фазой остановки, проектами, касающимися 4 энергоблока, и энергосбережения;
- обучение и переподготовка, связанные с другими компонентами МОВ;
- развитие предприятий и предпочтительные механизмы, связанные с другими компонентами МОВ, для обеспечения максимального участия местного рынка предприятий и труда в запланированных проектах; и
- информационная кампания с намерением привлечения к этим планам работников ЧАЭС и население.

На следующих страницах дается анализ данных, полученных рабочей группой по проблемам человеческих ресурсов и по другим проблемам, связанным с вышеназванным.

2.А.1. СОКРАЩЕНИЕ ВОЗМОЖНОСТЕЙ ЗАНЯТОСТИ НА ЧАЭС В 1996 Г.

Чернобыльская атомная электростанция (ЧАЭС) производит электроэнергию с 1977 г. Между 1977 г. и апрелем 1986 г. 4 реактора ЧАЭС произвели около 150 млрд. кВт/ч электроэнергии. После аварии, с октября 1986 г. по 1995 г., ЧАЭС произвела около 127 млрд. кВт/ч

электроэнергии, при том, что 4 блок, а с октября 1991 г. и 2 блок не работали. За прошлые годы (1993-1995 г.г.) ЧАЭС в среднем производила около 11 млрд. кВт/ч электроэнергии в год.

Фактически ЧАЭС выполняет многофункциональную роль со времени аварии на 4 блоке. Она является производителем электроэнергии в составе Госкоматома, правительственного органа, который владеет и управляет ядерной энергетикой Украины. Она является организацией, обеспечивающей коммунальные службы Славутича, города построенного для проживания сотрудников станции. Она также является организацией, обеспечивающей техническое обслуживание 4 блока и его "Саркофага".

Правительство Украины приняло решение закрыть реактор 1 в 1996 г. Согласно информации, полученной с ЧАЭС, это может случиться уже в июне. Этот реактор начал работать в 1977 г. За последние несколько лет реакторы 1 и 3 показали высокую производительность. Согласно отчетам ЕС ТАСИС, реактор 1 работает на 80% его мощности.

Рабочая группа не обладает подробными цифрами относительно рабочей силы по каждому реактору в отдельности и другим службам ЧАЭС, однако ЧАЭС предоставила подробную информацию относительно общего рабочего потенциала станции.

В настоящее время персонал ЧАЭС насчитывает около 6500 чел. В основном это высокообразованные мужчины, моложе 45 лет. Подавляющее большинство (83%) всех работающих мужчин и женщин "ликвидаторы" или эвакуированные из Чернобыля. (Этот статус дает им определенные права и льготы по украинскому законодательству). ЧАЭС классифицирует свой персонал на следующие подгруппы: руководители (14%), инженеры (20%), технический персонал (64%) и непрофессиональные работники (1%). Более 5000 сотрудников живет в Славутиче.

В настоящее время этот персонал эксплуатирует 2 реактора (реакторы 1 и 3) и поддерживает безопасность реактора 2. Также проводится постоянная работа по обслуживанию зоны "Саркофага". В настоящее время не ясно будет ли снова введен в эксплуатацию блок 2. Поэтому, возможно, что к концу 1996 г. персонал будет занят только на реакторе 3 и намного в меньшей степени будет занят в поддержании безопасности на реакторах 1 и 2. Рабочая нагрузка в таких масштабах может занять менее, чем 50% существующего персонала. На данный момент на ЧАЭС не готов подробный план потребности в рабочей силе в случае сокращенного варианта эксплуатации. При этом варианте необходим план, который бы позволил сохранить хорошо подготовленных рабочих, необходимых для постоянного поддержания безопасности реакторов, находящихся и выведенных из эксплуатации, а также для переподготовки тех рабочих, которые не могут быть полностью заняты на производстве.

Реструктуризация украинского энергетического сектора может также повлиять на состояние коллектива ЧАЭС. Был предложен план

объединить ядерные предприятия Украины в единое предприятие, Энергоатом. Права и выгоды персонала ЧАЭС при осуществлении этого плана не определены. Этот вопрос может быть разработан в окончательном Плане действий после обсуждения его с Госкоматомом.

2.А.2. КРУГ ПРОБЛЕМ, СПЕЦИФИЧНЫХ ДЛЯ Г. СЛАВУТИЧ

Г. Славутич был спроектирован специально для персонала Чернобыльской станции и их семей, а также эвакуированных из зоны Чернобыля. Славутич был построен после аварии 1986 г. бригадами архитекторов и строителей из семи бывших советских республик. Согласно данным, полученным от руководства города, в Славутиче сегодня живет почти 2 000 его строителей. Население города составляет более 25 000. Из этих жителей - около 8 500 детей младше 16 лет. Славутич - молодой город, если говорить о его населении. Средний возраст жителей Славутича - моложе 30 лет. 1 700 жителей близки к пенсионному возрасту, 55 лет.

Славутич - относительно современный город, где хорошо поставлено содержание жилищного фонда, отличающегося разнообразием. Город расположен в лесистой местности и создается впечатление, что он стоит в парке. Славутич находится вне загрязненной зоны, в 50 км на восток от ЧАЭС, недалеко от границы с Беларусью, в 50 км на юго-запад от Чернигова. В административном плане город - часть Киевской области. У детей в городе есть, где провести время - много игровых площадок, спортивных залов и плавательных бассейнов. 8 530 семей Славутича живут в 5 464 квартирах и 432 отдельных коттеджах. Более 18 % семей владеют своими квартирами, что соответствует средним цифрам по Украине.

Большинство населения - около 16 000 - работает в различных областях национальной экономике. Работающее население Славутича, в основном, занято в производственной сфере, и большинство работает на ЧАЭС. В 1995 г. около 5 100 рабочих были заняты непосредственно на станции. Более 1 600 - женщины, преимущественно в возрасте примерно от 26 до 45 лет. Еще 3 634 жителя г. Славутича опосредованно заняты на ЧАЭС в непромышленной и сервисной службах таких, как детские сады, ОРС, МЖКХ, система теплосетей, культурные/информационные службы и медицинский центр. Около 2 000 жителей занимаются домашним и приусадебным хозяйством. Более 2 000 заняты в торговле (в торговых предприятиях от ЧАЭС, городской торговой сети и частных магазинах), в снабжении оборудованием и предоставлении технических услуг. 1 300 работает в сфере перевозок и связи. Еще 2 000 жителей Славутича работают за пределами города на других предприятиях.

В Славутиче живет 70 % персонала ЧАЭС. Хотя они составляют 1/3 часть занятых в Славутиче, они обеспечивают занятость представителям других профессий: учителям, водителям, медработникам, муниципальным службам, строителям и работникам торговли. Например, согласно информации директора предприятия "АТАСС", он получает 50 % дохода

от ЧАЭС. "АТАСС" предоставляет транспортные услуги и на нем работает около 500 рабочих.

В дополнение к работникам, занимающимся сервисным обслуживанием и живущим и работающим в г. Славутиче, есть 4 827 человек, которые не живут в Славутиче. Согласно данным горисполкома, эти работники имеют зарплату ниже, и работу, не соответствующую образовательному и профессиональному уровню современного персонала ЧАЭС. До 2000 г. каждый год школы г. Славутича будет оканчивать около 500 детей, части из которых тоже будет нужна работа.

Сокращение количества персонала, в случае закрытия I блока, сильно ударит по Славутичу. Это тяжело скажется не только на работниках производственной сферы и их семьях, но и на людях других профессий, работниках сферы услуг и торговли. В некоторых отношениях у этих людей возможно наличие предпринимательских качеств, необходимых для того, чтобы начать новое дело. Дальнейшая работа этих людей необходима, чтобы обеспечить нормальное функционирование городского хозяйства. План поступательного развития города, принимая во внимание естественный прирост населения, должен иметь в виду профессиональные качества имеющихся и ожидаемых трудовых ресурсов во всем их разнообразии. В ближайшем будущем город должен изучить, способны ли будут какие-либо из существующих предприятий расширить свою деловую активность на другие регионы или добавить в перечень предоставляемых услуг услуги более высокого профессионального уровня, требующие более совершенных технологий или операционных систем, работа которые эффективно могли бы задействовать выпускников и персонал ЧАЭС.

2.А.3. ОТСУТСТВИЕ НОВЫХ МЕСТ ТРУДОУСТРОЙСТВА В БЛИЖАЙШЕМ БУДУЩЕМ

Будущее Славутича и трудоустройство для его жителей является проблемой большой важности.

На местном уровне есть намерения решить эти проблемы повышением разнообразия экономической базы региона Славутича для обеспечения более долгосрочного выживания города. В плане потенциала такого повышения разнообразия экономической базы региона Славутича идеальными условиями, что касается открывающихся возможностей, являются результаты МОВ между Украиной и "большой семеркой". Данное соглашение дает основу для привлечения около 3 млрд. долларов иностранных инвестиций для проведения работ в Чернобыле и на Украине. Большое количество рабочих потребуется для снятия ЧАЭС с эксплуатации, реконструкции "саркофага" и долговременного обращения с радиоактивными отходами, а также разработки альтернативных источников энергии. Кроме того, продолжающиеся исследования и работа в зоне отчуждения, проводимые Минчернобылем и другими организациями, подходят для использования рабочего потенциала ЧАЭС, имеющего высокий уровень технической, инженерной и научной подготовки.

Большое количество таких мест трудоустройства, возможно, не понадобится в следующем году. Работы будут на стадии проектирования, конструирования, определения финансирования и планирования, что предшествует началу работ. В настоящее время ЕС ТАСИС и правительство Украины проводят предварительные подсчеты количества и вида предприятий, необходимых в течение 15-летнего периода снятия с эксплуатации. Большая часть данной работы будет осуществляться посредством международного тендера под эгидой ЕБРР. Однако, для закрепления этих мест трудоустройства за персоналом ЧАЭС и жителями Славутича необходимо предпринять в ближайшем будущем ряд действий.

При анализе потенциала новых возможностей трудоустройства для персонала ЧАЭС и жителей Славутича мы рассматривали официальную позицию правительства Украины в отношении роста г.Славутича. Поскольку в этом анализе правительство не принимало прямого участия, мы рассмотрели три сценария будущего Славутича.

Итак **Сценарий 1** предусматривает сохранение настоящего уровня занятости и ежегодный прирост ста рабочих мест путем:

- построения структур для поддержки развития предприятий;
- развития предприятий, которые будут прямо привлечены к внедрению компонентов МОВ, которые относятся к фазе закрытия станции, обращению с отходами и 4 энергоблоку, а также исследованиям, изучению и работам по очистке зоны отчуждения;
- разработки программ энергосбережения, которые могли бы привлечь к участию новые производственные предприятия и предприятия сферы услуг в Славутичском регионе; и
- перепрофилирования рабочей силы для обеспечения максимального использования их потенциала в плане вышеуказанных возможностей и, таким образом, обеспечение им возможности оставаться в Славутиче.

Принимая во внимание тот факт, что до сегодняшнего времени было невозможно выяснить точку зрения центральных государственных властей, возможно осуществление **Сценария 2**. Этот Сценарий может вызвать значительную потерю рабочих мест:

- Славутич сохраняет свой статус чисто города-спальни, в котором проживают работники ЧАЭС и их семьи на протяжении фазы закрытия; и
- разрабатывается программа поэтапного переселения семей из Славутича до тех пор, пока его функция города-спальни не будет нужна, после чего город будет оставлен.

И, наконец, **Сценарий 3** будет предусматривать модель, согласно которой город остается в своих нынешних масштабах. Имеющийся уровень занятости (16000) сохраняется посредством переподготовки и обеспечения занятости в связи с реализацией МОВ, а избыточная рабочая сила постепенно переходит в сферу сервиса Славутича и на другие производства в Киевской или Черниговской областях.

Принимая во внимание то, что на данный момент информация ограничивается только взаимодействием с лицами, действующими на местном уровне, промежуточные рекомендации, которые содержатся в данном плане, относятся к Сценарию 1, а также, в равной мере, к Сценарию 3.

2.А.4 ПСИХОЛОГИЧЕСКИЙ КЛИМАТ В СЕМЬЯХ И ЯДЕРНАЯ БЕЗОПАСНОСТЬ

2.А.4.а Психологические аспекты безопасности Чернобыльской АЭС

Обилие принятых политических решений о судьбе Чернобыльской АЭС, не подкрепленных до настоящего времени конкретными программами и финансовыми обязательствами, дискуссии на тему "быть или не быть" создают неустойчивую психологическую обстановку в коллективе АЭС, отрицательно влияют на безопасность станции. Обсуждая вопрос о психологических аспектах безопасности Чернобыльской АЭС следует принимать во внимание следующее.

Первое. Чернобыльская АЭС построена по проектам, разработанным в 60-х годах, поэтому принципы безопасности, заложенные в основу ее проекта во многом не отвечают современным требованиям. В проекте АЭС не реализованы в полном объеме принципы глубоко эшелонированной защиты, следствием чего является исключительно высокая роль человека в обеспечении безопасности АЭС. В условиях кризиса платежей и развала промышленности, приведших к нестабильной поставке материалов, запасных частей и оборудования безопасность АЭС почти полностью определяется людьми и их психологическим состоянием. Вопрос состоит в том, чтобы сегодня не допустить катастрофического падения морально-психологического климата до уровня за которым последствия для безопасности становятся непредсказуемыми.

Второе. Коллектив специалистов, эксплуатирующих сегодня Чернобыльскую АЭС уникален по истории своего создания и развития. В 1988-89г.г. по решению партийно-государственных органов и тогдашнего руководства станции персонал, не пожелавший сдать квартиры в г.Киеве и переехать в новый г.Славутич был уволен. Таким образом был ликвидирован коллектив, строивший и эксплуатировавший станцию, переживший трагедию 1986 года и восстановивший станцию после аварии. Был ликвидирован коллектив, получивший опыт жизни в экстремальных условиях и доказавший свою способность работать и побеждать в таких условиях. В течении двух лет был сформирован новый коллектив, но уже с иным опытом, с иными жизненными ценностями. Этот коллектив получил в свои руки уже работающую станцию (он ее не строил, не

восстанавливал) и в последующие годы не получил возможности "попробовать" себя в созидании. С 1990 года люди, работающие на станции, стали объектом экспериментов, связанных с закрытием станции. Сначала на национальном уровне (решение 1990 года - закрыть до конца 1995 года; затем решение 1991 года - закрыть до конца 1993 года; и, наконец решение 1993 года - продолжить работу). С 1994 года коллектив стал заложником политических дискуссий "семерки" и Украины по вопросу закрытия Чернобыльской АЭС в обмен на поддержку Западом рыночных реформ в Украине. Эта компания бьет по психологическому состоянию коллектива прежде всего тем, что ведется без какого-либо его участия. Люди являются зрителями на турнире, но понимают, что жертвами станут именно они. Полное непонимание у людей вызывает связывание в один узел проблем политико-экономических и ядерной безопасности. Такая позиция не имеет ничего общего с культурой безопасности. Более того персоналу преподается реальный урок лицемерного отношения к ядерной безопасности. В таких условиях невозможно ожидать формирования психологически устойчивого коллектива, настроенного на длительную работу в неблагоприятных условиях. Очевидно, что приоритеты безопасности очень быстро становятся вторичными для коллектива Чернобыльской АЭС.

Третье. Энергетика - специальность особого рода. Ее тяжело освоить и еще сложнее на протяжении долгих лет постоянно поддерживать необходимый уровень квалификации. Энергетика требует стабильных коллективов, складывающихся годами, базирующихся на жесткой корпоративной дисциплине и доверии людей друг другу. Энергетика, особенно это касается работы операторов, - монотонная работа, продолжающаяся многие годы, внешне не кажущаяся тяжелой, но с постоянным, скрытым от внешних глаз психологическим напряжением. Оперативный персонал, ключевой элемент обеспечения безопасности, по своей подготовке, по опыту работы, по психологическим характеристикам менее всего готов к изменениям и более всего подвержен психологическим стрессам. Энергетическую элиту может заинтересовать работа адекватная по сложности и уважению, поэтому для поддержания работоспособного коллектива, способного гарантировать безопасность ядерной установки необходимы соответствующие мотивация и условия. Эта мотивация в энергетике даже сегодня, в период катастрофически быстрого изменения жизненных ценностей, далеко не всегда связана с материальными и бытовыми условиями жизни. Отсутствие ясной профессиональной перспективы и социальных гарантий ведет к подрыву психологической устойчивости отдельных людей и коллективов в целом и может привести к соответствующим последствиям - безразличию к качеству выполняемой работы, массовому уходу, проявлению всякого рода экстремистских тенденций. В первую очередь все это скажется на безопасности.

Четвертое. Созданные в г.Славутич социальные условия имеют свою притягательность для людей до тех пор пока у людей есть работа или гарантии ее получения. Квартиры и коттеджи, которыми владеют люди в г.Славутич, независимо от того приватизированы они уже или нет, имеют значительное стоимостное выражение. Но потребительская стоимость

данных квартир и коттеджей будет близка нулю, когда остановится основное производство без адекватной замены - в "мертвом" городе квартиры не нужны. Развитая культурная и спортивная жизнь в этом городе также будет жить, пока есть работа, пока есть будущее. С прекращением трудовой деятельности все остановится. Зрелища не заменят хлеб. Специалисты хорошо понимают, что создать в городе адекватное количество рабочих мест будет в высшей степени сложно. Международные и национальные научные центры, о которых много, но пока безпредметно идут дискуссии, во-первых, привлекут только специалистов высокой квалификации и, во-вторых, численный состав этих центров вряд ли превысит одну-две сотни человек. Всякого рода предприятия по переработке отходов, преобразованию объекта "Укрытие" на сегодняшний день более мечты, чем реальность. Таким образом, даже при теоретической внутренней готовности на переквалификацию у большинства людей, работающих на АЭС или связанных с ее работой, нет уверенности в том, что они будут иметь работу после прекращения эксплуатации Чернобыльской АЭС. Следовательно и с этой точки зрения сотрудников Чернобыльской АЭС ожидают серьезные потрясения и говорить в этих условиях о психологической устойчивости отдельных людей и коллективов не приходится, как и о благотворном влиянии этих потрясений на безопасность.

Пятое. В нормально функционирующем обществе поведение человека отличается целенаправленностью, оно уверенно и энергично. Поведением человека управляют фиксированные во времени и пространстве традиции, обычаи, привычки, личные, семейные и корпоративные планы. Отсутствие взвешенного, просчитанного подхода к будущему Чернобыльской АЭС, привели к созданию на АЭС обстановки нестабильности. Станция и коллектив работающих на ней людей стали заложниками политики, что, по-существу, ведет к подрыву психологического баланса, потере жизненных ориентиров и формированию чувства уязвимости. Ситуация усугубляется тем, что ни Чернобыльская АЭС, ни правительственные органы не имеют собственного многовариантного плана действий, в соответствии с которым люди могли бы планировать свое будущее и будущее своих детей. Реакция в данной ситуации, речь идет о реакции как коллектива в целом, так и отдельных его представителей, возможна самая разная - от полной мобилизации на борьбу за свое будущее (независимо от того связано оно с продолжением эксплуатации АЭС или переходом к другой сфере деятельности) или стремительный развал дисциплины и коллектива. Процессы могут проходить настолько быстро, что могут приобрести характер взрыва. Есть основания предполагать, что для нынешнего коллектива второй вариант реакции более реален, поскольку мобилизация возможна вокруг идеи, безусловного лидера, программы действий. Ничего этого у коллектива сегодня нет.

В этой связи руководству Чернобыльской АЭС и правительственным органам можно рекомендовать разработку реалистической стратегии на будущее. Эта стратегия должна быть, прежде всего, направлена на обеспечение социально-экономического благосостояния коллектива АЭС,

обеспечения ядерной и радиационной безопасности вверенных коллективу установок.

2.А.4.в Вопросы информационного обеспечения

Персонал и жители Славутича получают информацию о ЧАЭС из официальных и неофициальных источников. Неофициальная информация, получаемая через контакты в процессе общения между работниками станции и членами их семей и соседями, вероятно является самой распространенной. Однако, в равной степени важны официальные источники информации, существующие в Славутиче.

В настоящее время для информирования персонала ЧАЭС и населения Славутича существует ряд источников:

Выпускаемые непосредственно ЧАЭС ежедневная радиопередача "Импульс", "Новости" (ежедневный информационный листок), "Новости ЧАЭС" (еженежелный выпуск). В Славутиче выпускаются: "Славутич" (ежедневная местная телевизионная станция), "Радио Славутича" (ежедневные передачи), встречи с жителями (редкие встречи в городском кино-концертном зале с мэром и руководством ЧАЭС), "Горячая линия" (телефон доверия), "Огни Славутича" (журнал выходит 4-5 раз в год). Есть ряд других частых видов печатной информации в регионе. Наиболее распространенным источником новостей станции является еженедельные заседания, проводимые руководством ЧАЭС. СМИ приглашаются на эти заседания, на которых руководство отвечает на вопросы. Хотя имеется административное различие между средствами информации ЧАЭС и Славутича, штат всех СМИ получает свою зарплату на ЧАЭС и, в значительной степени, полагается на эту информацию в своих публикациях.

В настоящей ситуации руководство ЧАЭС с неохотой делится информацией, полагая, что она может расстроить персонал и повлиять на безопасность эксплуатации станции. Представляется, что персонал ЧАЭС и население Славутича не имеют четкой картины того, что происходит. Это дает почву многим слухам и, среди всего прочего, как показывают частые телефонные звонки по "телефону доверия", наблюдается высокий уровень неуверенности. До настоящего времени сохраняется вера в то, что станция каким-то образом найдет способ продолжать работать и выплачивать зарплату.

2.В ДРУГИЕ ПРОБЛЕМЫ

2.В.1 ЗАВИСИМОСТЬ СЛАВУТИЧА ОТ ЧАЭС

Данный раздел описывает инфраструктуру города, финансирование коммунальных служб и планы Славутича взять на себя управления социальными фондами, в настоящее время напрямую обеспечиваемыми ЧАЭС.

Славутич в настоящее время является "городом под предприятием", в котором ЧАЭС обеспечивает базу социально-экономической инфраструктуры всего городского хозяйства. Значительная часть служб социального обеспечения поддерживается предприятием (а не городскими властями). Персонал предприятия, члены их семей, которые живут в Славутиче и другие жители города напрямую зависят от ЧАЭС, если не в плане их доходов, то в отношении жилья, образования и других услуг.

Власти города предоставляют в настоящее время лишь ограниченный перечень услуг, надзор за которыми осуществляют национальные министерства, такие как: среднее образование - Министерство образования, милиция - Министерство внутренних дел. ЧАЭС обеспечивает ряд дополнительных льгот, которые дают возможность сохранять более высокие стандарты, чем это обеспечивается на национальном уровне (например большее количество милиции), а также выплачивая доплаты служащим и государственных организаций.

Социальные фонды

Следующие службы полностью или частично обеспечивает городу ЧАЭС:

- жилье - строительство, техническое обслуживание, управление бесплатным и субсидируемым жильем;
- коммунальные услуги - строительство, техническое обслуживание и обеспечение водой, электричеством, теплом и транспортом;
- ремонт дорог, освещение улиц;
- здравоохранение - больница, поликлиника, специальные детские сады с медицинским уклоном;
- образование - детские сады, школа искусств;
- коммерческие предприятия - снабжение пищевыми продуктами и розничная торговля;
- культура и отдых - специальные преподаватели, культурный центр, стадион, спортивные центры.

Наиболее значительные эксплуатационные расходы по фондам социальной сферы связаны с жильем и детскими садами.

Финансирование

Большая часть прямого финансирования социальных затрат идет за счет текущих затрат ЧАЭС. Из общих расходов на услуги в 1995 финансовом году из 39 млн. долларов США, городской бюджет оплатил 1,6 млн. долларов США, Минчернобыль прямыми внебюджетными субсидиями предоставил приблизительно 2,5 млн. долларов США. Сюда не входят прямые выплаты министерств государственным служащим таким, как учителя, медперсонал и милиция.

Поскольку ЧАЭС является государственной собственностью, вышеупомянутые расходы связаны через централизованную бюджетную систему Украины, в которой Министерство финансов через областную

администрацию и соответствующие министерства, такие как Минэнерго, осуществляют бюджетные отчисления в соответствии с нормами оплаты социальных услуг.

ЧАЭС обеспечивает финансирование служб города из доходов и прибылей от эксплуатации. Напрямую станция обеспечивает:

- зарплату 95% служащих коммунальных служб, прямо или косвенно находящихся в трудовых отношениях с ЧАЭС;
- премиальные надбавки служащим государственных организаций, таким как учителя, врачи;
- покрытие расходов на капитальное строительство и обслуживание, например, дорог;
- прямые субсидии населению города через цены на продукты питания, бесплатный городской транспорт.

Поскольку производительность ЧАЭС с закрытием реактора 1 сократится, что вызовет последовательное сокращение возможностей финансирования данных социальных услуг, должны быть обеспечены альтернативные источники прямого финансирования, если есть необходимость поддерживать эти услуги на теперешнем уровне.

Имеется два потенциальных механизма для обеспечения постоянного финансирования услуг на настоящем уровне или в случае их сокращения. Во-первых, обеспечением доступа к источникам долговременного финансирования из национального бюджета. Масштабы доступа к альтернативным источникам прямого финансирования будут определяться тем, кто будет предоставлять конкретный вид услуг. Этот альтернативный источник финансирования должен быть целевым назначением направлен тому, кто обеспечивает предоставление услуг. Поэтому тот, кто предоставляет услуги должен быть определен, наравне с альтернативными источниками прямого финансирования. Во-вторых, краткосрочное покрытие расходов на определенные виды социальных фондов и услуг могут обеспечиваться внебюджетными отчислениями. Источник данных внебюджетных отчислений должны быть разработаны национальным правительством Украины по согласованию с городскими властями.

Некоторые возможные аргументы по альтернативным источникам включены в приложение к данному разделу.

Передача социальных фондов и служб

В настоящее время город готовит план передачи от ЧАЭС некоторых или всех социальных служб властям города. Данные мероприятия осуществляются как реакция на неуверенность в способности станции в будущем обеспечивать эти службы, а также во исполнение политики правительства Украины по передаче социальных фондов предприятиями соответствующим местным организациям. Вид службы, подлежащей передаче, и источник финансирования еще должны быть определены.

ЧАЭС управляет и осуществляет предоставление большинства этих услуг для города через прямой найм большого количества сотрудников. Городской совет и администрация города из 5589 человек нанимает лишь 5%. Детские сады и жилищное хозяйство при прямой передаче городу их персонала и фондов могут быть легко вписаны в структуру города, при условии что будут определены стабильные источники их финансирования. Городу потребуется усиление его управленческой структуры для руководства социальными фондами, в настоящее время управляемыми напрямую ЧАЭС.

Некоторые механизмы передачи социальных фондов предлагаются в приложении к данному разделу.

2.В.2. БУДУЩИЕ РАБОЧИЕ МЕСТА В РЕГИОНЕ Г. СЛАВУТИЧЧА

Во многих регионах ЕС, которые прошли по программам структурной адаптации, были представлены многочисленные механизмы регенерации экономики. Некоторые из них могут быть применены в г. Славутич. Для успешного внедрения этих программ необходима соответствующая законодательная база. Некоторые положения МОВ "большой семерки" и Украины, касающиеся Чернобыля, предполагают предложить возможности трудоустройства, связанные с проектами, которые спонсирует "большая семерка", а также развитие предпринимательства. Будет необходим широкий спектр услуг, которые могли бы быть представлены в Славутиче. Особо важным является действие соответствующих механизмов для обеспечения максимального участия местных фирм. Фирмы, работающие в группах, могли бы обеспечить финансовую поддержку некоторых социальных сфер, например, детских садов, досуга и культуры. Важно то, что присутствует необходимость временной поддержки определенных сфер.

Особо важным является начало процесса эффективного использования имеющихся возможностей для обеспечения участия местных рабочих и коллективов в проектах "большой семерки". Местные органы управления должны будут взять на себя работу по развитию агентств и других услуг для поддержки бизнеса. В дополнение в Славутиче необходимо будет создать центры подготовки и переподготовки кадров. Инструкторы для этих мероприятий должны быть определены в ближайшем будущем.

Специфика рабочих ЧАЭС предполагает развитие услуг и производственных предприятий, которые связаны с другими формами получения энергии. Таким образом для того, чтобы Украине сохранить специалистов, некоторые программы, связанные с энергетическим сектором могли бы управляться из Славутича, используя бывший состав ЧАЭС. Это будет соответствовать программам международного исследовательского центра.

Многие концепции экономического развития Славутича, новых форм занятости для рабочих ЧАЭС, были предложены специалистами Национальной академии наук и Национальным советом по анализу

трудовых ресурсов. Эти схемы должны быть получены для определения их эффективности в условиях г. Славутич.

Городская администрация хочет создать имидж экологически чистой зоны в Славутиче (путем участия в программе ВОЗ "Чистые города"). Соответствующие консультативные фирмы можно создать в Славутиче, используя сотрудников ЧАЭС. Такие сферы, как телеработы или телеконсультации могли бы быть успешно развиты.

Реструктуризация коммунальных услуг и возможностей для образования новых предприятий будут способствовать развитию микропредприятий и самозанятости. Технические консультации, развитие программного обеспечения, небольшие ремонтные фирмы, управление детскими садами, услуги по маркетингу для предприятий, печатная отрасль, бухгалтерия и учет - это одни из многих возникающих возможностей. Специфика профессий рабочих Славутича необходима для разработки учебных и переподготовочных центров, необходимых для создания этих возможностей. Детальные проспекты рабочих мест, созданные различными компаниями, и схемы экономического развития будут представлены в окончательном Плане действий.

2.В.3. СОЦИАЛЬНАЯ ЗАЩИТА

Существует несколько социальных программ для людей оставшихся без работы. Персонал ЧАЭС, который может остаться без работы, имеет возможность использовать большинство из них. Эти программы включают в себя выходное пособие, определенное трудовым законодательством Украины, пособие по безработице, переподготовка, выход на пенсию и пенсионные льготы. В дополнение существуют профсоюзные контрактные соглашения, которые обуславливают условия и льготы для работающих на ЧАЭС.

Многие работники ЧАЭС и Славутича, имеющие статус "ликвидаторов", имеют право на дополнительные социальные льготы. Эти льготы включают в себя выплаты специальных пенсий, связанных со статусом "ликвидаторов", а также здравоохранение, приватизацию жилья и обеспечение доплаты на питание.

Предварительный анализ рабочей силы и рабочего населения г.Славутич показывает, что небольшой процент рабочей силы достигнет пенсионного возраста в течение следующих 4-х лет. Поэтому много рабочих будут зависеть от выходного пособия и от пособия по безработице, срок выплаты которых часто ограничен.

Разумеется, что в данное время уже имеются многие элементы системы социальной защиты. Однако, непонятна адекватность этих программ в существующей ситуации особенно в случаях больших по масштабам увольнений. Полученные данные и рекомендации, связанные со схемами социальной защиты, будут предоставлены работникам ЧАЭС и другим оставшимся без работы, в окончательном Плане действий.

2.В.4. ЭКОНОМИЧЕСКОЕ РАЗВИТИЕ СЛАВУТИЧА.

В последнее время экономика Славутича практически полностью зависит от прибылей, получаемых от ЧАЭС. Исследования показывают, что в Славутиче существует ряд негосударственных предприятий, находящихся на начальном этапе своего развития. В основном эти предприятия занимаются торговлей, однако, есть и такие, которые занимаются обслуживанием и производством. Положение Меморандума, связанное с выведением станции с эксплуатации, 4 блоком и обращением с отходами предлагает возможности развития широкого спектра предприятий по обслуживанию. Эти предприятия могут позволить активное использование технических возможностей и высокой квалификации населения Славутича и работников ЧАЭС. В то же время, когда важнейший сектор экономики Украины по энергосбережению расширяется, существуют возможности для обслуживания, консультаций, производства. Основным элементом развития предприятий в Славутиче является потребность в продукции или услугах, которые они могут предложить. Но существует несколько факторов, которые могут удерживать предпринимателей от создания предприятий. К ним относятся законодательство, которое должно позволить предприятиям развиваться, доступ к кредитам, службы по поддержке предприятий и наличие помещений.

В сферах обслуживания и производства, которые связаны с "большой семеркой", а также с проектами энергосбережения, возникает необходимость культуры общения между фирмами по вопросам совместного использования и оплаты услуг в сферах, таких как бухгалтерия, маркетинг, технические услуги. Эта модель должна послужить созданию секторных центров обслуживания для поддержки предприятий в дополнение к агентству, помогающему созданию предприятий.

Законодательство, связанное с экономическим развитием.

Государственное управление:

Законодательство, определяемое законами "О местных Советах народных депутатов, местном и региональном самоуправлении", а также Указом Президента Украины "О делегировании полномочий государственной исполнительной власти председателям и возглавляемым ими исполнительным комитетам, сельских, поселковых и городских Советов".

Законодательство включает: полномочия, предоставление услуг, выполнение определенных функций, таких как планирование и бухгалтерия, бюджет и финансы, управление муниципальной собственностью, местные экономические разработки, охрана окружающей среды, предоставление жилья, муниципальные услуги, услуги по продаже, транспорт, связь, социальные услуги, безопасность населения, зарубежная экономическая деятельность и представители власти, назначенные государством.

Город Славутич находится под юрисдикцией Киевской областной администрации.

Развитие малого и среднего бизнеса.

Существующее законодательство Украины в данный момент не способствует развитию независимых производственных центров малого и среднего бизнеса. Недостаточно развито и недостаточно стабильно законодательство, касающееся налогов, регистраций предприятий, владения на средства производства, выплаты кредитов и долгов.

Налоговая система в Украине - одна из причин, мешающих развитию малого и среднего бизнеса. Украинский налогоплательщик в настоящий момент обременен 36 видами налогов, обязательств и выплат. Также существуют платы в специальные фонды, количество которых в Украине достигает от 140 до 390.

Законодательство, связанное с экономическим развитием.

С целью улучшения экономического развития региона г. Славутич существует возможность получения этим регионом особого привилегированного статуса. Это стимулировало бы развитие малого бизнеса, связанного не только с независимым развитием города, а также с долгосрочной перспективой развития индустрии обращения с радиоактивными отходами. Существует Закон Украины от 23.02.96 "О денежном регулировании и налогах в Сивашской экспериментальной экономической зоне". Это первый реальный шаг Украины использовать рычаги законодательства для развития региона.

В соответствии с действующим законом созданы привилегии для стимулирования экономических инвестиций в этой зоне. Материалы, оборудование (за исключением предметов, подлежащих акцизному сбору), импортируемые в Украину для нужд собственного производства, не облагаются таможенным налогом и НДС. Налоги с прибылей от некоторых инвестиций в Сивашской зоне будут уменьшены на 50% и доходы в иностранной валюте не будут подлежать обязательной продаже Национальному банку.

Принимая во внимание небольшие размеры Славутича существует возможность создания микроэкспериментальной и демонстрационной зоны для процесса реформ в Украине.

Несмотря на то, что будут предоставлены фонды по проектам, выделенным "большой семеркой", существует необходимость подтолкнуть предприятия для того, чтобы подготовить их к эффективному использованию этих возможностей. Также необходимы гарантии возможности участия этих предприятий в совместных работах с иностранными партнерами.

В связи с трудностями получения финансирования очень часто малые предприятия отказываются принимать дополнительных сотрудников.

Существующая ситуация на ЧАЭС может предложить необходимые механизмы и критерии отбора предприятий, возможность перевода работников ЧАЭС на предприятия региона г. Славутич. Однако, зарплата этим рабочим должна выплачиваться в купон-карбованцах. В тоже самое время предприятия, пользующиеся такой схемой найма работников должны будут взять на себя некоторые обязательства.

2.С. ОГРАНИЧЕНИЯ И НАПРАВЛЕНИЯ ДЕЯТЕЛЬНОСТИ ДЛЯ РАЗРАБОТКИ ОКОНЧАТЕЛЬНОГО ПЛАНА ДЕЙСТВИЙ.

Хотя часть рекомендаций может быть внедрена за сравнительно короткий период времени, все еще существует некоторое количество ограничений, которые не позволяют разработку полного комплекса рекомендаций. Их можно разделить на две группы, а именно:

Местный уровень (ЧАЭС и Славутич) и Киевская область.

Требуется детальный анализ в следующих областях:

- стратегический план для ЧАЭС и Славутича;
- количество работников и виды профессий, необходимых для безопасной эксплуатации и снятия с эксплуатации;
- профиль компетенций персонала ЧАЭС для организации программ по подготовке и переподготовке (при необходимости);
- график планируемых увольнений на каждой фазе снятия с эксплуатации с целью:
 - обеспечить скоординированную связь между этими увольнениями и мероприятиями в связи с реализацией МОВ; и
 - где это необходимо, обеспечить подготовку компенсационных программ.
- исследование отношения к происходящему населения Славутича (необходимо провести в сочетании информационной компании); и
- справка о собственности на оборудование и помещения, находящиеся в Славутиче, которые могут быть переданы в пользование служб и производственных предприятий.
- профессиональный профиль и разбивка по категориям персонала ЧАЭС, живущего в Киеве;
- информация о тарифах на транспорт и стоимость жилья при оплате ЧАЭС данных услуг вышеназванным сотрудникам; и
- обязательства Киевской области по отношению к таким сотрудникам в случае их увольнения.

Органы центрального правительства и страны "большой семерки"

- краткосрочная и долгосрочная стратегия правительства в отношении ЧАЭС и Славутича;
- более детальная информация о планируемых реформах в ядерной энергетике, особенно в плане социальных фондов и схем компенсации персонала;

- роль различных правительственных органов (министерств) в финансировании ЧАЭС и Славутича;
- более подробная информация о предполагаемых немедленных и долгосрочных реформах в сфере социальной защиты;
- детальная информация о существующей схеме компенсации для работников, которых переводят на другие атомные электростанции;
- детальная информация о существующих механизмах финансирования и переобучения работников;
- детальная информация о коллективном договоре между Госкоматомом и профсоюзами;
- детальная информация о стоимости полного цикла эксплуатации атомных электростанций;
- детальная информация о передаче физических фондов полугосударственным или негосударственным учреждениям;
- детальная информация о местных административных реформах, которые должны быть проведены в ближайший и более длительный период, принимая во внимание разделение ответственности и обеспечение коммунальных и социальных услуг и предложенные механизмы финансирования;
- детальная информация о принятом законодательстве для недавно введенной свободной экономической зоны в Сиваше;
- детальная информация о налогах, которые взимаются с организаций; и
- детальная информация о системе городского снабжения и процедуре получения контрактов на городское снабжение (если это существует).
- детальная информация о предполагаемых этапах и графике осуществления проектов МОВ Украины и "большой семерки" с целью понимания объемов и времени осуществления экономической деятельности в регионе в связи с ним;
- детальная информация о финансовых механизмах и процедурах поставок для осуществления проектов МОВ с целью оценки потребности в местной рабочей силе, налоги и объем услуг;
- детальная информация об условиях и процедурах, которыми руководствуется Счет ядерной безопасности ЕБРР, для понимания целей и ограничений этого финансирующего источника;
- детальная информация о предполагаемом профессиональном характере рабочей силы по проектам МОВ, предоставленная иностранными и местными сторонами, для выяснения необходимости подготовки и переподготовки местной рабочей силы;
- детальная информация о других субсидируемых программах или проектах и предполагаемых ими местных трудовых ресурсов, которые будут привлечены к работе для поддержки целей МОВ.

3. РЕКОМЕНДУЕМЫЙ ПРОМЕЖУТОЧНЫЙ ПЛАН ДЕЙСТВИЙ

Рекомендации: проект краткосрочного плана действий.

Аннотация проекта рекомендаций.

Проект рекомендаций делится на следующие группы:

- Вопросы человеческого фактора, касающиеся улучшения чувства уверенности у персонала ЧАЭС и населения Славутича;
- Распространение информации.
- Перепрофилирование рабочей силы;
- Механизмы для стимулирования расширения экономической базы Славутича
- Реорганизация коммунальных услуг, которые обеспечиваются ЧАЭС (Госкоматомом);

3.A МЕРОПРИЯТИЯ, СВЯЗАННЫЕ С ЛЮДСКИМИ РЕСУРСАМИ

Рекомендации: вопросы, связанные с людскими ресурсами.

Неуверенность в будущем является причиной нарушения психологической устойчивости персонала ЧАЭС и населения Славутича. С точки зрения обеспечения безопасного эксплуатации и обслуживания ЧАЭС рекомендуется:

(1) открыть консультативную службу в Славутиче и, по возможности, на ЧАЭС.

Эта консультативная служба будет обеспечивать помощь работникам и их семьям в решении проблем адаптации к новой ситуации. Она будет отличаться от консультирования по трудоустройству, которое будет обеспечиваться согласно Проекту ЕС ТАСИС по развитию службы трудоустройства.

Профиль трудовых ресурсов ЧАЭС подразумевает образование сервисных и производственных предприятий, связанных с другими формами производства энергии. Для того, чтобы Украина сохранила этот опыт, необходимо приложить усилия для максимального использования этих ценных людских ресурсов.

Реструктуризация коммунальных услуг и возможности, которые появятся для обслуживания новообразованных предприятий, будут стимулировать развитие микропредприятий и индивидуальной трудовой деятельности.

Технические консультации, разработка программного обеспечения, небольшие ремонтные фирмы, услуги в сфере питания, детские сады, услуги в области маркетинга предприятиям, печать, бухгалтерский учет - все это многочисленные возможности, которые появятся в городе.

(2) Помощь отделу кадров ЧАЭС в решении вопросов, связанных с увольнением персонала, и поддержка необходимого уровня квалификации персонала, который остается.

Основным элементом успеха в вопросе перепрофилирования персонала и расширения экономики Славутича будет уровень информированности рабочих ЧАЭС и населения города.

Исходя из принципа "безопасность обеспечивается лучше всего информированными людьми", должна быть создана система открытого и свободного потока информации. Это требует активного участия и согласия между сторонами проекта, т.е. руководством ЧАЭС, властями Славутича и центральными правительственными органами. Также считается очень важным, чтобы работники ЧАЭС были проинформированы первыми о каких-либо изменениях на станции и состоянии проекта по социальным последствиям закрытия станции. Это обеспечит то, что они будут знать о своей дальнейшей судьбе из местных источников раньше, чем об этом сообщит национальная или международная пресса. На основании этого рекомендуется создать независимый целевой информационный центр в Славутиче, который распространял бы информацию на разных уровнях.

Информационный центр был бы проинформирован по всем вопросам и различным элементам, которые касаются плана действий и помимо ЧАЭС, Славутича и правительства, получал бы информацию от источников таких, как:

- агентство по развитию предприятий;
- микропредприятия и центры индивидуальной трудовой деятельности;
- центры подготовки;
- возможности смены места работы;
- центр занятости;
- центр развития предпринимательства;
- жилье;
- проекты, связанные с радиоактивными отходами;
- снятие с эксплуатации;
- законодательство и др.

С целью распространения информации на местном уровне будут использованы следующие методы:

- индивидуальные консультации;
- неформальные основные группы;
- встречи вопросов и ответов;
- распространение информационных брошюр по конкретным вопросам;

- городские собрания;
- информационные листки;
- пресс-релизы.

Информационный центр также обслуживал бы СМИ на местном, национальном и международном уровнях. Поэтому с целью эффективного распространения информации рекомендуется:

(3) Создание целевых информационных центров на ЧАЭС и в Славутиче с целью информирования рабочих и населения о существующих для них возможностях.

Рекомендации: перепрофилирование трудовых ресурсов.

Несмотря на тот факт, что полная картина профессиональных компетенций трудовых ресурсов ЧАЭС еще не завершена, некоторые мероприятия считается необходимым провести как можно скорее. Привлечение бывшего персонала ЧАЭС к проектам, связанным с Меморандумом "большой семерки", требует профессиональной переподготовки. В дополнение к технической подготовке и переподготовке существует необходимость подготовки в сфере предпринимательства и управления. Поэтому рекомендуется следующее:

(4) Программа подготовки инструкторов, должна охватить приблизительно 40-50 кандидатов от ЧАЭС. В начальной стадии участники будут обучаться анализу необходимости подготовки, разработке учебных программ и методик. После этого инструктора будут обучаться по различным специальностям.

(5) Требования к подготовке и переподготовке и бюджет являются неотъемлемой частью тендерных документов технических проектов "большой семерки".

(6) Должно быть обеспечено обучение менеджменту и экономике для потенциальных предпринимателей Славутича.

3.В ПОВЫШЕНИЕ РАЗНООБРАЗИЯ ЭКОНОМИКИ СЛАВУТИЧА

На среднюю и дальнюю перспективу существует возможность сохранить имеющееся качество уровня жизни Славутича, повысив разнообразие его экономики. В настоящее время в центре внимания находится кризис, который имеет место уже сейчас. Это естественно и такое развитие событий дополняется созданием среды, описанной в разделе I. Однако Славутич является местом, где собраны высококвалифицированные человеческие ресурсы, которые необходимо сохранить и способствовать их работе в областях, жизненно важных для будущего Украины, например, энергия. Мероприятия, связанные с МОВ, обеспечат различные возможности для обеспечения занятости и развития предприятий. Славутич будет наиболее логичной базой для иностранных подрядчиков,

которая потребуется им для руководства реализацией проектов "большой семерки". Широкий спектр технических и сервисных предприятий потребуется для сотрудничества с иностранными подрядчиками. Важно, чтобы были созданы механизмы для обеспечения возможностей таким местным предприятиям полномасштабно участвовать в данных проектах. Учитывая роль ЧАЭС в жизни многих людей в Славутиче и его оторванность, станция могла бы сыграть активную роль в процессе повышения разнообразия экономической жизни.

Правительство также должно обеспечить такие механизмы, которые бы стимулировали и "подтолкнули" местную экономику с тем, чтобы в случае появления любой новой инициативы, она была успешно осуществлена. Необходимо способствовать развитию дальнейших механизмов, таких как контрактные условия, обеспечивающих привлечение местных сил. Госкоматому следует предпринять усилия, чтобы обеспечить выполнение как можно большего объема работ по обеспечению и реализации проектов "большой семерки" в Славутиче.

Повышение разнообразия экономики Славутича, включает не только создание новых рабочих мест благодаря развитию предприятий, но также экономической реструктуризации ЧАЭС по мере передачи сервисных служб либо местным властям, либо центральному правительству, либо полугосударственным и частным предприятиям. Предлагается, что при осуществлении данного процесса применяться следующие подходы:

- упор делался на микроэкономические, а не на макроэкономические инструменты;
- привлечение руководства ЧАЭС и местной администрации в качестве основных действующих лиц;
- нацеливание местных предприятий социальной сферы (отдельных предприятий, групп предприятий и/или местной администрации) на обеспечение их обязательного участия;
- следует нацелить усилия и отработать формы, сотрудничества, которые бы отражали местные условия Славутича и специфическую социальную роль, которую играет ЧАЭС.

В соответствии с данными усилиями появится необходимость в развитии местной демократии и участия граждан Славутича. Направления деятельности будут в особенности нацелены на следующее:

- распределение ответственности среди городского населения путем выделения местных групп и предоставления им необходимых инструментов и "ноу-хау", необходимых для повышения разнообразия местной экономики с целью обеспечения самостоятельного механизма хозяйствования, альтернативного ЧАЭС;
- поддержка и развитие переходных форм управления местной социальной политикой (смешанные формы собственности, смешанные формы управления); и

- благоприятствование различным формам самоуправления и социального развития.

Говоря о передаче Славутичу или области или городским учреждениям и объединениям социальных функций ЧАЭС, которые могли бы организовать и руководить социальными службами (учреждения ассоциативного типа, кооперативы, союзы), развитие должно идти по следующим направлениям:

- особое внимание уделяется сильным социальным и культурным инициативам в пользу тех местных групп и сообществ, чья жизненность в значительной степени не зависима от социальной производственной роли составляющих их членов. Такие люди заинтересованы в реализации своих социально-экономических прав как **гражданских прав**, а не через распределение прав, определяемых корпоративными интересами;
- особое внимание уделяется выявлению таких групп: экологов, гражданских служащих, но также пенсионеров и любых других социальных или возрастных групп, чьи взаимоотношения с корпоративной системой (в данном случае ЧАЭС), чья ситуация резко ухудшилась по мере того, как выросла по сравнению с прошлым их зависимость от государственных дотаций;
- развивать способности перехода и укоренения у местного населения веры в свои способности создать собственные предприятия и право на эксперимент;
- предпринять усилия дать свободу различным интересам, долгое время сосуществовавшим в пределах корпоративных рамок ЧАЭС;
- использовать существующие местные традиции самоуправления, управления городом и создание предприятий и направить усилия на развитие альтернативных моделей.

Важно, чтобы немедленные инициативы по стимулированию разнообразия экономики города были ощутимы. Предлагается, чтобы мероприятия, намеченные рядом рекомендаций, осуществлялись в едином месте, в здании, куда доступ открыт всем.

Рекомендации

Проекты МОВ предлагают широкий спектр прямых и косвенных возможностей в обеспечении занятости. Частные и получастные местные предприятия могут быть активно использованы в качестве партнеров иностранных подрядчиков в технических и сервисных вопросах. К сожалению, в Славутиче имеется очень мало предприятий, способных выполнять такую роль. Для развития таких предприятий, способных активно участвовать в мероприятиях в связи с проектами "большой семерки", еще есть время. Поэтому рекомендуется для решения этой проблемы предпринять ряд действий.

(7) Правительство должно рассмотреть возможность создания экспериментальной экономической зоны, которая имела бы ограниченный срок действия - 10 лет;

(8) Должен быть создан Фонд развития Славутича. В работе Фонда принимали бы участие ЧАЭС и Госкоматом, основные местные действующие лица, такие как, ассоциации предприятий, профсоюзы, местные и национальные организации (и возможно международные финансовые институты). Фонд предоставлял бы кредиты под небольшие проценты и помещения для предприятий;

(9) Как часть вклада в этот Фонд, ЧАЭС и Госкоматом должны создать фонд недвижимости, который предоставлял бы дешевые помещения для новообразованных предприятий;

(10) Условия должны быть оговорены в тендерных документах Меморандума "большой семерки" по проектам, связанным со снятием станции с эксплуатации, 4 блоком и обращением с радиоактивными отходами, которые обеспечат участие в них украинских предприятий и бывший персонал ЧАЭС;

Для незамедлительной поддержки развития предприятий рекомендуется следующее:

(11) В Славутиче должен быть создан филиал Киевского агентства по развитию бизнеса, поддерживаемый ЕС ТАСИС. Он бы мог начать свою работу с регулярных выездных консультаций, до тех пор пока не будут предоставлены необходимые помещения. Также, в Славутиче должен быть создан филиал Киевского центра деловых связей, поддерживаемый ЕС ТАСИС, который направляет фонды ЕБРР для развития средних и малых предприятий.

Для того, чтобы обеспечить новые предприятия людскими ресурсами и одновременно переподготовить персонал ЧАЭС, используя опыт, наработанный по данным профессиям, рекомендуется:

(12) ЧАЭС и Госкоматом должны представить схему занятости работников ЧАЭС (за счет ЧАЭС и Госкоматома) на предприятиях Славутичского региона. Осуществление такой схемы могло бы находиться под руководством Фонда развития г. Славутича;

Результаты предварительных исследований показали, что в Славутиче работает ряд малых предприятий. Нужно определить насколько населения Славутича заинтересовано в создании малых предприятий и индивидуальной трудовой деятельности. В связи с этим рекомендуется следующее:

(13) Должны быть внедрены механизмы для создания фонда поддержки малых предприятий и индивидуальной трудовой деятельности.

Потенциальные кандидаты, у которых есть идеи, могли бы получать финансовую помощь в период от 6 до 9 месяцев;

Как только станет понятна структура существующих и потенциальных предприятий Славутича, должна быть основана система отраслевых сервисных центров. Эти центры будут предоставлять услуги в сферах маркетинга, технических вопросов, бухгалтерского учета и в административной сфере. Это может быть связано с данной рекомендацией.

Профиль рабочей силы ЧАЭС таков, что он может быть плодотворно использован в многообещающих альтернативах, связанных с энергосбережением. Поэтому рекомендуется, чтобы:

(14) Правительство рассмотрело возможность создания экспериментальных программ по энергосбережению в регионе г. Славутича. Эти программы включали бы в себя производство, технические консультации и демонстрационные проекты. Предложения по этой рекомендации подлежат утверждению и должны быть подготовлены, так, чтобы обеспечить защиту частного сектора, донора и международных финансовых институтов.

3.С ДРУГИЕ ДЕЙСТВИЯ

Рекомендации: реструктуризация коммунальных служб, обеспечиваемых ЧАЭС

Очевидная неопределенность в способности ЧАЭС поддерживать коммунальные и социальные службы требует, чтобы срочно были приняты меры, способные решить эту проблему. На этой стадии отсутствует ясная картина взаимоотношений ЧАЭС, Госкоматома и других правительственных структур. Однако, не ожидая, пока прояснятся факты, относящиеся к этим взаимоотношениям, которые необходимы для дальнейшего анализа, в т.ч. подготовки детальных моделей перехода служб на самофинансирование, рекомендуются некоторые механизмы обеспечения этих служб в будущем.

(15) Подготовить в короткие сроки план для г.Славутича, который детализировал бы возможные источники дохода и первоочередные расходы для города, которые были бы согласованы с органами центральной власти.

(16) Городу необходимо разработать технико-экономическое обоснование и план эффективной передачи фондов социальных служб, согласованных ЧАЭС, органами центральных и городских властей.

(17) Помощь городской власти и отделу ЧАЭС, занимающемуся коммунальными службами, в разработке механизмов эффективной передачи.

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