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POLICY REFORM AND INSTITUTIONAL DEVELOPMENT ASSESSMENT

FINAL REPORT

Performed for the

ARAB REPUBLIC OF EGYPT NATIONAL TELECOMMUNICATIONS ORGANIZATION (ARENTO)

and the

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)

Under Contract No. 263-0177-3-88950

By

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August 1994

FINAL REPORT

POLICY REFORM AND INSTITUTIONAL DEVELOPMENT ASSESSMENT

TABLE OF CONTENTS

LIST OF EXHIBITS

SECTION 4

SECTION 5

SECTION 6

APPENDICES

SECTION 1 EXECUTIVE SUMMARY

Introduction and Relevant Background

The U.S. Agency for International Development (USAID) has made a major commitment to assist in the development of Egypt's telecommunications sector, which is regarded as having a key role in the country's overall economic development. Since 1978, USAID and the Government of Egypt (GOE) have jointly implemented a total of four projects (Telecommunication I, II, III, and IV) in the telecommunications sector, totaling $324 million. Another $83 million in microwave equipment and switching systems have been imported to Egypt from the United States through USAID's Commodity Import Program since 1977.

The Egyptian telecommunications network currently faces a number of opportunities that, if addressed, may improve the network's overall efficiency and position ARENTO to become a world class telecommunications provider. Broadly, these opportunities involve:

- Policies related to economic pricing of telecommunications services
- Internal cash generation and self-financing of network development
- Institutional issues relating to the development and retention of technically qualified and experienced staff
- Technical issues caused by the complex interface requirements resulting either directly or indirectly from the policy and institutional oversight

The executive summary represents a compilation and summary of recommendations made in the various sections of the report. These recommendations are categorized below along with the relevant decision makers who will play an important role in implementing the recommendations. The decision maker classifications are as follows:

A = ARENTO
M = Minister of Telecommunications
G = Other Government of Egypt Ministries

Context of Current Study Effort

Increased investment requirements, improvements in the overall level of telecommunications service and changes in telecommunications sector policies and institutional structure, are necessary to meet the large demand for telecommunications services in Egypt. This will require changes of significant magnitude, with political, social, legal and financial ramifications, leading to new institutional, legal and regulatory frameworks. Therefore, a comprehensive examination and assessment of the Egyptian telecommunications sector was undertaken with the approval and cooperation of the Ministry of Telecommunications and ARENTO by K&M Engineering & Consulting Corporation to determine the nature of changes to be made, the form they should take, and how and when these changes might be implemented. Emphasis has been placed on recommendations that will enhance the efficiency of the telecommunications sector by increasing institutional and fiscal autonomy, thereby improving the institutional capabilities of ARENTO.

Additionally, changes and recommendations from two previous studies have been reviewed and included herein where applicable. The two previous studies are:

(1) The ARENTO Operations and Maintenance Study performed by Teleconsult, Inc. and Harza Engineering Inc.

(2) The ARENTO Cost of Service/Rate Study performed by K&M Engineering and Consulting Corporation

Assessment Objectives

The principle objectives of the assessment are to identify any regulatory, legal or institutional changes that would enhance the development of the telecommunications sector and develop specific recommendations related to:

- Regulatory/Legal Framework
- Organizational Structure and Operations
- Profitability/Self Financing

Importance of Counterparts and Egyptian Nationals

In achieving those study objectives, K&M worked closely with ARENTO counterpart personnel assigned by the ARENTO Chairman to insure access to critical technical and financial data as well as validate the practicality of policy recommendations and alternatives to be formulated during the course of the overall assessment effort.

In K&M's view, two important ingredients contributed toward the overall success of this assessment effort. These include:

(1) Effective participation by designated ARENTO counterparts; and

(2) The exceptionally high quality of the Egyptian nationals that served as consultants to K&M.

Overall Approach

In undertaking this critical assessment effort, K&M initially prepared a work plan including specific performance milestones as well as a comprehensive listing of data requirements, for joint approval by both USAID and ARENTO. As cited above, the formal nomination of ARENTO study counterparts was a major contributing factor in the ultimate success of this study effort. In addition, from the very outset, K&M was able to obtain ARENTO's approval and support for the criteria (listed below) against which all proposed changes could be evaluated. Finally, K&M formed specialty teams for performing each specific tasking assignment. In this regard, each team included a mix of highly qualified technical experts from the U.S. telecommunications industry, as well as former senior technical and financial managers from ARENTO.

Suggested Criteria to be Maximized

During the implementation of this study effort, the K&M study team consistently evaluated all proposed changes against the common objective functions that would be associated with a "World Class Telecommunications Provider". These objective functions are:

(1) A state-of-the-art infrastructure
(2) Market oriented service offerings from state-of-the-art technology
(3) An investment grade financial position

2

(4) To attract, retain and develop world class personnel
(5) High value services at competitive prices
(6) An environment conductive to innovation and change in a global economy

Recommendations from previous studies were evaluated against the common objective functions which sought to:

(1) Increase anticipated revenue per line
(2) Decrease the long-run marginal costs of providing telecommunications services
(3) Increase network utilization and overall efficiency
(4) Enhance the overall value of the network overtime
(5) Improve the perceived quality of services provided to ARENTO customers

Regulatory and Legal Framework Assessment

The findings, conclusions and recommendations in this category involve related items from the Cost of Service/Rate Study, legal considerations, the regulatory framework within ARENTO and the relationship between ARENTO and the Government of Egypt (GOE) regarding the degree of independence and clear cut accountability that exist between the two organizations.

Major Findings and Conclusions

- Planning Processes
  The ARENTO Cost of Service/Rate Study revealed that the planning processes within ARENTO are limited in scope and where they do exist are, to a great degree, disjointed and informal. The primary reason for this is the fact that ARENTO's funds are used by other ministries to finance non ARENTO projects. There is a belief that more comprehensive and formal planning (realistic revenue and earnings forecasts and supporting budgets) will result in an increase in the transfer of funds from ARENTO to other ministries. Another principle reason is the fact that the GOE exercises its ARENTO oversight responsibility at a detailed operational level involving the review and approval of job design, organizational structure, projects, revenues, wages and salaries, incentives, bonuses and other operating expenses rather than at a strategic planning level.

- Pricing Reform
  The previous Cost of Service/Rate Study revealed that almost all ARENTO services require price reform. Although many were cognizant that pricing reform is critical to the future success of ARENTO, there is no formal process or mechanism in place to promote and implement pricing reform. Without price reform and with continuing increases in the transfer of funds to other ministries the continued expansion and maintenance of telecommunications facilities to meet existing demand is in jeopardy, and the feasibility of attracting public sector investment is practically impossible.

- Legal Considerations

  - *Responsibility*
    Under Public Law 153, ARENTO was granted the exclusive responsibility for the establishment and operation of the national telecommunications network and for international interconnection within the general framework of the National Telecommunications Policy of the Government of Egypt (GOE).

  - *Autonomy*
    In matters dealing with national and international telecommunications services ARENTO was given a high degree of autonomy under Public Law 153. ARENTO is chartered to invest its resources to further its stated telecommunications sector goals and can organize and enter joint agreements with other corporations to achieve its objectives. This autonomy has been encumbered and restricted by the intervention of various ministries.

  - *Implementation of the Law*
    Public Law 153 is an excellent law that needs to be fully implemented within the original context of responsibility and autonomy. Today, the law as it is currently administered, presents three opportunities for improvement that will help Egyptian telecommunications to move forward and keep pace with changes occurring in telecommunications throughout the rest of the world. Additionally, these opportunities when implemented will assist ARENTO in supporting Egypt's market reform programs.

- *Opportunity 1 - A Need Exists for a Formal National Telecommunications Policy*
  There are no codified national telecommunications policies, plans or objectives for the country of Egypt. Under Pubiic Law 153, it was envisioned that a general national telecommunications policy (with long range plans and objectives) would provide the guidance and framework within which ARENTO would carryout its responsibilities and within which other GOE Ministries would exercise their oversight responsibilities. To the extent that a national telecommunications policy exists, it is informal and is not comprehensive.

- *Opportunity 2 - Ministerial Decrees Issued in Conjunction with the Implementation of Public Law 153 are Outmoded and Need to be Simplified*
  Ministerial Decrees issued in conjunction with the implementation of Public Law 153 have evolved to the point where the responsibility and autonomy originally granted to ARENTO has been compromised with a complex set of oversight reviews and approvals related to operations. ARENTO has delegated authority, either formally or informally, over such matters as organizational structure, job design, wages, salaries, bonuses, incentives, tariff change proposals, retention of funds and construction financing to other ministries. This delegation of authority has created administrative bottlenecks and financial hardships that encumber and restrict the ability of ARENTO to effectively and efficiently carry out the responsibilities they are legally mandated to fulfill.

- *Opportunity 3 - Conflicting Roles of Regulator and Regulatee*
  ARENTO, as it is currently organized and structured, has dual and conflicting roles. ARENTO is both regulator and regulatee.

Key Recommendations

- <u>*Establish a National Long Term Telecommunications Policy*</u> A M G
  A formal national long-term telecommunications policy with goals and objectives should be established and codified to promote the optimal evolutionary path for the country's telecommunications industry and provide the infrastructure and guidance to ARENTO's telephone operations to meet the needs of the Egyptian public. A regulatory body with appropriate national interest ar d industry perspective should be responsible for developing the national telecommunications sector plan with subsequent approval by the People's Assembly.

- <u>*Confirm ARENTO Autonomy*</u> A M G
  Two primary aspects of the proposed sector reform are required for improving the outlook of Egyptian telecommunications investment. First, ARENTO requires autonomy. The enterprise needs to repair its internal processes that have been unlinked through ministerial intervention. This requires Public Law 153 to be administered within the original context of vesting responsibility and autonomy in ARENTO. This can be accomplished by issuing updated ministerial decrees. Second, a well focused countervailing power within the autonomous ARENTO must be put in place to create a framework for Telecom sector participation. This will be a key to ensuring that commercialization brings the best results to Egypt.

- *Establish a Regulatory Body* A M G
A premise of this study is that ARENTO's authority in areas of pricing, service standards and market entry should be exercised by a regulatory body that is separate and distinct from the provisioning of telecommunications services. The regulatory body would provide focused participation in addressing issues in these areas as well as protecting and serving the public interest. This authority should be taken from the hands of other ministries and vested in a regulatory body until these characteristics are eliminated through competition. ARENTO will require assistance in developing the framework for an effective Regulatory Commission.

- *Role of the Ministry of Telecommunications* A M
The role of the Ministry of Telecommunications is enlarged and takes on added significance in becoming the focal point for the GOE's national telecommunications policy.

- *Roles of Other Government Ministries* A M G
Specific changes to existing decrees are identified which slightly alter the role that other ministries in the GOE assume in the telecommunications sector. In addition, the responsibilities of a five member Regulatory Commission and its supporting staff are described that will require largely a shift and refocus of existing telecommunications sector resources.

Implementation Guidelines

- *Phase I - July 1994-June 1995 Confirm the Applicability of Public Law 153* A
The implementation of these three facets of the prescription for reform should take place in a three phased approach over a period not to exceed four years. In Phase 1, the spirit and intent of the existing law should be followed and enforced with intervening decrees overridden to provide clear cut responsibility and a high level of autonomy for ARENTO. The groundwork for separating regulator and regulatee functions for the telecommunications sector should also be developed in Phase I.

- *Phase II - July 1995-June 1997 Establish Formal Telecom Oversight* A G
In Phase II, separating regulator and regulatee functions would be implemented with creation of a joint stock company for telephone operations and creation of a regulatory body to carry out the national telecommunications policies of the GOE. This facilitates further movement toward commercialization of ARENTO telephone operations by organizing it into a government-held corporation as permitted under Public Law 153 and creating a countervailing power to protect and serve the public interest. The cornerstone of Telecom sector success will be in the form of an industry oversight body called the Arab Republic of Egypt Communications Commission (ARECC). Both organizations, the telephone operations unit and the ARECC, would be established under the authority granted to ARENTO under Public Law 153.

- *Phase III - July 1997-June 1998 Commercialization* A G
The aim of ARECC should be to regulate to the extent that basic and enhanced telecommunications services are developed and provided to meet existing and anticipated demand for such services by the people of Egypt. This is to be achieved by regulating only the essentials-basic service prices and Telecom sector plan development which will ensure that competitive prices and service levels are achieved. In Phase III, the stage is set to attract private sector investment that will benefit the consumers, employees of ARENTO and the Government of Egypt.

Organizational Structure and Operations Assessment

The recommendations in this category involve ARENTO's organization structure and human resource requirements including recruitment, training and compensation policies that are needed to enhance productivity and efficiency and to avoid the loss of high potential productive employees. Additionally, these recommendations include results from prior studies and suggestions to improve the overall personnel system. The findings, conclusions and recommendations have been categorized into three broad areas:

(1) Organizational Structure and Functional Assessment
(2) Employee Staffing and Development
(3) Planning and Management

Organizational Structure and Functional Assessment

Major Findings and Conclusions

- Technically Focused Organizational Structure
  The existing Organizational Structure in Exhibit i focuses primarily on the technical aspects of telecommunications. A broader organizational focus that includes marketing, customer service, human resources, strategic planning, auditing, public affairs, government affairs, depreciation studies and training will be required to improve the long-term planning and organizational effectiveness. Additionally, many staff functions are decentralized which diminish the level of effort, priority and focus that is needed to support the primary business thrust of selling telecommunications services.

- Overall Network Architecture
  The organization is segmented by traditional network components, i.e. Switching, Transmission and Outside Plant. Skill sets are required in planning to accomplish Network architectural design to ensure appropriate integration and planning for new and emerging technologies.

- Span of Control - Operations and Maintenance
  The operations (services) and maintenance functions are currently combined into an extremely large organization. It appears desirable to separate service (customer contract functions and customer connection functions) from network preventive maintenance, cutover work and repair activity to ensure that both customer service and maintenance and repair activity receive adequate priority, focus and level of effort. This will position ARENTO to improve their customer focus, quality of service and increase network through-put.

- Business Processes Need to Be Examined
  A comprehensive organizational structure assessment is needed before specific organizational changes can be recommended. It would be appropriate that all business processes be reviewed and defined before attempting to restructure the organization. ARENTO will require assistance in reviewing, defining and developing optimum business processes.

- Manager's Board
  A Manager's Board, as covered under Law 153, has not been established. This Board will be critical in maintaining effective linkage between the Operations and Board of Directors in the management of new policies, programs and organization within ARENTO.

Key Recommendations[1]

- <u>Expand or Establish New Functions and Centralize Staff Functions</u> A
  Expand or establish new organizational functions and centralize staff functions as shown in Exhibit 2, to support the improved management of human resources, strategic planning, auditing, public and governmental affairs, and depreciation studies with the following additions/changes:
  - Centralize the budgeting processes
  - Centralize contract administration
  - Centralize inspection functions to improve objectivity and independence
  - Centralize accountability for Human Resources
  - Establish a network architecture planning function for overall network integration and planning. This function should be included with planning and engineering and requires specialized training, possibly with ITU
  - Separate Planning & Follow-up functions from Computers and Information
  - Expand and/or establish in-house functional expertise and consolidate treasury/financier functions within Finance for cash, long term debt, securities planning, and overall financial management
  - Provide a single focal point with appropriate staff within Operations to manage and execute all outside plant maintenance and repair activity
  - Establish a work group to conduct on-going depreciation studies
  - Expand public and governmental affairs functions to enhance, represent and promote the interests of ARENTO
  - Establish a strategic planning function

- <u>Expand Marketing and Customer Services Focus</u>
  Expand the marketing function to include responsibility for sales and service (customer contact and network connection), promotion and advertising, market planning and development, pricing and governmental affairs. This includes moving the customer contact and service installation and repair functions from the current O&M organization while still maintaining geographic zones for both marketing and O&M.

- <u>Establish the Manager's Board as Outlined in Law 153</u>
  This Board should provide oversight and direction and coordinate the development of plans associated with the re-engineering of processes, restructuring of organization and establishment of new policies.

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[1] Under existing policies (Ministerial Decree), these organizational changes and the related financial impact of these changes would have to be reviewed and approved by the ARENTO Board of Directors, the Ministry of Telecommunications, the Ministry of Finance and the Central Department for Administration and Organization. To increase the efficiency and effectiveness of the GOE and ARENTO and without compromising oversight responsibilities and existing lines of authority, it has been recommended throughout this paper that ARENTO oversight be exercised through the review and approval of five year strategic business plans that include specific goals and objectives mutually agreed upon between ARENTO, the Ministry of Telecommunications, the Ministry of Planning and the Central Department for Administration and Organization. Assuming this fundamental change can be effectuated, the above organizational changes can be implemented efficiently and effectively by ARENTO.

ARENTO ...TING ORGANIZATIONAL STRUCTURE

January 1994

- MINISTER OF TRANSPORT, TELECOMMUNICATIONS, MARITIME TRANSPORT & CIVIL AVIATION
  - BOARD OF DIRECTORS
    - CHAIRMAN ARENTO
      - LEGAL ADVISOR
      - Legal Department
      - Security & Civil Defense
      - Central Dept. Chief - Follow-up & Planning
      - Central Dept. Chief - Information & computers
      - VICE CHAIRMAN Finance, Administration & Commercial
        - CDC Finance
          - Gen. Mgr - Inspection
        - CDC Administration
          - Gen. Mgr - Inspection
        - CDC Purchase & Stores
          - Gen. Mgr - Inspection
        - CDC Commercial Affairs & Marketing
          - Gen. Mgr - Inspection
        - Director Human Resources
      - VICE CHAIRMAN* Planning
        - CDC Exchange
        - CDC Local Network
        - CDC Transmission
        - CDC Power/Building
      - VICE CHAIRMAN OM
        - CDC Exchange
        - CDC Transmission
        - CDC International
        - CDC Training
        - CDC New Services
        - CDC Eng/Traffic inspection (Auditing)
        - First Upper Egypt Zones
        - Second Upper Egypt Zones
        - Canal Cities & Sinai Zones
        - East Delta
        - Middle Delta
        - West Delta
        - East Cairo
        - West Cairo
        - Alexandria
      - VICE CHAIRMAN* Execution
        - CDC Exchange
        - CDC Local Network
        - CDC Transmission
        - CDC Power

* The Planning and Execution Sectors have been split but have not yet received full approval from the Minister of Org. & Dev. as of January 1994

10

ARENTO PROPOSED FUNCTIONAL STRUCTURE (1)

January 1994

- **MINISTER OF TRANSPORT, TELECOMMUNICATIONS, MARITIME TRANSPORT & CIVIL AVIATION**
  - **BOARD OF DIRECTORS**
    - **CHAIRMAN ARENTO**
      - Legal Advisor
      - Legal Functions
      - Inspections (auditing)
      - Security & Civil Defense
      - Information & Computers
      - **Finance**
        - Finance/Accounting
        - Payroll Accounting
        - Purchase & Stores
        - Customer Billing
        - Cost Accounting
        - Treasury/Financier
        - Budget Development
        - Budget Administration (2)
        - Strategic Business Planning
      - **Commercial (Marketing & Service)**
        - International Sales
        - Market Planning
        - Pricing
        - Promotion/Advertising
        - Service Development
        - Governmental Affairs
        - New Services
        - Customer Contact
        - Customer Connection
        - Facilities Administration
        - Zones
          - First Upper Egypt Zones
          - Second Upper Egypt Zones
          - Canal Cities & Sinai Zones
          - East Delta
          - Middle Delta
          - West Delta
          - East Cairo
          - West Cairo
          - Alexandria
      - **Planning & Engineering**
        - Switching *
        - Local Network *
        - Transmission/Trunk *
        - Power/Building *
        - Network Architecture *
        - Depreciation Studies
      - **Operations (Maintenance & Repair)**
        - Quality Administration *
        - NOC Operations *
        - Switching *
        - Local Network
        - Transmission/Trunk *
        - Power/Buildings
        - Zones
          - First Upper Egypt Zones
          - Second Upper Egypt Zones
          - Canal Cities & Sinai Zones
          - East Delta
          - Middle Delta
          - West Delta
          - East Cairo
          - West Cairo
          - Alexandria
      - **Execution (Construction)**
        - Switching *
        - Local Network *
        - Transmission/Trunk *
        - Power/Buildings *
        - Contract Administration *
      - **Administration (Human Resources)**
        - Compensation/Benefits
        - Training
        - Public Affairs
        - Staffing

* Includes International Facilities

Note (1): This chart reflects business functions and is not intended to represent a formal proposed "Organizational Structure". Business processes should be identified, redefined, streamlined and simplified before a formal organizational structure can be proposed, i.e. conduct a re-engineering study.

Note (2): Assumes that the Ministry approves required funding levels.

BUSINESS PROCESS DIAGRAM

MAIN SEQUENCE

PLAN

- Business
- Network
- Market
- Operations

BUILD

- Service Development
- Network Engineering
- Network Construction
- Contract Administration

SELL

- International Sales
- Customer Contact
- Promotion
- Pricing

PROVIDE

- Customer Connection
- Facilities Administration

MAINTAIN

- NOC Operations
- Service Maint./Repair
- Billing
- Network Maint./Repair
- Operator Services

ADMINISTRATION

Government Affairs
Legal
Public Affairs

Staffing
Employee Relations
Training
Quality Administration
Compensation/Benefits

Financial Management
Accounting
Budgeting
Program Management
Auditing
Payroll

Purchase & Stores
Materials Mangmt
Office Services
Property Administration

Information Management
Computers

Employee Staffing and Development Assessment

Major Findings and Conclusions

- Staffing Levels - Under utilization of Personnel
  The current total staffing level of approximately 56,000 employees is too high given the 2.0 million lines in service (35 lines/employee). This conclusion is based on a comparison to the CANTV Operation in Venezuela where about 24,400 employees are employed for 1.9 million lines in service (78 lines/employee). If the CANTV productivity experience is applied to ARENTO, the total ARENTO employee count would be about 25,600, or a reduction of over 31,000 employees. Establishing the final staffing objective requires additional analysis and a process assessment to determine the appropriate long-term objective for staffing which balances political, financial, social and operational implications.

- Below Average Wages for Comparable Government Sector Positions
  The overwhelming consensus among all interviewed was that low salaries are the most significant issue facing management in motivating, retaining and attracting employees. The opinions of the interviewees and comparisons with the Suez Canal Authority bears out that ARENTO salaries for the engineering positions are from 2 to 4 times lower than that in other government sectors for comparable work.

- Attracting and Retaining High Potential Engineers and Programmers
  The engineering and computer programming positions were identified throughout the interviews as being the most critical and those where the turn-over is the highest. Significant difficulties have been encountered in attracting qualified high potential candidates for replacements, primarily due to low wages. Career opportunities for engineers and computer programmers are not available within pure technical areas of responsibility which reduces the ability of ARENTO to retain high potential engineers. The only opportunities for advancement are to supervisory positions. The Suez Canal Authority has a two level progression for engineering personnel. These career limitations in technical disciplines are considered to be important considerations in the retention of those key personnel.

- Cumbersome Salary Budgeting and Inefficient Wage and Salary Administration
  The processes for budgeting salaries and administering employee compensation are very complex. Employee performance evaluations are very subjective and are not based on specific goals and objectives. It was found through interviews that a manager spends up to 40% of his time on employee related matters. This underscores the complexity of the processes. Additionally, the Ministry of Finance routinely reduces the annual salaries budget below the level approved by the ARENTO Board of Directors that is required to support competitive salaries, including merit increases and incentives. However, ARENTO has the option to spend to higher levels than that approved, as long as the increased spending is funded through self-generated funds. This creates a "cash management" mode of operation which is not an effective means of managing overall resources.

- High Level of Technical Training
  The estimated 4000 personnel that are trained each year within the ARENTO Training Center, would indicate that the programs are reaching a reasonable quantity of personnel.

- Well Designed and Effective Technical Training
  The training programs seem to be well designed in that they were prepared with input from external sources such as the Saudi Arabian Operation and meet the standards of the

International Telecommunications Union. Also, both pre and post-testing is done with the students, along with surveys of training quality.

- Training for Specific Switches
  The decision has been made to begin systems-level training on the AT&T 5ESS within the Training Facility and arrangements have been made for installation of an AT&T 5ESS Training Switch. However, similar plans have not been made for training on the Siemens EWSD and CIT Alcatel Systems.

- Shortage of Non-Technical Training Programs
  The availability of non-technical training programs (supervisory and management development) is very limited, and there is no emphasis on recruiting graduates with general Business or Marketing Degrees. A broad-based business capability will be required as ARENTO transitions to a more mature and competitive operating environment.

- Shortage of Non-Technical Curriculums
  Universities in Egypt do not offer curriculums in Human Resources, Marketing and Finance.

- NTI - A Subset or Counterpart of ARENTO
  The National Telecommunications Institute (NTI) is a very strong resource for technical and management instruction. They have 34 courses and five departments covering Transmission, Switching, Electronics, Computers/Systems and Network/Project Management. They offer a two year post-graduate certificate which can be applied to a Masters Program. Approximately 500 Engineers per year attend NTI from ARENTO. NTI is generally expected to train top ARENTO Engineers prior to promotion. The capabilities of this Institute should be considered within the overall training plans of ARENTO. NTI is not part of the current ARENTO organization.

Key Recommendations

- Conduct a Process Assessment Study — A
  Conduct a Process Assessment Study to establish five-year staffing plans with objectives and programs to satisfy key business processes. Coordinate the staffing plan with the Social Fund to assist displaced employees, if any, and with training plans to upgrade overall skill sets. Additionally, the "Process Assessment Study" results could then be used to create an optimum organizational structure. ARENTO will require assistance to complete a Process Assessment Study.

- Enhance Policies Governing Employee Matters — A
  Update Ministerial Decree 200 that was last revised in 1982, covering employee matters:
  - Enhance basic salary ranges to a level that is competitive with other government sectors in Egypt such as Suez Canal and Egypt Air
  - Change basic salary levels annually based upon changes in cost of living and competition
  - Establish a simple but equitable process for distributing merit increases (incentives) and bonuses based on performance evaluations when compared with achievement of quantifiable performance objectives
  - Allow for promotion based on demonstrated and tested efficiency and aptitude rather than time on the job
  - Establish a minimum 3 step progression within the technical engineering and computer programming disciplines
  - Update processes based on exit interviews with personnel that leave the company

- Give the supervisors the flexibility to release non-productive employees after 18 continuous months of weak performance

- Expand Non-Technical Training A
  Establish supervisory and managerial training programs and executive development seminars for general business management, marketing, sales, economics, finance, project/program management, performance evaluations, wage and salary administration, supervisory training, product life cycle management, advertising and promotion, money and banking, international finance, auditing - internal controls, strategic business planning, tactical planning, information sciences, systems design and development, behavioral science, technology development, team building and total quality management (TQM). ARENTO will require assistance to develop and expand non-technical training programs and executive seminars.
  - Provide either basic appreciation or working knowledge instruction depending on the job
  - All employees of Degree 3 and higher should be required to attend
  - Consider NTI Resources to initiate training in areas where no skill-sets exist within ARENTO
  - Expand the scope of NTI training to provide higher levels of instruction

- Expand Training on Specific Switches A
  Implement in-house training for the AT&T 5ESS, Siemens EWSD and CIT Alcatel E10B switch as for engineering, maintenance and execution personnel.

- Expand Non-Technical University Curriculums A
  Work with universities in Egypt to develop curriculums for Human Resources, Marketing, Finance and Computer Sciences. ARENTO will require assistance to work with Egyptian Universities to develop non-technical curriculums.

Planning and Management Assessment

Major Findings and Conclusions

- Planning Processes
  The ARENTO Cost of Service/Rate Study revealed that the planning processes within ARENTO are limited in scope and where they do exist are, to a great degree, disjointed and informal. The primary reason for this is the fact that ARENTO's funds are used by other ministries to finance non ARENTO projects. There is a belief that more comprehensive and formal planning (realistic revenue and earnings forecasts and supporting budgets) will result in an increase in the transfer of funds from ARENTO to other ministries. Another principle reason for this is the fact that the GOE exercises its ARENTO oversight responsibility at a detailed operational level involving the review and approval of job design, organizational structure, projects, revenues, wages and salaries, incentives, bonuses and other operating expenses rather than at a strategic planning level.

- No Performance Objectives; No Strategic Planning
  Neither performance objectives nor strategic planning exist as the basis for the ongoing planning and management of ARENTO.

- Linkages Between Employee Performance and Company Objectives
  Individual groups have established de facto standards for employee performance evaluations but they do not link to broader company-wide objectives.

- Limited Operations Planning
  Current operation planning consists primarily of network construction plans and an annual income statement. The only identified planning for company direction and overall resource requirements is through the various Committees (Appendix C) in conjunction with the annual budgeting process.

- Limited Network Architectural Planning
  The planning, coordination and introduction of new technologies and standards into Switching, Transmission and Outside Plant is done independently within those areas, without the benefit of an Architectural Plan for the overall National and International Networks. A "Strategic" Network Plan would ensure that the overall architecture meets critical national and international requirements and capitalizes on evolving technologies in meeting cost and quality performance objectives.

- Informal Planning
  The Vice Chairmen have broad latitude for objective-setting and prioritization within their Sectors. This "personalization" of the programs within the Sectors leave them vulnerable to changes in Vice-Chairmen assignments and may not provide the best long-term utilization of resources.

- Limited Market Planning
  Situations frequently occur where network capacity is not available or is severely mismatched to demand. The availability of demand analysis through an effective Market Planning Process should provide the basis for new network capabilities, timing and capacity.

- Limited Fault Locating Centers Planning
  The Fault Locating Centers have been established under the Zones without the benefit of an overall plan. Although they support the day-to-day repair process, an improved planning and management of these operations could transition their operation to proactive maintenance capabilities.

- Information Management and Systems Planning
  A plan has not been established for the overall incorporation of computerization within the ARENTO processes. Although there are several systems identified for implementation, the introduction of these systems appears to be discretionary for the Sectors. Also, the inter-networking and integration of the systems have not been considered within the current implementation planning.

- Information Planning
  The information required for planning within all Sectors has not been formally identified. This will be a critical success factor in establishing effective planning in all areas.

- Establish Strategic Business Planning Process A G

  It is recommended that ARENTO start, as soon as possible, to develop and implement a strategic business planning process. The first step in the process would consist of the development of a "Mission Statement" that would describe what ARENTO wants to be as a telecommunications provider in the future. The second step would consist of the development of "goals" and "objectives" for the organizational entity that are short-term (one year), near-term (two to five years), and long-term (five to twenty years or more). The third step would include the development of "tactical plans" that are specific and describe who, what, when and how the overall organizational entity's "goals" and "objectives" are going to be met. Tactical plans would be developed for each line and staff department (sector) and would involve all employees in the sector. The fourth step would involve synthesizing and combining the tactical plans into well coordinated and integrated short-term, near-term and long-term "operating plans" for the organization. Short-term operating plans are monthly plans developed for a rolling thirteen month period. Near-term operating plans are annual plans developed for a rolling five year period. Long-term operating plans are five year plans developed for a rolling twenty year period. The fifth step is to summarize the operating plans into a comprehensive "Strategic Business Plan" for the future that is focused on accomplishing the "mission" with defined movement towards reaching specific organizational "goals" and "objectives". The "Strategic Business Plan" would include:

Year 1	Annual Plan by Month	(Short-Term Plan)
Year 2	Annual Plan	(Near-Term Plan)
Year 3	Annual Plan	(Near-Term Plan)
Year 4	Annual Plan	(Near-Term Plan)
Year 5	Annual Plan	(Near-Term Plan)
Year 6-10	Second Five Year Plan	(Long-Term Plan)
Year 11-15	Third Five Year Plan	(Long-Term Plan)
Year 16-20	Fourth Five-Year Plan	(Long-Term Plan)

  The sixth step is to implement and manage the Plan on an on-going basis. This involves monitoring results and modifying, changing and updating the plans for the future. The entire exercise of developing a "Strategic Business Plan" will help focus the attention of all employees at all levels throughout the organization on the "mission" and the "goals" and "objectives" that are to be achieved. Most importantly, it is a team building and consensus creating mechanism that integrates the efforts of all departments (sectors) and employees towards goal attainment and becomes the basis for measuring individual and organizational accomplishments and failures.
  In summary, establish tactical plans for marketing and customer service, rates and tariffs, network engineering, operations, construction (execution), information systems, human resources and finance which are linked together through the common business goals and objectives of the strategic business plan. These plans can then be compared with and monitored based upon the National Telecommunications Policies of the GOE and the National Telecom Plans established by the ARECC. ARENTO will require assistance in developing a strategic planning process.

- Plan and Manage Based on Goals and Objectives A

  Establish annual goals and objectives for each of the next five years as the basis for planning, management and allocation of resources.

- Include Economic Analysis in Selection of Decision Alternatives A

  Incorporate the use of economic analysis in the evaluation of plan alternatives to establish long-term direction which will provide meet overall financial objectives.

Profitability and Self-Financing Assessment

The recommendations in this category involve how ARENTO can encourage the participation of the private sector in purchasing bonds and other financial instruments. Additionally, these recommendations include related finance and accounting recommendations from the Cost of Service/Rate Study. For a complete definition of the financial terms used in this section the following "Glossary of Terms" is provided:

GLOSSARY OF TERMS

Accumulated Depreciation - Depreciation is recorded monthly to recognize the physical deterioration and/or consumption of fixed assets that are utilized in the production of goods or the provisioning of services to produce revenue. The accumulated depreciation account represents the cumulative balance of depreciation of an asset since its acquisition. The accumulated depreciation for an asset should be removed from the accounts when the asset is retired.

Accumulated Provision for Bad Debts - At any point in time, a portion of the accounts receivable of an entity represents amounts which will not be collected, thus becoming bad debts. The entity, however, is not able to identify the specific bad accounts. To account for this, the entity periodically records a provision for bad debts as an expense. The cumulative amount of these provisions is carried in an account entitled Accumulated Provision for Bad Debts.

Acid Test - Is sometimes called the quick ratio and is identical to the current ratio except that the numerator is reduced by the value of inventory. The reason for subtracting inventory is that it frequently is illiquid. The formula for determining the quick ratio can be expressed as follows:

$$\frac{\text{Current Assets - Inventory}}{\text{Current Liabilities}}$$

Average Collection Period - Provides information about a company's accounts receivable management. Results from the equation below can be interpreted either of two ways-it indicates the firm has X days worth of revenues tied up in receivables or the average time lag between the sale and the collection of cash for the sale is X number of days. The average collection period is calculated as follows:

Accounts receivable/revenue per day

Capitalization - consists of the ownership investment in the entity, earnings retained in the business, and long-term debt incurred to provide funds necessary to carry on the business.

Consolidated Financial Statements - The method of presenting financial statements wherein the parent company and its controlled subsidiaries' assets, liabilities, income and expenses are combined and shown in total. Inter-company accounts receivable and payable and income and expense transactions between two or more of the consolidated entities are eliminated in the consolidated financial statements.

Current Ratio - Compares the assets that will turn into cash within the year to the liabilities that must be paid within the year. A company with a low current ratio lacks liquidity in the sense that it cannot reduceits current asset investments to supply cash to meet maturing obligations. It must rely instead on operating income and outside financing. The formula for determining the current ratio can be expressed as follows:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Equity Method Financial Statements - The method of presenting financial statements wherein the parent company shows its share of the earnings of such subsidiaries as a single line item in its income statement. Under this method, the individual assets and liabilities and the individual components of income and expense of the subsidiaries are not shown in the parent company financial statements.

Fixed Charge Coverage - Measures the financial burden placed on a company by its use of leverage by comparing earnings before interest and taxes to annual interest expense obligations. It is defined as follows:

$$\text{Fixed Charge Coverage} = \frac{\text{Earnings Before Interest \& Taxes}}{\text{Interest Expense}}$$

Imputed Interest - The procedure prescribed within the Egyptian Unified System of Accounts whereby, in addition to interest actually paid, an imputed amount is recorded in the accounts as an operating expense and as non-operating income (having no effect on net income). It is calculated in a manner which assumes that all of the entities' assets other than land and buildings, net of all liabilities other than long-term debt, are financed by debt bearing an interest rate equal to that of the Egyptian Central Bank.

Imputed Rent - The procedure prescribed within the Egyptian Unified System of Accounts whereby, in addition to rent actually paid, an imputed amount is recorded in the accounts as an operating expenses and as non-operating income (having no effect on net income). It is intended to reflect operating expenses as if the entity owned no buildings, but paid rent for those buildings which it actually owns.

Inter-company Receivables and Payables - amounts owned by one member of a controlled group of companies to another member of the group.

Internal Cash Generation or Internally Generated Funds (IGF) - Funds provided to an entity through the operation of its business. This is generally calculated by adding back to net income charges for depreciation, additions to reserves and other charges to income which do not involve an expenditure of cash.

Leverage - Is that portion of a firm's capitalization that is financed with debt or stated another way, it is the substitution of debt for equity in a company's capital structure. The most common way to measure leverage is to compare the company's liabilities to their assets. This gives rise to the debt-to-assets ratio and the debt-to-equity ratio, defined as:

$$\text{Debt to Assets Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Equity (Paid in Capital \& Reserves)}}$$

The first ratio indicates the percentage of debt that is used to finance assets. The second ratio says the same thing in a slightly different way: creditors supply X% of capital for each dollar of equity capital provided by the owners.

Liquidity - One determinant of a company's debt capacity is the liquidity of its assets. An asset is liquid if it can be readily converted to cash, while a liability is liquid if it must be repaid in the near future. It is risky to finance illiquid assets like fixed plant and equipment with liquid, short-term liabilities because the liabilities will come due before the assets generate enough cash to pay for them. A company that mismatches the maturity of its assets and liabilities in this manner must roll over, or refinance, maturing liabilities to avoid insolvency. Two common ratios intended to measure the liquidity of a company's assets relative to its liabilities are the current ratio and the acid test (see definitions above).

Return On Equity (ROE)- It is a measure of the efficiency with which the firm employs owners' capital. It measures the percentage return to owners on their investment in the firm, determined as follows:

$$\text{Return on Equity} = \frac{\text{Earnings}}{\text{Owners' Equity}}$$

Return On Investment (ROI)- It is a measure of the efficiency with which the firm manages its total resources. It differs from ROE because ROI measures profit as a percentage of total assets while ROE measure profit as a percentage of owners' equity.

Return On Sales - Reflects the degree of cost control in relationship to the management of the firms' pricing strategy. It is measured as a percent of each dollar of revenue that trickles down through the income statement to net income and is calculated as follows:

$$\text{Return on Sales} = \frac{\text{Net Income}}{\text{Revenue}}$$

Sustainable Growth Rate - Is the maximum rate at which a company's revenue can increase without depleting financial resources. The formula for determining the sustainable growth rate can be expressed as follows:

Retained Profits / Equity

or

Earnings Retention Ratio (Retained Profits/Profits) X Return on Equity

Major Findings and Conclusions

- ARENTO is Successful
  ARENTO is one of the more successful public sector companies in Egypt. Their customer base is growing which makes telephone service more valuable; access rates are low and substantially below cost; service levels are improving; waiting lists are declining and could be all but eliminated in 1996/1997; improvements are underway in network planning and there are profits available to finance other important social programs.

- ARENTO is a Victim of Success
  ARENTO, due to their past successes, is now at a critical junction point on several fronts. Profitability is declining, liquidity is imperiled, self-financing capability is decreasing and infra-structure changes are needed as ARENTO moves into an increasingly competitive global telecommunications arena.

- Profitability is Declining and Retention Rate is Low
  The assessment of the K&M team is that ARENTO has been and is now successful in terms of profitability. However, when looking out into the future, ARENTO's continued success is at risk due to a declining rate of profitability, a declining retention rate and a serious decline in working capital. The retention rate of "carried over surplus" is not sufficient to support the financing of growth that is needed to meet existing or future demand. Growth over the recent past and continuing into 1994 and 1995 is being financed with working capital, which has contributed to a serious decline in ARENTO's liquidity. Expenses have been increasing faster than changes in revenue thus resulting in a decline in the rate of profitability. The last general rate increase occurred in 1986/1987.

- Debt/Equity Ratio is High
  Over the longer term, additional equity or a significant reduction in debt (short term or long term) will be required to improve ARENTO's debt/equity ratio. Raising additional equity could be accomplished by creating a joint stock company for telephone operations and issuing preferred (non-voting) stock, common stock, bonds and convertible debentures. Additionally, in the longer term, long term bonds could be issued after improving debt capacity.

- GOE Investment Priorities are Uncertain
  The GOE and ARENTO may find it desirable to establish a national telecommunications policy consistent and integrated with the GOE's plans for market reform. It would then be possible, consistent with the goals and objectives established in the national telecommunications plan, to evaluate investment options and then decide, based upon social and political priorities how capital could be most economically utilized and allocated. This will determine if ARENTO will continue to progress to the status of a World Class Telecommunications Provider or regress and fail to meet demand now and in the future for telecommunications service. ARENTO's continued success is now at a cross-road. It is uncertain if the retention rate will continue to decline, level-off or increase which makes planning of future investments difficult.

- Financing of Future Growth is Uncertain
  A current situation is ARENTO's declining ability to finance the growth (construction of telephone plant facilities) that is needed to meet lines-in-service objectives for the current five year planning period of 1.6 million net new lines. ARENTO's declining ability to finance growth has arisen due to continuing increases in the transfer of "carried over surplus" to other government ministries and the assessment of income tax liabilities retro-active to 1981. In 1994, total transfer payments are estimate to be 70% of net income. The solution to this dilemma is dependent upon the development of a national telecommunications policy with plans and objectives for the development and growth of the telecommunications sector and the role telecommunications is expected to have in Egypt's market reforms. This policy should indicate the priority the GOE places on developing the telecommunication sector. Such a priority would then be useful in allocating capital and governing the level of transfer payments while at the same time paying income taxes.

  Any single action or a combination of actions would be desirable now to restore ARENTO's ability to meet existing and future demand for telecommunication services, improve declining profitability and working capital and enhance their self-financing capability. These actions include:
  - Increase revenue (marketing of new services and tariff changes) - see exhibit
  - Decrease expenses
  - Increase cash collections from an improved turnover of accounts receivable (government cuts)
  - Increase cash collections from more frequent billing
  - Decrease the payout ratio (limit payout ratio to 15%-25% of carried over surplus)
  - Decrease capital spending
  - Increase equity/decrease liabilities

- Effective Comprehensive Budgeting Could Enhance Financial and Operational Performance
  The current budgeting processes are complicated and rely heavily on negotiation to arrive at the final budget level. The Ministries of Finance, Planning and Organization & Administration are involved in the process after Board of Director approval and they normally make significant changes to the approved revenue and expense budgeted levels. For an example, the Ministry of Finance reduces the budget for Projects and Salaries each year with the understanding that ARENTO can spend what they need, provided the additional expenditures are covered from

additional incremental revenues over the approved level. This process requires funding of critical programs on a cash available basis and leaves ARENTO vulnerable to annual changes in revenues and cost increases. Most importantly, with this approach to budgeting, spending levels and targets move month to month depending upon available cash which makes operational planning difficult and strategic planning almost impossible.

Regarding Capital Spending Budgets, the Cost of Service/Rate Study (Section V) identified opportunities for additional annual revenues of about 24% though the commitment to construct an additional 1.6 million net new lines over the next five years. The construction program requirement of LE 4.8 billion can be funded from the existing five year budget and will generate a total increase in revenues of LE 2.3 billion over the current 1993-1997 Plan. This program will also eliminate the Waiting List for Primary Service and will require an aggressive marketing effort for vertical and enhanced services. To reach these objectives a commitment is required from the Ministries and ARENTO to construct an additional 1.6 million new lines.

- Incomplete Financial Plans and No Financial Plans Beyond One Year
  The Financial assessments completed in the Cost of Service/Rate Study identified that neither Balance Sheets, Income Statements nor Statement of Cash Flows are available for five-year plans. This information is desirable for developing a comprehensive long term financial plan and assessing ARENTO's overall financial position.

- Infrequent Billing Creates Perception that Telephone Service is Expensive
  Currently semi-annual billing is made for exchange and vertical services (in advance), calls in excess of call allowance (in arrears), service activation fees and national toll (in arrears) for residential customers. Although this semi-annual billing is an improvement over the annual billing that was used prior to July, 1993, more frequent billing would improve cash flows and most likely would reduce uncollectibles, and would reduce the perceived cost of telephone service.

- Revenue Planning is Short Term and Informal
  Formal pricing strategies do not exist to support the development or management of tariffs. This leaves ARENTO vulnerable to revenue short-falls and does not provide the long-run marginal cost analysis which is critical to overall business strategy development and planning within the sectors. The Cost of Service/Rate Study tested revenue performance relative to revenue requirements (including ROI of 14%) with Marginal-cost Modeling and identified a significant revenue short-fall in 1993, 1994 and 1995. Reference Section VI of that study for details regarding the revenue assessment.

  According to the Cost of Service/Rate Case Study, significant opportunities may exist for increased revenue generation through the elimination or reduction of "free-call" allowances while moving toward a full usage sensitive pricing environment.

- Pricing Reform
  The previous Cost of Service/Rate Study revealed that almost all ARENTO services require price reform. Although many were cognizant that pricing reform is critical to the future success of ARENTO, there is no formal process or mechanism in place to promote and implement pricing reform. Without price reform and with continuing increases in the transfer of funds to other ministries the continued expansion and maintenance of telecommunications facilities to meet existing demand is in jeopardy and the feasibility of attracting public sector investment is impossible.

ARENTO's profitability is very good but declining, however there are a few items that if implemented could improve an already very good performance. These items include:

- Increase Revenue-Tariff Changes/Improve Return on Investment and Equity
  Suggested possible options for changing tariffs as previously recommended in the Cost of Service/Rate Study are shown below:

ARENTO REVENUE GENERATION AND PROPOSED TARIFF CHANGE OPTIONS/ALTERNATIVES

	PRICE CHANGE			REVENUE	
	Current	Proposed	Change	1994	1995
Year 1					
Increase Unit Call Prices					
1-6 minutes call duration increment throughout Egypt where there are multiple exchanges within a zone	5p	10p	5p	165	185
1 - Unlimited call duration increment throughout Egypt where there is a single exchange within a zone	5p	10p	5p		
Increase Coin Call	10p	25p	15p	5	6
Increase Sales of Vertical Services				45	55
Year 2					
Reduce "free call allowance"				52	56
Residence					
Annually	1500	----			
Semi Annual	-----	600			
Quarter*	-----	300			
Monthly*	-----	100			
Net Change	-----		(300)		
Business					
Annually	300	----			
Semi Annual	-----	120			
Quarter*	-----	60			
Monthly*	-----	20			
Net Change			(60)		
Government					
Annually	1000	----			
Semi Annual	-----	420			
Quarter*	-----	210			
Monthly*	-----	70			
Net change			(160)		
Year 3					
Increase Subscription Fees				66	86
Residence	45	60	15		
Business	75	120	45		
Government	75	120	45		
TOTAL				333	388

* Applying the quarterly and monthly "free call allowance" is dependent upon installation of a new billing and collection data processing system.

- <u>Increase Revenues - Aggressively Market Vertical Services</u> A
  Based on findings in the Cost of Service/Rate Study and as confirmed with this assessment, an increased level of focus should be placed on marketing and customer service. This should stimulate sales of vertical and enhance services with only nominal increases in cost (expenses). Based on projections from the Cost of Service/Rate Study, additional revenue growth would be LE 25-40 million over the planning period.

- <u>Improve Liquidity</u> A
  Liquidity, as measured by working capital, is currently LE 2.0 billion negative. This means that current liabilities exceed current assets by LE 2.0 billion. Normally, in capital intensive companies such as ARENTO, it would be preferable to maintain an equal balance between current assets and current liabilities. In the near term, ARENTO should reduce current liabilities by LE 2.0 billion by placing additional attention and creativity on improving liquidity and working capital position:
  - Increase the uncollectible reserve to provide for future uncollectibles and a shorter write-off period
  - Increase frequency of billing - monthly cycle billing as opposed to semi-annual billing
  - Reduce accounts receivable through improved treatment and collection, especially related to government accounts receivable
  - Resolve the tax liability issue (offset prior transfers against the tax liability of LE 1.4 billion)
  - Reduce the pay-out ratio to no more than 25% of "carried over surplus"

- <u>Design/Install New Billing System</u> A
  Migrate billing and collection from semi-annual billing to monthly cycle billing. This would require the introduction of a comprehensive operationally integrated billing and collection system. ARENTO will require assistance in designing, building/or acquiring and implementing a new billing system.

- <u>Increase the Retention Rate</u> A G
  Reduce the payout ratio to maintain a sustainable growth rate of not less than the expected increase in revenues. Companies with high growth rates normally have pay-out ratios ranging from a low of zero to a maximum of 25%.

- <u>Increase Equity to Improve Debt/Equity Ratio</u> A G
  ARENTO has become and will remain dependent upon foreign aid (loans) until their "transfers" to the GOE are substantially decreased to a maximum of 25% of "carried over surplus". ARENTO's current earnings are sufficient to finance future growth, however, with the current 70% payout of earnings to the GOE (transfers) there is insufficient retention of earnings to finance future growth. Hence, ARENTO is dependent upon foreign aid (loans) for financing growth. This foreign aid is carried on the balance sheet as a long term loan from the GOE and is included along with other foreign loans that are negotiated directly between the GOE, ARENTO and foreign lenders. ARENTO does not record any foreign currency translation gains or losses on their Balance Sheet that arise from these foreign loans. The consultants have estimated that liabilities are understated by approximately LE 1.4 - 1.5 billion due to foreign currency exchange rate exposure. When including this additional liability, ARENTO is at, or near, its maximum debt capacity and to position ARENTO for the future and to reduce and preferably eliminate their dependence on foreign aid, equity needs to be increased. Initially, to improve the debt/equity ratio, the USAID grants to the GOE for telecommunication, that are subsequently loaned to ARENTO, could be transferred from debt to equity. This would have the impact of increasing equity, decreasing debt and decreasing interest expense. Subsequent grants, if any, could be made directly to ARENTO, thus increasing equity and avoiding debt. Later in Phase III, foreign aid grants (loans) could be eliminated as additional equity capital could be raised by forming a joint stock company and issuing preferred (non-voting) stock, common stock, bonds and convertible debentures.

- Decrease Liabilities to Improve Debt/Equity Ratio A M
  Liabilities that could be decreased include government held long-term and short-term debt. It is recommended that negotiations be conducted with the Ministry of Finance to use government accounts receivable as off-set against long-term liabilities. Other short-term debt that could be converted to equity includes the outstanding tax liabilities that could be off-set against previous transfer payments.
  - Resolve the outstanding tax liability issue negotiation to off-set previous transfers against the outstanding tax liability.

- Enhance Budgeting and Develop Strategic Business Planning A
  Enhance the budgeting process and develop a strategic planning program that provides specific goals and objectives along with realistic and attainable projections/forecasts of revenues, expenses and capital spending. ARENTO will require assistance to enhance their budgeting processes, related data systems and in developing strategic business plans.
  - Develop and publish a complete set of financial statements-balance sheet, income statement and source and use of funds statements-in conjunction with annual budgets and for each year of the five year strategic business plans.

- Use Five Year Strategic Plan as the Vehicle to Facilitate Government Oversight Responsibilities and to Secure Appropriate GOE Approvals A M
  Within the spirit and intent of Public Law 153, develop an annual five year strategic business plan consistent with the national telecommunications policy and ARECC Telecom plans that can be approved and evaluated annually by the various Ministries.
  - To increase productivity and efficiency, replace the annual government budget reviews (revenues, expenses, salaries, organization and capital spending budgets) with submission of a rolling annual five year strategic plan. The GOE could then evaluate ARENTO based on results achieved compared to the goals and objectives agreed upon in the strategic plan.

- Broader Financial Management Functions A
  Development of a broader level of financial management skills including expansion of the treasury function to cover capital structure, cash management, foreign currency hedging, funds flow planning, coordination and follow-up on the collection of accounts receivable and securities and debt negotiation would be desirable.
  The treasury functions would have the primary responsibility to plan and manage cash, debt, equity (capital) and collections. This would include developing the in-house skills to secure and negotiate debt terms and provisions related to self-financing and in effect encompasses the management of the short and long-term capital (equity and liabilities) and cash positions of the corporation on a sound commercial financial management basis. This will increase profits through the development and maintenance of a more optimum capital and cash position and includes the management of exposure to foreign currency translation gains and losses. ARENTO will require assistance in identifying and setting up these financial functions.

- Increase Frequency of and Consolidate Billing A
  Establish a plan to integrate customer charges into a single, monthly billing for Local, National and International Services. Smaller bills issued monthly stimulates the perception that telephone service is a real value, which will decrease uncollectibles and will improve cash flows.

- Establish Pricing Strategies and Conduct Formal Revenue Planning A
  Establish pricing strategies using marginal-cost assessments and incorporate those strategies into the overall strategic planning processes of ARENTO. A goal could be established and evaluated to reduce and/or eliminate "free-calling" and migrate to full usage sensitive pricing over the next five years as recommended in the Cost of Service/Rate Study.

1.1 IMPLEMENTATION GUIDELINES

Action Plan Reform Timelines

A realistic timeline for the accomplishment of the three phased approach is shown below. The first phase should not be hindered by any major barrier since the autonomy of ARENTO can be achieve largely by a single decree by the Minister of Communications to conform with the spirit and intent of the existing law. The entire year of Phase I can essentially be used to preposition legislative and legal changes that will be required to implement the ARECC along with organizational and financial positioning changes. Staffing the ARECC to adequate levels with the appropriate candidates may require one year to eighteen months. As a result, Phase II may require two years to complete.

In Phase III, ARECC is operational, ministerial decrees are in place, organizational changes have been completed and ARENTO's financial position will be "investment grade". Most importantly, "telephone operations" will be functioning with a strategic business planning process and will be well positioned for the future as a commercially functioning organization.

Implementation guidelines have been segregated into manageable segments and have been categorized as follows:

- Regulatory and Legal Framework
- Organization Structure
- Employee Staffing and Development
- Planning and Management
- Profitability and Self-Financing

26

REGULATORY AND LEGAL FRAMEWORK

1994 - 1995
Phase I
"Positioning for the Future"

- ARENTO Budgets/Plans approved by Board of Directors & Minister of Communications
- NTI Advisory Group Established to assist the Minister of Communications
  - Develop National Telecommunication Plan Outline
  - Begin Telecom Database Development
  - Detail Telecom Oversight Activities
  - Consider Competition and New Market Participants
- Minister of Communication begins framing decree to create ARECC
- Minister of Communication begins framing changes to decrees to promote ARENTO autonomy
  - Change Board membership
  - Change reporting responsibility to President or the Prime Minister

1995 - 1997
Phase II
"Implementation Stage"

- Establish ARECC with Communication Minister as Chairman
- NTI appointed formally as commission staff
- Other Communication Public & Private Sector Firms fall under ARECC Preview
- Establish Telecommunication standards
- Complete Egyptian National Telecommunication Plan
  - Service Pricing
  - Network/Technology Evolution
  - Disaster Recovery
  - Commercialization Schedule
- Create autonomous unit within ARENTO for "Telephone Operations"
  - Expand interest groups on Board of Directors
  - Government held corporation
  - Issue preferred stock and declare dividends

1997 - 1998
Phase III
"Positioned for Excellence"

- ARECC effectuates Telecom sector policies, goals and objectives on an on-going basis
- Monitors Telecom performance & standards
- "Telephone Operations" functions as a world class telecommunications provider in a global and increasingly competitive market arena. Quickly adapts to changes.

ORGANIZA[illegible] STRUCTURE

1994 - 1995 Phase I "Positioning for the Future"	1995 - 1997 Phase II "Implementation Stage"	1997 - 1998 Phase III "Positioned for Excellence"
• Initiate Process Re-engineering	• Complete Process Re-engineering	• Implement new organization
• Expand Functions Associated with: - Marketing & Customer Service - Treasury - Budgeting	• Establish Functional Organization Structure Based on Results of Re-engineering Study	
• Establish New Functions Associated with: - Strategic Business Planning - Network Architecture Planning - Depreciation Studies	• Establish New Functions Associated with: - Government and Public Affairs	
• Centralize Staff Functions Associated with: - Inspections (Auditing) - Human Resources - Contract Administration		
• Establish Board of Managers		

EMPLOYEE STAFFING AND DEVELOPMENT

1994 - 1995
Phase I
"Positioning for the Future"

- Update Ministerial Decree 200 for the development and administration of wages, salaries and employee benefits including incentives and bonuses
- Expand Non-Technical training programs to support staff related business functions
- Expand executive development seminars to create a broader business perspective
- Work with Universities to expand curriculums related to Marketing, Human Resources, Finance and Behavioral Sciences. Use foreign services where appropriate.

1995 - 1997
Phase II
"Implementation Stage"

- After completion of re-engineering study, develop and begin the implementation of a Five Year Staffing Plan (if staff reductions are required, develop responsible and socially acceptable plans for downsizing)

1997 - 1998
Phase III
"Positioned for Excellence"

- Implement staffing plan

28

PLA G AND MANAG T

1994 - 1995
Phase I
"Positioning for the Future"

- Establish Strategic Planning Process
- Establish/Clarify Business Goals and Objectives
- Initiate Training of Planning Personnel in Economic Analysis and Depreciation Studies

1995 - 1997
Phase II
"Implementation Stage"

- Implement the Strategic Planning process with goals and objectives for each functional area
- Implement Technology Planning function
- Operations Plan completed based on Process Studies

1997 - 1998
Phase III
"Positioned for Excellence"

- Maintain and monitor on-going Planning Processes

PROFITABILITY AND SELF-FINANCING ASSESSMENT

1994 - 1995
Phase I
"Positioning for the Future"

- Billing Strategy and Policy approved for single monthly bill to all customers by 1998.
- Quarterly billing implemented in line with capabilities
- Pricing strategy and Program approved with goal of full usage sensitive pricing
- Implementation initiated to change tariffs with tracking of customer response
- Develop a formal process for proposing rate and tariff changes
- Place an increased level of focus on marketing vertical and enhance services to increase revenue growth.

1995 - 1997
Phase II
"Implementation Stage"

- Capabilities for integrated monthly billings available in all locations
- Marginal cost concepts implemented for new services
- Raise additional equity capital by forming a joint stock company and issuing preferred (non-voting) stock and/or bonds.
- Create a group that has the primary responsibility to plan and manage cash, debt, equity (capital) and collections.
- Develop a five year strategic business plan consistent with the national telecommunications policy for the country of Egypt that can be approved once every five years and subsequently evaluated annually by the various Ministries.

1997 - 1998
Phase III
"Positioned for Excellence"

- Complete Implementation of monthly integrated billing to all customers
- Usage sensitive service pricing implemented to all customers

ABILITY AND SELF FINANCING ASSESS

1994 - 1995 Phase I "Positioning for the Future"	1995 - 1997 Phase II "Implementation Stage"	1997 - 1998 Phase III "Positioned for Excellence"
• Raise additional equity capital by swapping debt from the GOE for prior USAID grants that are carried as long term liabilities on ARENTO's balance sheet. Future grants could be made directly to ARENTO. • Place additional attention and creativity on reducing accounts receivable balances to improve liquidity and working capital position. • Use government accounts receivable as off-set against long-term liabilities. • Develop annual financial statements-balance sheet, income statement and source and use of funds statements-in conjunction with annual budgets and five year strategic business plans. • Reduce the payout ratio to maintain a sustainable growth rate of not less than the expected increase in revenues. • Increase the uncollectible reserve. • Reduce accounts receivable through improved treatment and collection.		

31

SECTION 2 INTRODUCTION

The U.S. Agency for International Development (USAID) has made a major commitment to assist in the development of Egypt's telecommunications sector, which is regarded as having a key role in the country's overall economic development. Since 1978, USAID and the Government of Egypt (GOE) have jointly implemented a total of four projects (Telecommunications I, II, III and IV) in the telecommunications sector, totaling $324 million. Another $83 million in microwave equipment and switching systems have been imported to Egypt from the United States through USAID's Commodity Import Program since 1977.

The Egyptian telecommunications sector currently faces a number of constraints that increasingly impede the long term development of the sector and which currently reduces the network's overall efficiency. Broadly, these constraints involve: policies related to economic pricing of telecommunications services; internal cash generation and self-financing of network development, institutional issues relating to the development and retention of technically qualified and experienced staff; and technical issues caused by the complex interface requirements resulting either directly or indirectly from the policy and institutional constraints.

Increased investment requirements and improvement in overall telecommunications service, as well as changes in telecommunications sector policies and institutional structure, are necessary to meet the large demand for telecommunications services in Egypt. These changes are significant and have equally significant political, legal and financial ramifications that will lead to new institutional, legal and regulatory frameworks. Therefore, a comprehensive examination and assessment of the Egyptian telecommunications sector was undertaken to determine the nature of changes to be made, the form they should take, and how and when these changes might be implemented. Emphasis was placed on recommendations that would enhance the efficiency of the telecommunications sector by increasing institutional and fiscal autonomy, thereby improving the institutional capabilities of ARENTO.

USAID, with the approval and cooperation of ARENTO, the Ministry of Telecommunications and the Ministry of International Cooperation, contracted with K&M Engineering and Consulting Corporation (K&M), Washington, D.C., to undertake the examination and assessment of the Egyptian telecommunications sector. The proceeding assessment and report are entitled "**POLICY REFORM AND INSTITUTIONAL DEVELOPMENT ASSESSMENT**". Herein are the cumulative analysis, findings, conclusions and recommendations of a professional team of fourteen (14) telecommunications experts with a combined total of about two hundred (200) years of a broad array of national and international telecommunications experience. In addition, six (6) legal advisors including a senior partner and four (4) associates from the Shalakany Law Office (Cairo, Egypt) were an integral part of the overall project team that totaled twenty (20) professionals.

SECTION 3 OBJECTIVES OF THE EXAMINATION AND ASSESSMENT

The objectives of the assessment were to: (1) identify those specific regulatory, legal and institutional constraints that if uncorrected would impede the development of the telecommunication sector; and (2) develop an array of recommendations that if implemented individually, in any combination or in total, would enhance the institutional capability of ARENTO to:

(a) meet increasing demand, while at the same time attaining a degree of financial independence;
(b) operate on a commercial basis and be able to finance its capital expansion programs without relying on grants and soft loans from outside donors or the infusion of funds from the general GOE budget or other Egyptian governmental agencies; and
(c) retain its qualified experienced personnel and motivate them to achieve higher levels of performance.

3.1 General Requirements

To perform the examination and assessment and to arrive at concrete recommendations, the following three major areas were examined:

3.1.1 Regulatory and Legal Framework

Based on the regulatory and legal issues defining the relationship between ARENTO and the GOE, the assessment was to determine how the telecommunications sector could be restructured to give it more independence and, at a minimum, more clear cut accountability.

3.1.2 Organizational Structure and Operations

- Based on the present staffing, personnel policies and compensation levels the assessment was to determine ARENTO's human resource requirements, including the recruitment, training and proper compensation policies needed to enhance productivity and efficiency; and to avoid the loss of productive, high potential personnel.

- Provide recommendations on ways and steps to improve the personnel system.

3.1.3 Profitability and Self Financing

The assessment was to determine how ARENTO could encourage the participation of the private sector in the purchasing of bonds and other financial instruments that could be issued by ARENTO and assess the related legal ramifications, if any.

3.2 Detailed Scope of Work

The K&M Team, in carrying out the examination and assessment conducted nine (9) primary tasks as outlined below:

3.2.1 Workplan

- The K&M project team prepared a general workplan and a detailed workplan, within 3 weeks after mobilization in Cairo, for USAID and ARENTO review and approval, setting forth the sequence of work activities and a time schedule for attaining critical milestones.

- The K&M project team performed mobilization activities and identified high level Egyptian officials and GOE resources necessary to carry out the work activities.

3.2.2 Data Requirements

The K&M project team identified data requirements, assembled documents and information pertaining to:

- financial operating results;

- the legal and regulatory framework of the telecommunications sector;

- any applicable laws or decrees impacting ARENTO;

- any tariff studies in progress or completed;

- the Operation and Maintenance study conducted by Teleconsult Inc. and Harza Engineering;

- the Cost of Service/Rate Study conducted by K&M Engineering and Consulting.

In parallel with the assessment of policy, legal and institutional factors, a thorough review of previous related studies/assessments was made, and the findings and recommendations were integrated where appropriate, into this final report.

3.2.3 Regulatory and Legal Framework

The K&M project team reviewed and analyzed the existing laws, policies, procedures and regulations in the telecommunications sector and identified issues, opportunities and impediments which affect the telecommunications sector to determine the changes necessary to increase the efficiency with which the sector operates. This review included:

- the present Egyptian regulations concerning the telecommunications sector in Egypt, identifying any restrictions or limitations to the most efficient provision of telecommunications services;

- the legal and regulatory framework, to determine the extent of ARENTO's current autonomy, especially as it relates to financial performance and its ability to determine tariffs and retain revenues and its ability to retain its own revenues and use them in the telecommunications field and recommendations and steps of improving;

- the legal framework under which ARENTO has been established;

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- other regulations and decrees under which ARENTO operates; and
- the need to establish a relevant governmental institution with regulatory jurisdiction over the telecommunications sector that would be responsible for determining the reasonableness of rates, quality of service and utility operations for the telecommunications sector.

3.2.4 Organizational Structure and Operations

The K&M project team reviewed the existing organizational structure of the telecommunications sector including the Ministry of Telecommunication's relationship with ARENTO and assessed other institutions which directly or indirectly affect the telecommunications sector. Focus was placed on identifying those areas where changes could enhance efficiency, flexibility, overall system reliability, cost savings and increased revenue generation.

The following aspects were given particular attention:

- personnel policies and compensation levels;
- organizational development plans and objectives;
- management and executive development programs and objectives;
- skill development training programs and facilities; and
- the ability of ARENTO to recruit and retain qualified personnel.

3.2.5 Profitability and Self Financing Assessment

The K&M project team reviewed the profitability and self-financing capacity of ARENTO along with the findings of the pricing study to assess ARENTO's capability to encourage the participation of the private sector in financing future expansions. The project team also reviewed the effects of ARENTO's current and proposed future tariff rates on future profitability in order to assess the future prospects of ARENTO's financial independence.

3.2.6 Recommendations

Based on the work activities above, the K&M project team developed recommendations which would enhance autonomy and financial viability necessary to increase interest in investment and expansion of the telecommunications sector. The recommendations include:

- changes in policy/regulation;
- organization of operating functions;
- operating procedures;
- relationship among institutions;
- delineation of a plan to implement and integrate the recommendations;
- tentative schedule for implementation;
- quantification, where appropriate, of benefits of proposed changes; and
- possible participation of the private sector in telecommunications sector.

Finally, the recommendations conclude with the detailed presentation of recommended policy and institutional reform measures.

3.2.7 Draft Final Report

The K&M project team integrated the findings of this assessment together with the findings of the pricing and the operation and maintenance studies, reconciling any inconsistency between them and prepared and distributed draft interim reports, including an executive summary, outlining findings and recommendations.

3.2.8 Presentation of Findings

The K&M project team met with ARENTO and USAID as requested to answer specific questions and clarify the contents of the draft interim reports as required.

The K&M project team organized and conducted a presentation of the assessment at the Meridien Hotel in Cairo. The presentation was for representatives of MTCMT, ARENTO, other GOE organizations designated by the Ministry or ARENTO and USAID, and other donors designated by USAID. The presentation emphasized the study methodology, major findings and recommendations, and long range plans involving policy reforms and institutional development that would allow the telecommunications sector to grow to meet increased demand, while attaining a high degree of financial independence.

The K&M project team prepared and conducted briefer presentations for the senior management of ARENTO and USAID emphasizing the major conclusions of the assessment, recommendations and the long range plan involving reforms and institutional development.

3.2.9 Final Report

The K&M project team incorporated all appropriate clarifications and suggestions arising from various presentations, discussions and document review into this final report.

SECTION 4 REGULATORY AND LEGAL FRAMEWORK EXAMINATION AND ASSESSMENT

4.1 SUMMARY

- The ARENTO Cost of Service/Rate Study revealed that the planning processes within ARENTO are limited in scope and where they do exist are, to a great degree, disjointed and informal. The primary reason for this is that ARENTO's funds are used by other ministries to finance non ARENTO projects. There is a belief that more comprehensive and formal planning (realistic revenue and earnings forecasts and supporting budgets) will result in an increased transfer of funds from ARENTO to other ministries.

- The previous Cost of Service/Rate Study revealed that almost all ARENTO services require price reform. Although many were cognizant that pricing reform is critical to the future success of ARENTO, there is no formal process in place to promote and implement pricing reform. Without price reform and with continuing increases in the transfer of funds to other ministries, the continued expansion and maintenance of telecommunications facilities to meet existing demand is in jeopardy and the feasibility of attracting public sector investment is impossible.

- Under Public Law 153, ARENTO was granted the exclusive responsibility for the establishment and operation of the national telecommunications network and for international interconnection within the general framework of the National Telecommunications Policy of the Government of Egypt (GOE).

- In all matters dealing with national and international telecommunications services ARENTO is legally autonomous. It is chartered to invest its resources to further its stated telecommunications sector goals and can organize and enter joint agreements with other corporations to achieve its objectives. This autonomy has been restricted and reduced by the intervention of various ministries.

- Public Law 153 is an excellent law that needs to be fully implemented as it was originally written and intended. Today, the law as it is currently administered, presents three significant challenges that must be overcome if Egyptian telecommunications is to move forward and keep pace with changes occurring throughout the rest of the world. Additionally, these challenges must be met if ARENTO is to successfully participate in Egypt's stated policy of market reform.

    - *Opportunity 1*
      There are no codified national telecommunications policies, plans or objectives for the country of Egypt. Under Public Law 153, it was envisioned that a general national telecommunications policy (with long range plans and objectives) would provide the guidance and framework within which ARENTO would carryout its responsibilities. To the extent that a national telecommunications policy exists, it is informal, disjointed and is not comprehensive.

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- *Opportunity 2*
  The spirit and intent of Public Law 153 has been compromised. ARENTO has delegated authority, either formally or informally, over such matters as organizational structure, job design, wages, salaries, bonuses, incentives, tariff changes, retention of funds and construction financing to other ministries. This delegation of authority has created major administrative bottlenecks that seriously constrain and restrict the ability of ARENTO to carry out the responsibilities they are legally mandated to fulfill.

- *Opportunity 3*
  ARENTO, as it is currently organized and structured, has dual and conflicting roles. ARENTO is both regulator and regulatee.

- A premise of this study is that ARENTO's authority in areas of pricing, service standards and market entry should be exercised by a regulatory body that is separate and distinct from the provisioning of telecommunications services. The regulatory body would provide focused participation in addressing issues in these areas as well as protecting and serving the public interest. This authority should be taken from the hands of other ministries and vested in a regulatory body until these characteristics are eliminated through competition.

- A formal national long-term telecommunications policy with goals and objectives should be established and codified to promote the optimal evolutionary path for the country's telecommunications industry and provide the infrastructure and guidance to ARENTO's telephone operations in meeting the needs of the Egyptian public. A regulatory body with appropriate national interest and industry perspective should be responsible for developing the national telecommunications sector plan with subsequent approval by the People's Assembly.

- Two primary aspects of the proposed sector reform are required for improving the outlook in Egyptian telecommunications investment. First, ARENTO requires autonomy. The enterprise needs to repair its internal processes that have been unlinked through ministerial intervention. This requires Public Law 153 to be administered as intended and written. Second, a well focused countervailing power within the autonomous ARENTO must be put in place to create a framework for Telecom sector participation. This will be a key to ensuring that commercialization brings the best results to Egypt.

- The implementation of these two facets of the prescription for reform should take place in a three phased approach over a period not to exceed four years. In Phase 1, the spirit and intent of the existing law should be followed and enforced with intervening decrees overridden to provide autonomy for ARENTO. The groundwork for separating regulator and regulatee functions for the telecommunications sector should also be developed in Phase I.

- In Phase II, separating regulator and regulatee functions would be implemented with creation of a joint stock company for telephone operations and creation of a regulatory body to carry out the national telecommunications policies of the GOE. This facilitates further movement toward commercialization of ARENTO telephone operations by adopting a government held corporation as permitted under Public Law 153 and creates a countervailing power to protect and serve the public interest. The cornerstone of Telecom sector success will be in the form of an industry oversight body called the Arab Republic of Egypt Communications Commission (ARECC). Both organizations, the telephone operations unit and the ARECC, would be established under the authority granted to ARENTO under Public Law 153.

- The ARECC should regulate to the extent that basic and enhanced telecommunications services are developed and provided to meet existing and anticipated demand for such services by the people of Egypt. This is to be achieved by regulating only the essentials-basic service prices and Telecom sector plan development which will ensure that competitive prices and service levels are achieved. In Phase III, the stage is set for telecommunications attraction of private investment that will benefit the consumers, employees of ARENTO and the Government of Egypt.

- The role of the Ministry of Communications is enlarged and takes on added significance in becoming the focal point for the GOE's national telecommunications policy.

- Specific changes to existing decrees are identified which slightly alter the role that other ministries in the GOE assume in the telecommunications sector. In addition, the responsibilities of a five member Commission and its supporting staff are described. The establishment of this Commission will require a shift and refocus of existing telecommunications sector resources.

4.2 INTRODUCTION

This study is a follow on to the previous analysis of the Arab Republic of Egypt National Telecommunications Organization (ARENTO) service cost and rate structure conducted for USAID by K&M Engineering and Consulting. In Tasks 5 and 6 of the previous study, it was discovered that many, both within and outside of ARENTO, believed that pricing reform for basic services is required. This belief was reinforced by the K&M Team's long run incremental cost analysis that revealed that a doubling of annual residence and business local access rates may be desirable to eliminate the subsidies from international and national toll services. Although many were cognizant that pricing reform is critical to the future of ARENTO, there is no mechanism in place to promote and implement pricing reform.

In addition, Task 3 of the ARENTO Cost of Service/Rate Study revealed that the planning processes within ARENTO are to a great degree disjointed and informal. The primary reason for this is that ARENTO earnings are used by other ministries to fund non ARENTO projects. There is a belief that more realistic revenue and earnings forecasts and supporting budgets will result in an increase in the drain of earnings from ARENTO by the other ministries.

4.2.1 Task Overview-Goals and Objectives

The purpose of this study is to identify the framework that promotes the telecommunications infrastructure of the country in a fashion that best meets the needs of the people of Egypt consistent with the stated public policy of the government to adopt market reform. This study is not designed to impose U.S. or European type regulations but is tailored to the business framework of ARENTO. It is designed to describe the best path to enhance the telecommunications sector and thereby benefit other industries that depend on telecommunications. The study will describe actions to migrate ARENTO in its key role of providing telecommunications services to a fully commercialized entity that is responsive to the needs of the Egyptian people and the goals established by the national telecommunications policy of the GOE.

These actions focus on providing adequate resources for the Egyptian telecommunications sector through the interpretation of the resource value in the marketplace. The earnings that ARENTO generates are the result of the market interpretation of the value of telecommunications investments and resulting services. The premise that resources should be allocated to the highest valued goods and services leads to the belief that the diversion of earnings as currently experienced by ARENTO, may not result in optimal social good.

However, greater ARENTO autonomy in the retention and reinvestment of earnings and service pricing may not result in the optimal level of telecommunications sector output and investment. The concept of monopoly power derived from the essentially sole market provider position of ARENTO may work to create non desired results. This study describes the actions required to safeguard the people of Egypt and ensure the continuous provision of affordable telephone services.

Many countries are moving to an increased level of commercialization to tap essential sources of technology, capital and managerial know-how (see APPENDIX K

"Commercialization in the Telecommunications Industry"). There are various forms of Telecom ownership based on the corporate structure from totally privately held ownership to government held majority ownership. Each form has had some degree of success. However, the common thread of all successful privatization or commercialization efforts has been a governmental hands off approach to the operation of the firm. This study will define the degree of autonomy that the successful ARENTO organization should have to both simulate the results of privatization and position for the possibility of greater future commercialization.

Regardless, if appropriate actions are taken to create a favorable business and political environment for ARENTO, the value of ARENTO assets will increase and translate into greater effectiveness in delivering services and easier access to investment funding. This study defines the desired actions and presents a timeline for their implementation.

4.2.2 Study Methodology

This study was structured to approach resolution of the problems identified in earlier analysis in an efficient manner. Key participants in the telecommunications industry were interviewed including most of the upper management of ARENTO. In addition, many ARENTO Board of Directors were interviewed as well as consultants to associated ministries. The K&M Team also obtained the viewpoint of the World Bank and the American University relative to ARENTO and the telecommunications role in the Egyptian economy. Legal interpretations of existing laws and decrees were also solicited from the local law firm of Shalakany.

This task is not quantitative in nature. The results presented here were gained from the work of previous analysis in the ARENTO/USAID Cost of Service/Rate Study and subsequent interviews. These previous studies indicate that there is an opportunity cost associated with the misallocated investment that has resulted from the current method of operation and business environment of ARENTO. This misallocation can be as great as LE. 500 million each year in investment funds re-channeled to other uses and almost as much in lost revenue and increased costs from under priced services and disjointed planning. The primary focus of the study describes legal, regulatory and business structure reform that will effectively reduce the misallocation of telecommunications sector resources.

Before proceeding, the meaning of several terms and the apparent inconsistent use of others should be noted. During the course of this study, the reader will notice that the Minister of Transportation is referred to interchangeably with the Minister of Communications. This is due to the fact that a single minister had both roles at the time the laws creating ARENTO were enacted. The term "Telecom" is often substituted for the term "telecommunications" only to shorten the text and lengthen the reader's patience. The term "basic services" is used to include local, national toll and international toll access and use along with telex services. All other services are considered "enhanced services" from the viewpoint of this study. The term "Government of Egypt" is usually abbreviated as "GOE" in this study. Finally, the term "Communications" as used in this study includes telecommunications as well as broadcast communications services.

4.3 LEGAL FRAMEWORK

4.3.1 Public Law No. 153

ARENTO was created with the passage of Public Law No. 153 (see APPENDIX A) in 1980. At that time, telecommunications for most countries outside the US. and Canada were typically nationalized along with postal services. It is clear from the law that ARENTO has the authority to "carry out all transactions which may enable it to achieve its goals" and the authority to "set plans and programs set fourth and management procedures that suit its activity". In effect, in all matters dealing with national and international telecommunications services ARENTO is legally autonomous (there are two exceptions under Public Law 153 where ARENTO must secure ministerial approval for "personnel matters and loans"). It is chartered to invest its resources to further its stated telecommunications sector goals and can organize and enter joint agreements with other corporations to achieve its objectives. ARENTO is given the authority to set and implement Egyptian telecommunications policy under this law. In addition, the law grants ARENTO the telecommunications monopoly franchise to do business in Egypt along with the authority to regulate itself and any other telecommunications participants it recognizes.

It is obvious that the framers of Public Law No. 153 had autonomy in mind when the law was enacted. In fact, ARENTO was established under law as a corporate entity with autonomy and a reporting relationship to the Minister of Telecommunication. The law is specific in the structure and responsibilities of ARENTO's Board of Directors, Chairman and Board of Managers. Given this high degree of autonomy granted by the law and the broad responsibilities and power over the telecommunications sector, why does ARENTO pursue reform? The fact is the law is not being enforced and administered as the framers originally intended. Other governmental and non governmental entities have taken actions to extract the powers and authority that the framers of Law No. 153 had reserved for ARENTO.

4.3.2 Implicit and Explicit Controls and Restraints

In addition to Public Law No. 153 a number of ministerial decrees have been issued to the management of ARENTO regarding certain aspects of the business. These decrees have for example resulted in the contribution of ARENTO annual earnings to the General Fund under the management of the Minister of Finance. The Minister of Planning has declared the responsibility of direct review of ARENTO network investment plans. The Minister of International Affairs has review and approval authority over the international investment funding levels of ARENTO (see APPENDIX L - "ARENTO Business Activity Approval Process").

Over the past years, the influence over ARENTO by the various ministries has increased and with each intervention by these ministries the focus of meeting telecommunications sector objectives is diverted. These decrees and the active participation by other ministries in the operation and decisions of ARENTO also carry an implicit force not defined in the decrees. For example, specific actions will not be considered due to the expected counter actions that may occur from the various ministries. Basic business functions such as pricing, budgeting, funds sourcing, employment, and organization structure are now subject to these multi-ministerial reviews and approvals. In this fashion, ARENTO has many impediments to aggressive planning and implementation and exists in a political environment that generates risk and business ineffectiveness.

The ARENTO Board of Directors who were initially given a high degree of autonomy under Public Law No. 153 have lost authority in decision making and direction setting. ARENTO's goals and objectives are subservient to the goals and objectives of other ministries which may have directions that conflict with the telecommunications sector of Egypt. In effect, since the Law was enacted, Egypt has moved further away from the principle that telecommunications is critical to the economic and social growth of the country.

4.3.3 Legal Interpretation of Public Law No. 153

I. Laws Of Establishment Of The A.R.E. National Telecommunications Organization:

1. The A.R.E. National Telecommunication Organization has been established as a general organization by virtue of Law No. 153 issued in 1980.

2. The law of establishment of the Organization states the following:

   (A) The Organization has a corporate identity. The Organization is a public entity, i.e., affiliated to the State.

   (B) The Organization is exclusively responsible for the establishment and operation of the telecommunications network on the national level and connecting the national network with the international networks within the general political and economic national plan.

   (C) Article 3 of the law states that the Organization may carry out all transactions that enable it to achieve its goals. The Organization may set plans and programs and follow the management procedures that comply with its activities according to the provisions of the law regardless of the rules and governmental regulations.

   (D) Article 4 states that the Organization may, in order to achieve its objectives, and after obtaining the approval of the Minister of Telecommunications, establish joint stock companies either solely or with the other partners. The shares of these companies may be publicly sold upon the establishment of such companies. The employees of such companies have priority in purchasing up to 10% of such shares.

   (E) According to Article 5, the capital of the Organization is sourced from the capital of the State.

   (F) The Organization's resources are composed of:

      (a) The amounts allocated by the State in the national budget.

      (b) The revenues resulting from the Organization's activity and services rendered to others whether locally or internationally.

(c) The difference in price of performing the services and actual prices charged by the Organization in accordance with the provisions of Clause 3 of Article 12 states that:

"In case the State fixes these rates at a lower level, below the Organization's rates, the general national budget shall bear the difference resulting from the same and shall be entered into the forthcoming financial year."

(d) The loans acquired by the Organization.

(e) Grants and aids.

(f) Revenue of the fines inflicted by law for breaching the regulations applied by the Organization.

(G) Article 7 states that the funds of the Organization are deemed public funds.

According to the Egyptian Law, immovables and movables owned by the State or public entity, which are allocated for public utility, in fact or by virtue of a law or a decree from the competent Minister shall be deemed public funds.

Such funds may not be disposed of or be subject to attachments or owned by virtue of limitation.

The funds, in order to be considered public, must:

Be owned by a public entity
Be allocated for public utility.

The funds being public funds does not prevent the Organization from having its own private funds subject to the ordinary rules of ownership and transactions. It may be owned by virtue of limitation and may be subject to attachment. Such funds are governed by the private law.

Example of such funds are the shares owned by the Organization in any of its affiliated companies and any other funds not allocated to public utility.

(H) The Organization, due to its independent entity has the right to import regardless of the rules and regulations related to importation and foreign exchange. Its importations are exempted from the taxes and customs duties (exemption from import fees has been rescinded by a subsequent decree issued by the Minister of Finance and approved by the People's Assembly).

3. The management of the Organization (Article 15)

(A) The Board of Directors (Article A):

The Organization has a Board of Directors headed by the Chairman and formed of ten members. These members are among the managers of the Organization and also include six experts and a member from the General Syndicate of the Organization.

The Board of Directors is the highest level of the management controlling its affairs. The Board may take necessary decisions in order to achieve the Organization's goals. The Board carries out its responsibilities as indicated in the law. The Board may:

1. Set forth plans and programs of the Organization within the national plan of the State.
2. Lay down the Organization's structural chart.
3. Approve rates, tariffs and costs of the services rendered by the Organization.
4. Set the regulations for the contracts concluded between the Organization and its customers.
5. Set the Organization's internal regulations.
6. Propose the personnel regulations for the recruitment of the employees, the promotion of the employees, salaries scale, allowances, remunerations and all the employment affairs. Such decree shall be issued by the Minister if Transportation.
7. Set the system for health, social, cultural and sports care for the employees of the Organization.
8. Establish a control system and perform evaluation criteria for the employees to the economic circumstances.
9. Approve the annual budget of the Organization and its final account.
10. Propose local and international loans.
11. Accept grants and donations offered to the Organization which do not contradict with its objectives.
12. Sign Agreements that fall within the Organization's responsibility.
13. Study and follow-up the periodical reports presented on the Organization's operation.

14. Study any issues presented by the Minister of Transportation or the Organization's Chairman to the Board concerning any problems that fall within its responsibilities.

It is noticed that the Board of Directors may not:

1. With regard to the regulations and rules of enforcement of such regulations without the approval of the Minister of Telecommunications.

2. With regard to the borrowing internally or internationally: The Board proposes the loan, and in order for this loan to be concluded according to the competent authorities and according to the Law.

Article 20 states that the Chairman of the Board passes the Board of Directors decisions on to the Minister of Telecommunications within three days as of the date of issuing them for his approval. The Minister may object to them within fifteen days from the date of presenting them to the minister and in this case the Board may reapprove them with a majority of three quarters of the members.

If the fifteen days elapse as of the date of passing the decisions on to the Minister without any objection, then the decision of the Board shall be enforceable as of the date of termination of such period.

(B) This applies to all decisions of the Board except:

1. Proposing the regulations of the personnel and their rules.

2. Proposing a loan internally or internationally.

In order to enforce the above, the Minister must approve the personnel regulations and the approvals must be obtained with regard to the loans from the Ministry of Planning and the Ministry of Finance.

(C) Article 26 states that the regulations of the personnel are issued by a decree of the Minister of Telecommunications after the approval of the Board of Directors of the Organization regardless of the governmental rules and regulations.

The following must be considered when issuing these regulations:

1. Connecting the salary with the type and nature of work and its performance under the various circumstances.

2. The value of the travel allowance and transportation allowances of the Organization's employees shall not exceed the actual costs borne by them.

3. Following the unified Accounting System Regulations:

Accordingly, if the Board approves and the Minister does not object to the regulations, then a decision for its enforcement shall be made.

4. The Manager's Board

(A) Article 21

It is formed by a Ministerial Decree by the Minister of Telecommunications indicating these in the system and procedures for its operation.

(B) Article 22

It is the main authority in the field of operation, follow-up and suspension of executing the projects carried out by the Organization. It establishes the draft regulations of the Organization, provides the studies and researches, proposes the required methods of development and prepares the reports.

The specialization of the Board of Managers is not executive.

5. The Chairman of the board

(A) Article 22

It represents the Organization before the Court and third parties.

(B) Article 16

The Chairman of the Organization is appointed by a Presidential Decree that specifies his salary and allowances.

(C) The Chairman is responsible for executing the decisions of the Board of Directors and the Manager Board, managing the Organization, handling its affairs, developing the operating systems, and supporting its departments, providing the reports to the Board and providing the Minister of Telecommunications with data.

II The Relationship Between the A.R.E. National Telecommunications Organization and the Government:

1. As stated above, the Organization is a public organization (public entity) affiliated to the Minister of Telecommunications and it is managed in a centralized unified manner and has a separate budget regardless of the laws and rules applied in the preparation of the State budget. It has a special account wherein it deposits its resources and the profits of the Organization is carried forward from one year to the next. The Organization's financial year starts simultaneously with the State's financial year, and ends with it.

2. The Minister has two functions. A political and an administrative one. The Organization is affiliated to the Minister administratively and not in his political capacity.

3. The Organization has a separate budget prepared regardless of the regulations applied in preparing the budget of the State. Accordingly, it has a financial independence needed to achieve its objectives, notwithstanding the provisions stated in the law of the Organization with regard to proposing the internal and international loan which requires the approval of the minister before taking any action.

4. Among the procedures required pursuant to the Law of the Conseil d'Etat (state Council) No. 74/72 Article 85 states that any public organization may not conclude any contract exceeding the amount of five thousand pounds without referring to the competent legal opinion department.

5. According to the Article 121 of the Constitution, the executive authority may not conclude loans or engage into projects leading to bearing costs from the budget of the State in a consecutive period without the approval of the People's Assembly.

   This means that the loans of the Organization have to be approved by a law issued by the People's Assembly.

6. According the Law No. 159/1981 Article 111, the Organization is subject to the corporate Law.

   According to the above, the Organization is a public economic organization affiliated to the Minister of Telecommunications administratively and not politically. Accordingly, it is not an executive authority of the State as its activities are economic and commercial services.

III Comparison Between The Organization And The Suez Canal Authority:

The Suez Canal Authority is established according to Law No. 30/1975.

1. The Law states in its first article that the Suez Canal Authority is responsible for managing the Suez Canal and exploiting, maintaining and developing it.

   The Authority may establish whatever projects necessary related or connected to an utility or share in its establishment or encourage such establishment.

2. The said law states that the Suez Canal Authority is a public authority with an independent legal entity subject solely to such law and law No. 61 for the year 1963 with regard to the establishment of authorities and Law No. 60 of 1971 with regard to the establishments do not apply.

3. The Authority is managed by a Board of Directors appointed by the President.

4. The Authority follows the appropriate management and exploitation means applied to the commercial projects.

5. The Authority has an independent budget to which the rules of the commercial projects are applied without prejudice to the supervision of the on the final account of the Authority. The financial year is different from that of the State budget and is prepared according to the commercial standards.

6. The Authority is not subject to the Law of Public Authorities, accordingly it is not affiliated administratively to a particular Minister but it is an investment establishment standing on its own and its special system although it manages a public utility owned by the State.

4.3.3.1 Interpretation of Public Law No. 153 - Shalakany Law Office Analysis

For a more comprehensive interpretation and examination of Law No. 153 the following analysis prepared by the Shalakany Law Office is provided.

First: Establishing the Law:

1. Law:

The National Telecommunications Organization (ARENTO or the "Organization") was established as a general organization under Law No. 153/1980 (the "Law") which was enacted in accordance with the constitutional rules in force.

2. ARENTO's Object, Powers, Capital and Resources:

2.1 ARENTO is a juridical person coming under the supervision of the minister of Telecommunication (the "Minister") and is operated in a unified centralized manner.

2.2 The object and activities of the Organization are to establish and operate telecommunications networks at the national level and to link them up with international networks within the framework of the State's general political and economic plan.

To this end, it:

(a) Establishes telecommunication networks all over the A.R.E.

(b) Extends telephone wires and wireless services

(c) Manages and maintains structures and equipment necessary to offer such services.

(d) Establishes the required projects to achieve its object

(e) Cooperates with national and international organizations to connect ARE with the world.

2.3 ARENTO may carry out all dispositions and transactions as are necessary for the fulfillment of its objectives, and may lay down the plans and programs and apply the management techniques compatible with its activities in accordance with law and without being bound by governmental rules and regulations.

2.4 To enable it to do so, the Law allows ARENTO - with the approval of the Minister - to establish joint stock companies either alone or together with other partners, whose shares shall be negotiable promptly upon their incorporation. ARENTO's employees shall have a preemptive right to subscribe to such shares.

2.5 (a) The Organization's capital is composed of:

- The funds of the former General Telecommunication Organization, established by Presidential decree No. 709/1957.

- The amounts contributed by the State

(b) The Organization's resources are composed of:

- The amounts allocated by the State in the national budget.

- The revenues resulting from its activities and services rendered locally and internationally.

- The subsidies paid by the government to cover the difference between the price rate fixed by the board of Directors of the Organization and that fixed by the government.

3. Self-Management:

It is clear from the foregoing that ARENTO has the exclusive right to establish and operate communication networks, that it is entitled, for the fulfillment of its object, to engage in whatever dispositions it deems necessary, and that it is also entitled to establish companies either singly or jointly with third parties.

Article (15) of ARENTO's establishing Law provides that it shall be managed by a board of directors, a board of managers and a chairman of the board of directors.

3.1 Board of Directors:

The board of directors is the highest authority responsible for running ARENTO's affairs and conducting its business. As such it is entitled to issue whatever resolutions it deems necessary for the realization of ARENTO's objects. The board exercises its mandate in the manner prescribed by the Law.

Board members are appointed by a decree of the Minister, provided the appointment of the employees' representative shall be on the basis of a board nomination. The board of directors shall:

3.1.1 Lay down ARENTO's plans and programs within the scope of the general plan of the State.
3.1.2 determine ARENTO's organizational structure
3.1.3 Approve price rates, tariffs and fees for the services provided by ARENTO.
3.1.4 Lay down the rules governing contracts ARENTO concludes with the recipients of its services.
3.1.5 Formulate ARENTO's internal regulations.
3.1.6 Establish the system for medical. social, cultural and sports care for employees.
3.1.7 Lay down the system of control. follow up and performance appraisal in accordance with economic criteria.
3.1.8 Approve the annual draft balance sheet and closing account.
3.1.9 Accept gifts and donations presented to ARENTO which do not contradict its object.
3.1.10 Conclude agreements falling within the scope of its functions.
3.1.11 Review periodic reports and follow up the proper conduct of work.
3.1.12 Look into such matters as fall within the scope of its powers as the minister of Telecommunication or the chairman may decide to put to the board's review.
3.1.13 Propose laying down the regulations related to the appointment and promotion of employees, the determination of their wages, allowances and bonuses and all related personnel matters. Such regulations shall be issued by a decree of the minister.
3.1.14 Propose concluding internal and external loans.

The relationship between ARENTO's Board of Directors and the Minister of Telecommunications:

Article (20) prescribes the mechanism by which the board resolutions become effective:

* Resolutions are to be submitted to the minister within three days of their issuance for approval.

* The Minister may approve resolutions within 15 days from the date of their submission, and they shall become enforceable promptly upon their approval as aforesaid, or

* Allow 15 days to elapse without issuing his approval, in which case the resolutions become enforceable promptly upon the expiry of this period, or

* Within the said 15-day period, request that such resolutions be re-submitted to the board's review. The Minister may require for example the insertion of new provisions to the resolutions or the deletion or amendment of certain of their contents. Alternatively, he may simply object to the resolutions.

* In the event the Minister requests a review, the board may accept or reject the request with a three-quarter majority of its members. In such case, the resolutions shall be valid without necessity to re-submit them to the Minister.

It is clear from the foregoing that the Law gives the board autonomous power to manage ARENTO and conduct its business speedily, as borne out by the non-binding force of the minister's objections to its resolutions.

3.2 However, by way of exception to the foregoing, the board may not unilaterally issue resolutions touching on the following matters:

3.2.1 Personnel Regulations

The board is entitled only to propose these regulations. Its proposal becomes valid after the Minister issues a decree adopting same. According to Article (26) of the Law, personnel regulations are issued by a decree of the Minister, after the approval of ARENTO's board of directors, regardless of governmental rules and regulations. It follows from this that if the board approves the regulations and the Minister objects thereto, the board must take his objections into consideration by revising its proposals in the light of such objections in order to obtain the Minister's approval and his decree issuing the regulations.

3.2.2 Loans:

The board submits its proposals in respect of loans. whether internal or external, to the Minister, who shall obtain the approval of the competent authorities in accordance with the provisions of:

* Para (3) of Article (58) of Conseil d'Etat Law No. 47/1972 which rules that:

  "*It is prohibited for any ministry, general organization or any department of government to conclude any contract, or to accept or permit any contract, conciliation or arbitration or enforce any arbitral award the subject matter of which exceeds five thousand pounds without consulting the competent administrative authority*".

* Article 121 of the Egyptian constitution of 1970 which rules that:

> *"The executive branch of government may not conclude loans or engage in a project which will result in expending sums from the State treasury at a future time except with the approval of the People's Assembly".*

3.3 Board of Managers:

The board of managers is the main authority when it comes to operating ARENTO, following up its day to day business and supervising the execution of its projects.

According to Article (22) of the Law, the board of managers is responsible for preparing ARENTO's draft regulations, for conducting the studies and research requested by the Minister or the board of directors as well as for looking into the items on the agenda of the board of directors, commenting thereon and presenting studies and proposals in connection therewith before the agenda is reviewed by the board of directors, in addition to the other powers referred to in the said Article.

In other words, the board of managers' functions are supervisory rather that executive.

3.4 Chairman of the Board of Directors:

The chairman, who is appointed by presidential decree, represents ARENTO before the judiciary and in its relations with third parties.

Article (24) invests the chairman with the authority to implement the resolutions of the board of directors and the board of managers, to manage ARENTO and conduct its affairs and to furnish the board of directors. the Minister of Telecommunications and the agencies of the State with reports, studies and proposals. Paragraph (5) of the same Article provides that additional functions may be assigned to the chairman pursuant to the rules set forth in ARENTO's internal regulations.

Whereas the board of directors is empowered to lay down ARENTO's internal regulations relative to all technical, financial and administrative affairs, as well as those governing purchases and warehouses pursuant to Article (18), therefore the chairman may, after obtaining the board's approval, amend such regulations to invest himself with greater administrative and executive powers, provided the amendments are compatible with the Minister's decree No. 108/1983 as amended by decree No. 467/1992 issuing the financial regulations, the Minister's decree No. 200/1982 concerning personnel regulations, and decree No. 215/1973 issuing the regulations and procedures of buying, selling and storing.

Furthermore, the Law gives the chairman the right to delegate some or all of his responsibilities to one or more of ARENTO's managers.

3.5 Article (8) of the Law states that the Organization has a separate balance sheet prepared in accordance with its internal regulations, regardless of the laws, and regulations organizing the State budget, and has a special account in which to deposit its resources. Its profits are carried over from one year to the next.

4. Conclusion

It is clear from the foregoing that the Law invests the board of directors , the board of managers and the chairman with all the powers necessary to manage ARENTO directly. Perhaps the most graphic illustration of the high degree of autonomy they enjoy is in those cases where the Minister of Telecommunications exercises his right to object to board resolutions and returns them to the board for a re-vote. Unless the resolution touches on personnel regulations or loans (in which case it requires the approval of the Minister and the People's Assembly as previously mentioned), the board nay, pursuant to Article (2)) of the Law, reapprove the resolution - in the same form objected to by the Minister - with a three-quarters majority of its members.

Second: Public Funds

Article (7) of the Law provides that ARENTO's funds are deemed to be public funds.

Egyptian law defines public funds as the real property and movables owned by the State and by public juridical persons, which are allocated for public welfare in fact or by virtue of a law, edict or decree of the competent minister. Such funds may not be disposed of, attached or owned by prescription.

On the basis of the foregoing, for funds to be considered public funds, they must:

* Be owned by a public juridical person,

* Be allocated for public welfare

Whereas according to Article (5) of the Law, all of ARENTO's capital is made up of State funds, and ARENTO's recourses are made up of the sums allocated to it by the State in the general Budget, in addition to the other recourses mentioned in Article (6) of the Law, and its funds are allocated to the provision of telecommunications services which serve public welfare, therefore ARENTO's funds are deemed to be public funds.

However, the fact that ARENTO's funds are public funds does not prevent ARENTO from owning private funds which are subject to the ordinary rules of ownership and transaction and which may be owned by prescription or attached in accordance with general rules.

The same applies to the shares owned by ARENTO in its subsidiaries on in the companies which it establishes alone or jointly with other partners pursuant to Article (4) of the Law. This is confirmed by Article (7) of Investment Law No. 230/1989 which rules that:

"Projects are deemed to be private sector projects, whatever their legal form and whatever the legal nature of the Egyptian funds contributed thereto, and shall not be subject to the laws and regulations governing the public sector or its employees".

The capital, assets and resources of the joint stock companies which the Organization establishes alone or jointly with other persons are considered private funds.

Third: Juridical Personality

1. ARENTO is a general organization (that is, a public juridical person) coming under the supervision of the minister of Telecommunications. It is operated in a centralized unified manner and has its own balance sheet that is prepared without regard to the laws and regulations applied in the preparation of the State's budget. ARENTO also has a special account wherein it deposits its resources. The surplus shown in ARENTO's balance sheet is carried over from one year to the next, and its financial year begins with the State financial year and ends with it.

2. The Minister has two functions. one political and one administrative. ARENTO comes under his supervision in his political capacity, not in his administrative capacity.

3. ARENTO's separate budget gives it the financial independence necessary to carry out its objects (except with regard to loans). Moreover, ARENTO is subject to the tax on corporate profits in pursuance of Article (111) of Law No. 178/1992.

Thus ARENTO is a general organization which comes under the supervision not of the Ministry of Telecommunications but of the Minister of Telecommunications from the political point of view, and is deemed to be a public utility of the State in as much as its activity is the provision of economic and commercial services.

As mentioned before, Article (1) of the Law provides that ARENTO is a juridical person. As such, it enjoys its own independent patrimony, and has a name, domicile and nationality.

It should be noted that general organizations in general acquire a juridical personality as soon as they are established by presidential decree and their powers determined within the framework of the objects for which they are formed.

Fourth: Separate budget

Article (8) of the Law rules that:

"ARENTO shall have a separate balance sheet prepared in accordance with the rules laid down in its internal regulations, regardless of the laws and regulations governing the preparation of the State budget. ARENTO shall also have a special account in which to deposit its resources. The surplus shown in ARENTO's balance sheet shall be carried over from one year to the next and its financial year begins with the State's financial year and ends with it".

Moreover, the power to approve the budget is vested in the board of directors by para (a) of Article (18) of the Law. The term "separate balance sheet" as used in this text means that ARENTO has full freedom to use its resources as it sees fit and that the role of the Finance Ministry, in its capacity as the body with supervisory powers over financial activity of the State, is limited to making comments. provided the People's Assembly shall have the final say in any dispute arising between ARENTO and the ministry. The provision in the text for the carrying over of ARENTO's surplus from one year to the next means that this surplus does not go to the State budget but remains under the full control of ARENTO, which may use it in any manner conducive to the realization of its objects.

It should be noted in this regard, that, according to the opinion issued on November 18, 1981 (file No. 1565/86) by the General Assembly of the Departments of Opinion and Legislation of the Conseil d'Etat, while the legislator invested ARENTO with the power to prepare its balance sheet without being bound by the laws and regulations governing the preparation of the State budget, the exception is limited to the stage of preparation and does not extend to the remaining stages through which the balance sheet must proceed, be it the stage of approval. of implementation or of auditing. If follows that the Finance ministry is held to submit the budget prepared by ARENTO, together with any comments it may have thereon, to the People's Assembly so that this latter may be the arbiter between ARENTO and the Finance ministry in regard to these comments.

However, the practical application of the provisions of Article (18) has resulted in the following:

a. ARENTO's board of directors prepares the balance sheet in draft form.

b. The draft balance sheet is presented to the Minister in the form of a board resolutions. The Minister in his turn adds such sums and allocations as he deems necessary to the balance sheet.

c. After its approval by the Minister, the draft balance sheet is sent on to the Finance Minister who adds his comments thereon before submitting it to the People's Assembly. Most of these comments relate to the utilization of ARENTO's surplus for the account of other agencies and organizations instead of retaining them in ARENTO's account.

Fifth: ARENTO's Service Charges and Basis of Accounting:

1. ARENTO's Service Charges:

Article (12) and para(3) of Article (18) of the Law prescribes the following methods:

a. The board of directors proposes the price rates, tariffs and charges for the services provided by ARENTO in accordance with the correct standards of cost accounting and on the bases approved by the board of directors and sent to the Minister.

b. The Minister presents the rates to the Council of Ministers.

c. The minister issues a decree determining the rates to be applied.

In the event the State fixes service rates at less than the approved levels the resultant difference shall be borne by the State budget.

2. Correct Standards of Cost Accounting:

Articles 172 to 177 inclusive of the financial regulations issued by the Minister's Decree No. 108/1983 as amended by decree No. 467/1993 requires ARENTO's accounts to be held in accordance with the nature of its activities and the proposals of expert service consultants with which ARENTO enter into contract, and requires it also to apply correct standards of cost accounting in order to correctly calculate the cost of services.

Central Audit Agency Law No. 144/1988 organizes the method by which the agency will audit ARENTO's accounts.

By correct standards of cost accounting is meant the rules of accounting generally practiced in Egypt and which ARENTO decides to use as a basis for its accounting in general, including the calculation of the costs of providing services under the control of Central Audit Agency.

Sixth: Comparison between ARENTO and the Suez Canal Authority

The Suez Canal authority is established according to Law. No. 30/1975 which rules as follows:

1. The Suez Canal Authority is responsible for running the Suez Canal utility and for managing, exploiting, maintaining and improving it. To this end, the Authority may, whenever necessary, establish projects related to or connected with the utility, participate in their establishment or encourage the establishment of same.

2. The Suez canal Authority is a public authority enjoying an independent juridical personality. It is governed by the provisions of this Law exclusively and is not subject to the provisions of General Organizations Law No. 60/1971.

3. The Authority is managed by a board of directors appointed by presidential decree.

4. The Authority follows appropriate management and exploitation techniques normally applied by commercial projects.

5. The Authority has an independent budget which it shall prepare in accordance with the rules applied in commercial projects, without prejudice to the examination by the Central Audit Agency of the Authority's closing account. Its financial year commences on the first of January and ends on the 31st of December of each year.

6. The Authority levies and collects navigation, piloting towing, moorage and other fees in accordance with laws and regulations.

7. In order to carry out its duties, the Authority may exercise all the necessary powers and authorities, and may, in particular, acquire ownership of land and buildings by any means including the power of eminent domain. The Authority may lease out the land or buildings it owns to third parties and may lease land and buildings owned by third parties, whether to fulfill the objects for which it was established, to realize the welfare of its employees and workers or to establish projects and utilities connected to the Canal or which may be necessary for its proper running.

8. The Authority's funds are deemed to be private funds.

From the above, it is clear that the differences between ARENTO and the Authority are represented essentially in the following:

a. The Authority's funds are private funds, while those of ARENTO are public funds.

b. Because its funds are private, the Authority has the right to effect any dispositions in order to establish projects connected to its activity, either with third parties or by itself. On the other hand, ARENTO may only exercise its right to execute projects or to establish joint stock companies, singly or with third parties, with the approval of the Minister.

c. The Authority has an independent budget to which the rules of commercial projects are applied, subject only to the supervision of the Central Audit Agency. Moreover its financial year is different from that of the State. While ARENTO also has a separate budget, it is subject to the comments of the finance Minister and any dispute arising between him and ARENTO over the budget is subject to the determination of the

People's Assembly. Moreover, its financial year is the same as that of the State.

d. The Authority is not subject to the General organizations Law. Accordingly, it is not administratively answerable to a specific Minister of ministry. Rather, it is an investment agency managing a public utility owned by the State. Although ARENTO also runs a public utility owned by the State, it is subject to the General Organizations Law.

Seventh: Comparison Between ARENTO and Egypt Air:

1. EgyptAir is subject to Law No. 23/1960 (as amended by Law No. 241/1960) to Law No. 11/1966, to Law No. 116/1975, to Law No. 97/1983 as well as to presidential decree No. 600/1975 and Prime Minister's decree No. 159/1982.

2. According to the above mentioned laws and decrees, EgyptAir is a general organization with a juridical personality coming under the supervision of the Minister of Civil Aviation.

3. EgyptAir is entitled to pursue its authorized activity itself or to pursues some of these activities through such subsidiary economic units as its board of directors may decide to establish In respect of the activity it decides to carry out itself, EgyptAir is considered to be an economic unit.

4. EgyptAir has a board of directors which is responsible for conducting its business and running its affairs.

5. EgyptAir's resources shall be made up of the proceeds of the net profits realized by its subsidiary economic units and its share in the sums payable in consideration of supervision and management prescribed in the distribution of the profits realized by its subsidiary economic units.

6. EgyptAir has a separate budget to which the rules of commercial projects are applied. This means that EgyptAir's profits devolve to it.

7. Article (14) of Law No. 97/1983 rules that the funds of public sector organizations are among the privately owned funds of the State, unless the respective decree establishing an organization stipulates otherwise. whereas, the legislative texts organizing EgyptAir are silent on the question of its funds. Therefore, the said Article(14) applies and EgyptAir's funds are deemed to be privately owned fund of the State.

   Thus ARENTO differs from EgyptAir in that the former's funds are public funds while those of EgyptAir are privately owned by the State.

Eighth: Development of ARENTO's Activity:

As previously mentioned, ARENTO is exclusively empowered to establish and operate telecommunication networks at the national level and link them up with international networks within the framework of the State's political and economic plan. To this end, it is allowed by law - and with the approval of the Minister of Telecommunications - to establish joint stock companies, either on its own or with other partners. The shares of these companies may be traded upon their incorporation, and ARENTO's employees have a pre-emptive right to subscribe thereto.

Thus ARENTO's activity may be divided into two areas:

- One area relates to establishing and operating local telecommunications networks and linking them with international networks.

- The second to presenting telecommunication services to the public and consumers, installing and maintaining equipment and collecting fees and subscriptions.

Since area one touches on the general policy of the State and its international relations as well as on the telecommunications infrastructure, it must be protected and the equipment required to pursue this aspect of ARENTO's activity must remain the property of the State.

As to area two, which is ARENTO's commercial activity, this may be assigned to a management company established in the form of an Egyptian joint stock company, in the capital of which ARENTO will own 49% and other shareholders the rest. This company would manage the commercial activity, including maintenance works for equipment, units and distribution centers for telephone services.

From the legal point of view, assigning management of the telecommunication utility to the new joint stock company should be effected through a management contract which addresses all the conditions of management, mechanism of pricing and such other conditions as are necessary to comply with State policy in this regard.

4.4 FINDINGS AND CONCLUSIONS

4.4.1 Findings-Current Telecommunications Sector Environment

Although ARENTO is acknowledged as the sole public telecommunications provider in Egypt, ARENTO is currently subject to access competition from other ministries. For example, the military, irrigation, petroleum, power and other sectors of the economy have private network capability. These ministries only use the public network backbone and not local ministry distribution or enhanced features. Additionally, ARENTO is facing increased competition from the cellular carrier entrant that is currently being evaluated. Although Egypt telecommunications is considered essentially concentrated in the hands of ARENTO, other organizations are placing competitive pressure on the enterprise to reform.

ARENTO currently exists in a business and political environment that is shaped by a combination of laws, ministerial decrees and political pressure. The current environment is not predictable from a management perspective and represents a significant risk to the enterprise due to the threat of business intervention from several fronts. Further, the current environment is not conducive to the establishment of the optimal direction for the telecommunications sector.

4.4.2 Findings-Summary of the Current Situation

Egypt currently has a well written law that established ARENTO as the sole provider and decision making organization for public telecommunications in the country. In this law, the ARENTO Board of Directors was granted a high degree of autonomy in business decision making relative to planning, financing, product service levels and pricing as well as capital planning and budgeting. The Board of Directors has reporting responsibility only to the Minister of Telecommunications in the President's cabinet.

Since the inception of the law, however, influences on ARENTO have been exerted by other ministers. For example, a review of ARENTO financial performance and projected annual budgets by the Minister of Finance is used to determine the amount of ARENTO earnings that will flow to other non telecommunications related projects. It is anticipated by the Board of Directors and Chief Financial Officer of ARENTO that higher projected revenues and earnings will create a greater drain from the enterprise to other non telecommunications uses by the Finance Minister. As a result, the budgets presented to the Finance Minister for review are typically understated an since the management of ARENTO wants to keep the formal budget process beyond reproach this is the only budget ARENTO keeps (see APPENDIX L - "ARENTO Business Activity Approval Process").

By definition, the budget is in error and is not useful in describing what actual investment levels will occur. This process is an impediment to good planning and management as well as increasing the risk to ARENTO relative to project funding and the expected returns on investments. This risk also effects the sourcing of investment funds relative to whether they are generated internally or obtained from outside sources. If outside funding is required the Minister of Finance and the Minister of State play a strong hand in determining the mix of national and international funds sourcing as well as the interest rate applicable to the borrowed funds.

61

Funds management and planning is extremely difficult in ARENTO since uncertainty exists in determining funds requirement, retained investment capital as well as allowable funds sources and interest rates. These uncertainties are in addition to the significant business uncertainties that other business entities face and are each imposed by intervention of the various ministries.

Product pricing is another area where various ministries can intervene where there is no legal ground. Many of the intervening ministries either require direct review of proposed price changes or give advice that anticipates the outcome of pursuing a price change. Most of these intervening ministries are customers of ARENTO and take significant levels of service from the company. It is in each ministry's self interest not to recommend or approve price changes which will keep their costs down and not create an additional political issue for the GOE. The best interest of ARENTO and the people of Egypt are not well served by the existing arrangement which places the telecommunications sector planning and management in a secondary role behind other sector objectives.

Under the current arrangement, the long term allocation of resources to telecommunications in Egypt is sub optimal. This has been hidden and will continue to be hidden by the growth in revenues and investment by ARENTO in telecommunications. The fact is this growth could be much greater as shown in the previous study of the Cost of Service/Rate Study performed for ARENTO and USAID. Telecom sector reform must include increased ARENTO autonomy in planning, budgeting, financing, pricing and other aspects of management including employment, organization structure and incentive compensation. This autonomy has been defined in Public Law No. 153 and has been shown to be a required step in increased commercialization of the telecommunications sector (see APPENDIX K "Commercialization in the Telecommunications Industry").

In addition to a return to autonomy, the framers of Public Law No. 153 did not establish a sound countervailing power to the franchise monopoly granted to ARENTO. They assumed as a public agency that ARENTO would provide the best service at the lowest prices and promote universal service to the public. These are noble objectives, however, as the intervention by other ministries show, some safeguards against a totally free monopoly must be in place.

Instead of the ministerial safeguards that have evolved since the enactment of the law, the K&M Team suggests that the GOE formalize and focus these safeguards in a single organization that will evolve to a greater level of commercialization in the telecommunications sector along with ARENTO. As increased autonomy is gained by ARENTO, increased regulatory authority should be granted to a single body that provides countervailing influence to ARENTO monopoly and drives both organizations down the path to commercialization.

4.4.3 Principles That Guide Telecom Reform

There is a need for regulation in Egyptian telecommunications to offset the commercialized monopoly power of an autonomous ARENTO by providing a simulation of the competitive market forces. These forces drive prices, service standards and ensure protection of

62

telecommunications consumers and valuable national radio spectrum. This need, however, will change over time as competitors become available, public objectives are met with efficient telecommunications infrastructure and product cross subsidies are eliminated. It is vital that the regulatory framework that forms the countervailing power be evolvable with communications technology, telecommunications market needs and social changes in Egypt.

The observations of the K&M Team have led to the following principles relative to telecommunications sector reform:

- Telecommunications is a strategic national resource of Egypt that falls within the responsibility of the GOE to ensure that it is managed in the best interest of the Egyptian people. This value is demonstrated by the fact that various sectors of the government including power, petroleum, water, military and others use telecommunications as a vital component of their activities. This value is in addition to the direct value to business and residence consumers of telecommunications in Egypt.

- A national telecommunications policy with long-term goals and objectives should be established to create the optimal evolutionary path for the country's telecommunications industry and provide the infrastructure that best meets the needs of the Egyptian public. The goals should be set from the perspective of public interest that transcends individual, political or organizational interests. The goals should be achievable, clear and well understood by all communications sector participants.

- Telecommunications solutions to achieve the national goals will be provided by a combination of private and public sector enterprises. The potential shifts between private and public sector participation in achieving the national telecommunications goals should be established through the national telecommunications policy and coordinated by the GOE through the Ministry of Telecommunications. However, the responsibilities for managing the operations of these enterprises should not be the responsibility of the GOE or the Arab Republic Egyptian Communications Commission (ARECC) regulatory body.

- Public interest should be protected in telecommunications. This will require a balance of regulations for some telecommunications enterprises to countervail monopoly power and market freedom for other telecommunications enterprises. This countervailing power of the ARECC will ensure better resource allocations to telecommunications, improve the value of telecommunications assets and encourage investment and market growth in Egypt. The determination of the appropriate balance of power is the responsibility of the ARECC which effectuates the national telecommunications policy that represents the GOE's determination of the best interests of the people of Egypt.

- Countervailing regulatory power must lead commercialization in Egyptian telecommunications and evolve with the sector as technology, consumer needs and competitive changes occur. The regulatory authority of the GOE must promote commercialization on the one hand and protect the public interest from the effects of monopoly power until commercialization is firmly rooted in the telecommunication sector.

63

- Countervailing power from legislative sources does not serve the best interests of either the telecommunications sector or the people of Egypt. There are numerous examples of the failure of legislative processes to recognize the requirements for telecommunications firms to survive. Purely political forces in the legislative arena typically yield conservatism on the side of the public. For example, price increases are seldom granted and pricing distortions that result in significant service cross subsidies are seldom resolved through legislation. Legislative proces s are too slow and one sided to generate the best framework for telecommunication sector oversight (see The New Telecommunications Industry: Evolution and Organization, Volume I; L. S. Hyman, R. C. Toole, R. M. Avellis; Public Utilities Reports, Inc., Arlington, VA.).

- Countervailing power dispersed in the hands of various ministries will not produce results in the best interest of the telecommunications sector or the people of Egypt. Special interests other than the achievement of telecommunications sector goals and objections command decisions with multi ministry intervention. The telecommunications sector will serve other ministries more effectively if a framework "National Telecommunications Plan" that outlines goals and objectives is developed with telecommunications sector focus.

4.4.4 Principles of Regulation

In this section, the various rational for regulation is discussed along with the need to ensure that regulation is not a deterrent to business and social objectives. The discussion reveals that regulation must evolve along with the industry it is chartered to regulate.

4.4.4.1 Types of Firms Regulated

Most countries consider the regulation of public utilities such as power and telecommunications as a requirement for meeting the needs of consumers in an efficient and effective manner. There are several characteristics of firms typically regulated which can be easily applied to ARENTO and its current government granted role of monopoly telecommunications provider in Egypt.

4.4.4.2 Characteristics of Regulated Firms

- The firm is granted a franchise area to serve. This area is well defined in Public Law No. 153 and in the case of ARENTO was broadly granted for all wire and wireless telecommunications in Egypt.

- The firm is chartered with an obligation to serve. This charter can take various forms as "provider of last resort" were competition exists to "universal service provider" in other instances. ARENTO was chartered by Public Law No. 153 to establish telecommunications network "all over the Arab Republic of Egypt".

- The service provided by the firm is deemed a necessity to the public. Basic telecommunications services are acknowledged by developed and developing countries as a public necessity particularly in the business sector where success is often dependent on a well developed set of integrated telecommunications services.

- The firm has cost and market characteristics of a "natural monopoly" and exerts a significant degree of market dominance. Natural monopolies have cost functions that demonstrate large economies of scale and long run average costs that fall over a wide range of operation. Although technology, is moving the cost function of ARENTO away from scale economies, it continues to behave as a firm that has significant economies of scale and declining long run average costs.

There are three recognized components of regulation that distinguish the public utility from other economic sectors (see The Economics of Regulation: Principles and Institutions by Alfred E. Kahn, 1970). These components include:

- control of market entry by the firm,

- price fixing or unilateral price determination by the firm,

- prescription of the quality and conditions of service by the firm.

ARENTO in conjunction with other ministries of the GOE have authority in these three areas. However, the authority has been removed from ARENTO to solely determine the last three characteristics of a public utility. A premise of this study is that ARENTO authority in these areas should be shared by a regulatory body that provides focused participation in addressing issues in these areas. This authority should be taken from the hands of other ministries and vested in a regulatory body until these characteristics are eliminated through competition.

4.4.4.3 Arguments Against Regulation

There are many arguments against regulation which have been applied to telecommunications firms in recent years. Some economists insist that the monopoly power enjoyed by telecommunications firms today is an illusion since there are already many substitutes for land line telecommunications provision. For example, there are many wireless alternatives to local access to toll, national and international services. In addition, more technologically sophisticated customer equipment can provide enhanced telecommunications services. Voice answering machines, PBXs, Automatic Call Distributors and personal computers can provide very elaborate value added services from the customer's premise. Therefore, only the basic landline access is required from the telephone company.

Many economists believe that regulation is synonymous with inefficiency. This is based on analysis of investment characteristics of capital intensive regulated firms that were subject to "return on investment" regulation and were shown to be non

65

optimal (see "Behavior of the Firm under Regulatory Constraint", Averch, H. and L.L. Johnson, 1962 and "The Regulation of Monopoly", Roger Serman, 1989, pp 183-229). The application of this principle becomes moot if other forms of regulation used in recent years such as price cap regulation are employed.

In addition, the concept of a "public good" has been relatively elusive. In recent years private firms have taken the role of providing services that were previously deemed public services. The role that private industry plays has grown significantly as capital markets become more flexible, technology improves and barriers to market entry fall. Some economists believe that telecommunications is rapidly changing from the public good that requires regulatory oversight to a private service that may be offered more efficiently and effectively by competitive entrepreneurs.

Finally, the augment that monopoly market power is perishable. That is, the position of the monopolist or monopoly telecommunications provider will be eroded by technology, changing customer needs and preferences and increased competition. This may be true in a market that is open to any participants and there are competitively priced alternative services. However, in Egypt the entry and survival of a direct competitor to ARENTO is dubious for political and economic reasons.

In summary, in the case of an autonomous ARENTO, the K&M Team finds that regulation is required in certain aspects of the telecommunications sector. The recommended regulation should not address direct resource allocation and sourcing but be targeted at basic service pricing and service standards. The regulation should also target the use of finite and monopoly granting telecommunications resources in the form of radio spectrum used for public and private communications purposes. Communications regulation should be well focused and as non intervening as possible on the daily operations of communications firms.

The concept of regulation should apply to telecommunications and communications firms as well. This is due to the nature of overlapping use of finite national radio spectrum resources and the collision of technology in the provision of telecommunications (two way or point-to-point communication) and the broader definition of communications which includes broadcast services as well.

4.4.4.4 Countervailing Power

An autonomous ARENTO with legally granted exclusive market rights in Egypt for all telecommunications services will exert the classic example of monopoly market dominance. The question is whether or not this may be injurious to the people of Egypt and the economy of the country. Monopoly and its attendant economic profits may be reallocated away from telecommunications for other uses. The question then becomes who controls the use of economic profits? In the current situation, other ministries and sectors of the economy obtain use of the monopoly surplus gained from the sale of services. Although the price levels for local access are suppressed well below average cost, monopoly profits exist in ARENTO from other subsidizing services. These profits contribute to the earnings taken from ARENTO by the Minister of Finance and the Ministry of Telecommunications.

The use of specifically targeted regulation should not yield the same result as the current situation. Regulation, if structured correctly, can become a substitute for competition. Prices could be regulated to achieve nearly the same expected result as those in a competitive telecommunications market. Through the use of the long run incremental cost pricing model developed for ARENTO in Task 6 of the Cost of Service/Rate Study performed by the K&M Team, competitive pricing levels can be achieved and the need for subsidies to provide basic service can be significantly reduced. The resulting effect on the economy of Egypt is a better use of telecommunications resources and the elimination of pricing distortions that generate telecommunications market risk.

Regulation should also serve to protect the telecommunications consumer. Through competitive price emulation, resources will follow the appropriate market signals given by the Egyptian telecommunications consumers. The regulators must also define for the monopolistic telecommunications provider, expected service levels that consumers need and can afford . The consuming public have no alternative but to accept the levels of service provided by a monopolist. The regulatory agency should be the focal point for consumer opinion regarding service levels and apply regulatory pressure to achieve desired levels in the absence of free competition.

Regulation should act to protect the existence of the telecommunications firm by encouraging investment and staying out of day-to-day operations. The regulatory body for Egyptian telecommunications should regulate very little relative to telecommunications basic services other than price ceilings or caps and expected service levels. They should become aware of long run incremental costs of providing these services which will serve as a floor for service pricing. If basic service price are lower than this floor then the service is being subsidized by other services which creates resource use distortions and non competitive prices.

The regulatory body should take the responsibility to allocate Egypt's finite communications resources such as radio frequency. Frequency could be sold to the highest bidder which would enable the owner to resell the spectrum later for other higher valued uses. The K&M Team is well aware of how wire and wireless communications are becoming more intertwined. For example, changes in the cost of wireless technology have created the potential for wireless access to substitute for landline distribution. Unless frequency is managed and alternative technologies are evaluated, Egypt may well find itself like the US frequently reallocating radio frequencies from previous uses to new uses. For example, if the frequencies for cellular radio are changed, the transmission properties of cell stations may well be altered. This, in turn, may either create the need to obtain new investment to relocate and retune the cells or result in the exit of the cellular service provider from the business. Most countries realize that radio spectrum is a critical national resource that should be managed centrally and constantly monitored relative to its use.

Another national resource that should be managed is the numbering plan used by Egypt. Telephone numbers in other countries have been used to create competitive advantage and management has subsequently moved the function from individual

67

industry participants to a central administrative body. Whereas, day-to-day management of the numbering plan can be accomplished by the industry participants, long-term planning and allocation should be the responsibility of the regulatory body.

4.4.5 Summary of Conclusions

The analysis of the Egyptian telecommunications sector relative to regulatory reform indicates that Egypt has a problem in realignment of control over the sector that is not atypical. The problem manifests itself in terms of slow or negligible reform of prices, productivity and sector financing alternatives. By examining successful commercialization efforts that have occurred in other countries and reviewing the evolution of successful regulation, a prescription for the Egyptian telecommunications sector success can be derived.

ARENTO is a monopoly and possesses the potential to create a misallocation or waste of vital Egyptian resources. Although its current monopoly power is curbed by ministry intervention, the intervention has created inefficiencies in the production and planning processes within ARENTO and significant barriers to Telecom sector policy reform. The result is an environment with business risk over and above the risk provided by market forces. This will tend to undervalue the assets and market potential of ARENTO if commercialization is pursued.

Two primary aspects of the proposed sector reform are required for improving the outlook in Egyptian telecommunications investment. First, ARENTO requires autonomy. The enterprise needs to repair its internal processes that have been unlinked through ministerial intervention. Second, a well focused countervailing power to the autonomous ARENTO must be put in place to create a framework for Telecom sector participation. This will be a key to ensuring that commercialization brings the best results to Egypt.

The implementation of these two facets of the prescription for reform should take place in a three phased approach over a period not to exceed four years. In the first phase, the existing law should be enforced and intervening decrees overridden to provide autonomy for ARENTO. The groundwork for changing the legal oversight for the telecommunications sector should also be laid in Phase I. Phase II should include further movement toward commercialization of ARENTO by adopting a government held corporation status for ARENTO. The cornerstone of Telecom sector success should be implemented in Phase II in the form of an industry oversight body called the Arab Republic of Egypt Communications Commission (ARECC). This body should regulate only the essentials to ensure the greatest value of ARENTO assets and competitive prices and service levels are achieved. This is to be accomplished through regulation of basic service prices and Telecom sector plan development. In the final phase, the stage is set for telecommunications attraction of outside investment that will benefit the consumers, employees of ARENTO and the Government of Egypt.

The specific regulatory and sector reform scenario outlined in this study does not represent the only solution to the telecommunications sector problems. However, the K&M Study Team believes is stands the greatest chance for success both from the viewpoint of acceptance by all facets of Egyptian society and from the standpoint of the Telecom industry itself.

68

4.5 RECOMMENDATIONS

A THREE PHASED APPROACH TO TELECOM SECTOR REFORM

4.5.1 General Approach

The analysis of the telecommunications sector in Egypt indicates the need for rapid implementation of two guiding principles. First, autonomy must be fostered in ARENTO to:

- Promote short-run and long-term efficiencies of operation,
- optimize the return on invested Telecom sector resources,
- Position the sector for commercialization,
- Increase the value of commercialized assets,
- Define clear responsibilities for ARENTO successes and failures,
- Include greater telecommunications market and customer influence on ARENTO decisions.

Second, a countervailing regulatory agency must be created to:

- Protect the telecommunications consuming public,
- Develop long-term telecommunications sector plans,
- Provide project management for increased telecommunications commercialization,
- Manage finite telecommunications radio spectrum and numbering plan resources,
- Establish telecommunications standards and manage Telecom sector participant interactions.

The recommended three phased approach is shown on EXHIBIT 4-1 - "Phases of Telecom Sector Policy Reform".

EXHIBIT 4-1

PHASES OF TELECOM SECTOR POLICY REFORM

Phase I
"Positioning for the Future"

- ARENTO Budgets/plans approved by the Board of Directors & Minister of Telecommunications
- Advisory Group established to assist the Board of Directors

  - Commercialization and Joint Venture Recommendations
  - Outline National Telecom Plan & Objectives
  - Begin Telecom Database Development
  - Detail Telecom Oversight Activities

- Minister of Telecommunications, Board of Directors and Advisory committee Frame New Decree to Create ARECC.
- Minister of Telecommunications issues Decree Authorizing the Board of Directors to be Autonomous.
- Board of Managers created in ARENTO.

Phase II
"Implementation Stage"

- Establish ARECC with Minister of Telecommunications as Chairman
- Commission Staff Organized
- Other Communications Public & Private Fall Under ARECC Purview
- Commission Establishes Telecom Standards
- Complete Egyptian National Telecom Plan

  - Service Pricing
  - Network/Technology Evolution
  - Emergency & Disaster Recovery
  - Commercialization Schedule

- ARECC Manages National Radio Spectrum Use & Numbering Plan
- Hearing Process Formalized
- Minister of Telecommunications Reports Directly to the President
- Establish Separate Unit for "Telephone Operations"

  - Revise Board of Directors
  - Gvmt Held Corporation
  - Issue Stock & Debt Instruments & Pay Dividends

Phase III
"Positioned for Excellence"

- ARECC Implements Commercialization Plan
- ARECC Monitors Telecom Performance & Standards
- ARENTO Proposal for Commercialization

  - Stock Proposal for commercialization
  - Joint Venture Tenders Evaluated

4.6 POLICY REFORM-PHASE I

"POSITIONING FOR THE FUTURE"

4.6.1 Reclaim Autonomy By Decree

The first phase is a strict adherence to the Public Law No. 153 through a decree issued by the Minister of Telecommunications that authorizes the ARENTO Board of Directors to be autonomous. This will break the decrees and other more informal forms of intervention from other ministries. As of the date of the decree of autonomy, the ARENTO Board of Directors will have approval authority over all planning, budgeting, financing and organization of ARENTO. The Minister of Telecommunications will continue to have the responsibility of oversight of ARENTO.

The current ARENTO Board of directors consists of the following members:

ARENTO BOARD

Eng. Mahmoud El Soury - Chairman of ARENTO
Eng. Mohamed El Selim - Vice Chairman Operations & Maintenance of ARENTO
Eng. Mahmoud El Nemr - Vice Chairman for Finance, Administration & Commercial Affairs of ARENTO
Dr. Abd El Meneim Bilal - Director of National Telecommunications Institute (NTI)
Mr. Aly Nigm - Chairman Delta International Bank
Mr. Khairy Hashim - President of Workmen's Union
Eng. Mohamed Wagdi Abd El Hamid - Chairman of Egyptian German Telecommunication Industry
General Farouk Abu El Enien - Director of Signal Corp. (Army)
Mr. Aly Awad Saleh - Deputy State Council
Eng. Mohie El Din Adb El Latif - Chief of National Democratic Party (NDP)-Cairo
Vacancy

This Board consists of a cross section of three ARENTO executives and seven others who represent various interest groups. Restructure of the Board is considered in later phases as ARENTO moves to greater commercialization.

4.6.2 Establish an Advisory Board

An advisory group is to be established in Phase I to assist the ARENTO Board of Directors in laying the ground work for the regulatory body to be installed in Phase II. This advisory group may consist of members of the National Telecommunications Institute (NTI) of Egypt and representatives from business and residence market segments. The advisory group or council should consist of at least five members with three representing market segments including the military and the remaining two members representing NTI relative to telecommunication technology and legal council, respectively.

The advisory group will provide the ARENTO Board of Directors with guidance relative to commercialization and joint venture opportunities, provide the Board and the Minister of Telecommunications an outline of a comprehensive national telecommunications plan that describes the long term or ten year evolution of service prices, network design and technology, national communications emergency and disaster recovery and Telecom industry commercialization schedules. The plan should consist of narrative and quantitative objectives to guide decision makers.

The advisory group will also work with ARENTO staff and the Board of Directors to establish a telecommunications information and data base for Egypt. This information base will enable the new regulatory body to conduct analysis of telecommunication industry performance and trends. It will also form the basis of decision making by the ARENTO Board of Directors.

The advisory group will work with the Minister of Telecommunications and the ARENTO Board of Directors to frame a new decree to create the Arab Republic of Egypt Communication Commission (ARECC). This decree should be designed to separate ARENTO into two autonomous groups. One group becomes the regulatory body (ARECC) and the other group becomes a franchised telephone operating company. This decree should entail the creation of a five person commission as described later in this study. In Phase I the Advisory Group will begin detailing the responsibilities of the regulatory body to be included in the decree and begin to identify the people best suited to function as staff to the regulatory body created in Phase II. The Minister of Telecommunications should establish a well organized campaign to ensure that legislators and other ministries are familiar with the need for the Commission.

4.6.3 Designate a Board of Managers

Also in Phase I, ARENTO will designate a Board of Managers to accept the responsibility of running the day-to-day operations of the enterprise and designing programs to carry out the decisions of the ARENTO Board of Directors. Public Law No. 153 outlines the responsibilities of the Board of Managers in detail.

4.6.4 Resolve Legal Issues-Follow the Spirit of the Law

The focus of Phase I is to create ARENTO autonomy and lay the foundation for a countervailing regulatory authority. The time allotted for this phase should be no longer that one year to frame the decree and identify the staff participants. A list of prioritized issues relative to Public Law No. 153 is presented in EXHIBIT 4-2 - "Prioritized Legal Issues Relative to ARENTO". These recommendations should be reviewed by the ARENTO Board of Directors and the Advisory Council before actions are taken.

Implementation of the following ten issues should result in the desired level of autonomy for ARENTO and give the Board of Directors authority to guide the enterprise effectively.

EXHIBIT 4-2
PRIORITIZED LEGAL ISSUES RELATIVE TO ARENTO
Page 1 of 2

- Change Tariffs: The administration of Article 12 of Law 153 (see attachment A) constrains pricing adjustments for "basic telephone service". There is no formal process for requesting or evaluating the need for rate and tariff changes. The current process is based on informal discussions that may lead to informal concurrence to propose changes in the tariffs. As more likely than not, however, there is rarely concurrence that tariffs should be changed, consequently rate changes are not proposed leaving rates historically below costs for some services that require subsidization from rates of other services. Under Law 153, rate changes must be proposed and approved by the ARENTO Board of Directors and subsequently reviewed and approved by the High Policy Committee. If approved by the High Policy Committee, a decree is issued by the Ministry of Telecommunications whereupon the changes become effective. If the Board of Directors approved rates are not approved by the High Policy Committee, any difference resulting in revenue shortages are to be paid by the GOE to ARENTO. In actual practice, to avoid paying revenue shortages that may develop if rates are not approved, the only proposals that are sanctioned by the GOE to be put forward are those proposals where there has been informal concurrence and agreement that the changes would be approved. Hence, there are never proposals put forth, no matter how meritorious, that would be disapproved. This informal proposal and approval process prevents cost based pricing for basic services and deters revenue generation adequate to cover investment. The process places any proposed price increases for basic service in a highly political arena for approval.

- Cost Based Tariffs: Article 11 of Law 153 states that all services covered under the law should be based on correct standards of cost accounting. This article is being ignored relative to pricing local access and usage of telephone service.

- Reimbursement: Law 153 Article 12 Item 3 states that GOE must reimburse ARENTO from the General Fund for the provision of services that do not generate revenues to cover costs. This provision is currently being ignored and creates the need for increasing the price to consumers for local access and usage.

- Custom Duties: Law 153 Article 11 states that ARENTO is exempt from customs duties for all foreign equipment purchases. The Minister of Finance has subsequently been enforcing another law that assesses significant import duties on ARENTO for equipment purchases. This enforcement is in violation of Article 28 which states that "any other regulations contradicting this Law (Law 153) is henceforth canceled."

- Retain Project Earnings: Article 8 of Law 153 states that ARENTO may retain or keep net surplus funding for projects to provide telephone services covered under the law. Currently, ARENTO has been subject to funds withdrawal by the Ministers of Finance and Transportation for use on non telecommunications projects.

EXHIBIT 4-2
PRIORITIZED LEGAL ISSUES RELATIVE TO ARENTO
Page 2 of 2

- ARENTO Chairman's Salary: Article 16 of Law 153 gives President Mubarak the responsibility for appointing the Chairman of ARENTO specifying the Chairman's salary and allowances. This appointment has not included mention of a salary level and, as a result, the Chairman's salary is subject to the published government scale. The Chairman's salary is not set at competitive levels compared to like positions in telecommunications firms in other countries. In order to attract the best talent for the Chairman's position, the law should be followed to create a competitive salary.

- Salaries: Law 153, Item 18 and 26, states that wages, salaries, bonuses and incentives are issued by a decree from the Minister of Telecommunications after the approval of the Board of Directors of ARENTO "regardless of the governmental rules and regulations". Under the current decree ARENTO is restricted to government scale relative to the way it compensates its employees which falls under the responsibility of the Minister of Telecommunications. The current decree should be amended to include salary self-determination in ARENTO that will enable the recruitment and retention of high quality management, supervisory and craft employees.

- Employee Procedures: Item 18 and 26, provides that regulations for other aspects employee procedures including recruitment, employee evaluation procedures and promotions are issued by a decree from the Minister of Telecommunications after approval by the Board of Directors. Under the current decree ARENTO is restricted to general government practices. This law should be amended to allow employee practices to be self-determined by ARENTO in order for proper and competitive incentives to be initiated.

- Organization: Under Law 153 ARENTO and its Board of Directors have the authority to set organization structure. Currently, the organizational structure has been subject to approval by the Central Agency for Organization and Administration. We suggest that the law should be followed to allow ARENTO to configure operations to meet the needs of the marketplace. This would include reducing manpower in some areas and refocusing it in other areas to reflect the changing technology and service requirements.

- Board of Managers: Law 153 Items 21 and 22 outline the membership and responsibilities of a Manager's Board that would assist the Board of Directors in the evaluation of various alternatives and opportunities available to ARENTO and ensure the implementation of approved projects. This portion of the Law should be implemented to improve information flow between ARENTO and the Board of Directors as well as to empower the Manager's Board to accomplish approved programs.

74

4.7 POLICY REFORM-PHASE II

"IMPLEMENTATION STAGE"

In Phase II the Commission is formally established and its members are proposed by the Board of Directors of ARENTO and the Minister of Telecommunications. Membership on the ARECC is by appointment from the President of Egypt. The four members of the advisory group may be quickly transformed into the working ARECC upon approval of the President. The Minister of Telecommunications could accept the additional role as Chairman of the ARECC to ensure consistency in telecommunications policy application and define the Minister's oversight of the industry in general and not the newly autonomous telephone operations unit within ARENTO.

4.7.1 Arab Republic of Egypt Communications Commission Overview

The ARECC is a separate, autonomous and independent ARENTO entity directly responsible to the Board of Directors to effectuate Egypt's national telecommunications policy. Established by legislation under authority contained in Public Law 153, it is charged with regulating communications by wire, satellite, cable, radio and television. Its jurisdiction covers all regions of the country and international communications to and from Egypt. One of the primary functions of ARECC is to set rates and service standards for all basic telecommunications services.

The ARECC is directed by five Commissioners appointed by the President of Egypt for 5-year terms, except in filling an unexpired term. The President designates one of the Commissioners, the Minister of Telecommunications, to serve as Chairman. The Chairman's tenure is at the pleasure of the President. No more than two Commissions may be members of a GOE cabinet ministry. None can have financial interest in any Commission related business.

The Chairman, aided by the Managing Director, administers the Commission's internal affairs. The Commissioners supervise all ARECC activities, delegating responsibilities to staff units and to committees of Commissioners.

4.7.1.1 ARECC Staff

Commission staff should be organized by function. There should be separate operating offices dealing with national telecommunications basic services, national radio and wireless services, international telecommunications and mass media or broadcast services. In addition, there should be offices such as the Office of Legal and Regulatory Policy, Office of Infrastructure Planning and Technology Standards, Office of Pricing and Economic Policies and an Office of Public and Legislative Affairs. A further description of the ARECC Staff is shown on the organization chart in EXHIBIT 4-5 - "Arab Republic of Egypt Communications Commission Functional Organization Chart" and discussed later in this study.

The staff will conduct activities that support the rulings of the Commission and support decision making by the Commission. This includes monitoring the radio spectrum to see that stations meet technical requirements, inspecting stations of all types, conducting

75

examinations and issuing permits and licenses to applicants found qualified, locating and closing unauthorized transmitters and telecommunications equipment, locating sources of interference and suggesting remedial measures, doing special engineering work for other governmental ministries and obtaining and analyzing technical data for Commission use.

The ARECC, with the assistance of its staff, oversees pricing changes, practices, classifications and regulations for foreign and national communication by wire, cable and radio; considers applications for construction of new facilities and discontinuance or reduction of service; acts on applications for mergers or joint ventures in telecommunications; and acts upon the granting of operating franchises and the introduction of competition into the telecommunications market place.

4.7.1.2 ARECC Functions and Responsibilities

4.7.1.2.1 Protect the Public Interest

The Commission is responsible for fixing and/or approving proper and adequate rates for all basic telecommunications services. The process steps for changing rates or other basic telecommunications service characteristics are described in APPENDIX M "Steps in Rule making". In addition to approving basic service rates for telecommunications, the Commission will review and approve plans that move toward the goal for the provision of basic service for all citizens of Egypt.

The responsibility for protecting the interest of the public extends to the control of commercialization within the telecommunications industry in Egypt. In this respect, the Commission is responsible for developing an effective plan for introducing and promoting commercialization of telecommunications which, in turn, should result in less basic service price regulation by the Commission over the long run. In addition, the ARECC is responsible for conducting investigations as necessary to determine the existence, impact and scope of commercialization in the telecommunications industry, including defining the dominant carrier or carriers, defining telecommunications markets and defining basic telecommunications services subject to price regulation. Until commercialization occurs, the ARECC will act on behalf of the people of Egypt to substitute basic service price regulation for competitive service pricing. In effect, ARECC will operate as a substitute for competition and protect the public interest by influencing rates and services of the Egyptian telecommunications industry.

4.7.1.2.2 Promote Communications Standards

Standards in communications are essential to the provision of an efficient and robust infrastructure.

The ARECC, with the assistance from its staff, will determine and resolve critical standards issues. They will ensure appropriate interface capabilities between communications network providers including ARENTO in Egypt. The ARECC will enforce these standards through license denial, fines or other penalties.

4.7.1.2.3 Resolve International Telecommunications Matters

The ARECC is charged with national administration of telecommunications provisions of treaties and international agreements to which the GOE is a party. Working with the Ministry of International Affairs, it participates in related international conferences. It licenses cable and radio circuits from Egypt to foreign points and regulates the telecommunications companies.

It will license radio stations of Egyptian planes and ships in international service, and , under international agreements and upon request, inspect the radio equipment of foreign vessels touching Egyptian ports. Further, it is the medium for resolving cases of interference between domestic and foreign radio stations.

4.7.1.2.4 Promote Safety and Protect Property

The Commission is also responsible for the safety of life and property of citizens of Egypt. That is the Commission shall investigate and study all phases of potential problems related to telecommunications that may threaten the safety and property of the citizens of Egypt. Telecommunications installation on police, fire and other protective systems are in this category.

4.7.1.2.5 Participate in Studies and Research

The Commission is required to study new uses of telecommunications including experimental uses of frequencies and generally encourage the larger and more effective use of telecommunications in the public interest. Cooperation is to be maintained with the GOE and commercial telecommunications research and development groups in Egypt. In connection with its research activities, the ARECC is to work closely with the National Telecommunications Institute (NTI), ARENTO - Telephone Operations and other telecommunications industry participants to carry out policy studies to provide information on complex questions facing the Commission.

4.7.1.2.6 Facilitate National Defense and Disaster Recovery

Wire and radio communication facilities that aid the national defense form one of the basic responsibilities of the ARECC. The Commission will work with the military to determine precisely what functions should be undertaken by the ARECC. The Commission should supervise the creation of an emergency broadcast system to notify and instruct the public in the event of an enemy attack or natural disaster. The ARECC cooperates with Egyptian telecommunications providers and other GOE authorities in the preparation of emergency plans. The Commission is responsible for developing and implementing a plan for Telecommunications relative to national emergency and disaster recovery.

4.7.1.2.7 Administer and Regulate Radio Spectrum

The ARECC is responsible for the administration, licensing and monitoring of radio spectrum use in Egypt. Since radio spectrum is a finite national resource which has

77

many public and private uses, the ARECC is responsible for oversight and regulation of this resource on behalf of the people of Egypt.

The ARECC processes applications for construction permits, assignment and transfer of control of licenses, licenses for all classes of non governmental stations; assigns frequencies, power and call signs; authorizes communications circuits; modifies and renews licenses; inspects transmitting equipment and regulates its use; controls interference; reviews technical operation; licenses radio operators (commercial and amateur); and takes remedial action when necessary. The Commission does not license equipment used for reception only.

The Commission allocates spectrum space for radio and television broadcast services; assigns frequencies and call identifiers to stations; designates operating power and sign-on and sign-off times. The Commission also issues construction permits and inspects technical equipment. In order to promote commercialization of communications, the Commission may limit the number of broadcasting or communications outlets that any one individual or company may own. For example, the Commission may hold that the same owner cannot operate more than one station of the same kind in the same place. Since radio and television stations are not classified as common carriers, the Commission does not regulate their rates.

The Commission will not judge or censor program content. It will not have any regulatory responsibility in the program content area. It will ensure, however, that certain rules relative to good broadcasting and communication are adhered to including station identification.

4.7.1.2.8 Rate Change Requests

The ARECC is a governmental agency which approves basic telecommunications service rates and standards for all telecommunications providers in Egypt. The Commission must be prepared to consider many cases each year involving proposals to change basic service rates that are charged to customers. Rate cases resemble other kinds of court cases with which most people in Egypt are familiar.

The central issues in most rate cases are usually the same. Should the telecommunications firms be granted basic service rate increases? If so, how should the prices be structured and from which groups of customers will the firm collect the revenue? A basic service rate increase request filed by ARENTO - Telephone Operations or other telecommunications firms must be followed by a public hearing.

4.7.1.2.9 Public Hearing Process

An ARECC case is usually heard by the entire Commission along with its General Council. The Public Affairs Staff of the ARECC is responsible for providing public notice of the rate case and public hearing at least thirty days prior to the hearing. This notice takes the form of a "Rate Change Application Notice" and must appear at least once a week for four consecutive weeks in newspapers that are widely circulated in Egypt. This notice gives interested parties an opportunity to record complaints with the

Public Affairs Office of the Commission or to request to participate in the proceedings as an intervenor. All hearings are open to the public.

An intervenor is any individual or group that has shown an interest in the outcome of the case and has made a timely written request for intervenor status. The ARECC General Council recognizes intervenors at a prehearing conference. Intervenors may include ARENTO Telephone Operations customers, city governments, businesses, industries, or other organizations. Intervenor status allows a party to present testimony and to cross-examine witnesses. Each intervenor also receives notice of all hearings and copies of all documents filed in the cases.

The ARECC General Council holds a prehearing conference in which participants in the case settle any questions regarding the procedure to be followed during the hearing. Intervenors are named, the dates for submitting evidence and testimony are set and the hearing date and time is established.

At the beginning of the hearing, service customers may appear to comment on any part of the application for rate increase. These service customers should register themselves as intervenors with the ARECC Public Affairs Office before the hearing begins. The telecommunications firm representatives, public intervenors and ARECC General Council make opening statements. The telecommunications (ARENTO) representative presents the case supporting the application for basic rate increases. In the rate case, the telecommunications firm must generally prove that its requested rate change is reasonable and necessary. The intervenors and the ARECC General Council cross-examine the ARENTO Telephone Operations witnesses. Each intervenor presents oral testimony which is subject to cross-examination by the ARENTO Telephone Operations General Council as well as ARENTO Telephone Operations representatives.

The ARECC General Council presents the ARECC staff findings and position to the Commission. ARENTO - Telephone Operations and intervenors cross-examine staff witnesses. ARENTO - Telephone Operations is then entitled to present rebuttal testimony to refute the positions of any of the other parties (staff or intervenors). All parties make closing statements and/or file legal briefs summarizing their positions.

After the hearing has adjourned, the ARECC weighs the evidence, reaches a decision and writes a report or "final order" describing a course of action which is reviewed by the General Council to ensure appropriate legal terminology. If the ARECC feels that adequate evidence has not been presented to reach a decision, they may vote to remand the case for further hearing. The report in the form of either a "final order" or "remand" is distributed by the ARECC Public Affairs Office to the telecommunications firm, intervenors and the ARECC staff.

4.7.1.3 ARECC Staff Offices

This section generally describes the functions and responsibilities of other ARECC Staff Offices. Phase I activities by the ARENTO Board of Directors Advisory Group will further define Staff Office roles.

Communications Information & Industry Compliance

This office is responsible for determining the telecommunications information needed by other staff offices and the ARECC itself. This section will develop an Egyptian Telecommunications Data Base that will serve to provide information for developing long range network infrastructure and market structure plans and provide Egyptian Telecom sector performance results that can be used to influence Commission decisions.

This office will acquire descriptive network and network performance information for all public and private Egyptian communications industry participants. It will store special instructions and responsibilities of each industry participant for network restoration after national emergencies or disasters. In addition, this section will establish schedules for monitoring network performance and adherence to technology standards set by the ARECC. For example, this group will be responsible for monitoring radio frequency use and detecting violations. The manpower associated with these responsibilities includes field personnel who actively gather and report industry compliance information. This information is to be collected through site inspections and surveys.

Detailed accounting or financial analysis of either public or private sector participants will not be conducted by this office. This is due to the fact that the ARECC will not become involved in rate of return regulation. This office will, however, obtain sector participant incremental cost of basic service information to be used by the Office of Pricing and Economic Policy in rate analysis.

The Office of Communications Information & Industry Compliance will issue and record common carrier licenses upon the approval of the ARECC. They will also track industry prices for all services including those that are not price regulated. In general, this office will be staffed with current ARENTO - Telephone Operations employees and others that currently conduct similar activities.

4.7.1.3.1 Office of Infrastructure Planning and Technology Standards

This office is responsible for providing a major contribution to the development of the "Egyptian National Telecommunications Plan" that will serve as a road map for ARECC decisions. The plan is intended to be high level with regard to the description of the national network that includes public as well as private components. The plan will also describe the desired technological solutions to be implemented, generic services to be provided and a description of the public and private participants in the telecommunications sector. It will serve as a guide to public and private telecommunications enterprises regarding the development of tactical plans to meet national telecommunications expectations and milestones. It will also serve as a guide to the ARECC that identifies critical points in the evolution of the Egyptian telecommunications industry and points in the Telecom infrastructure where competition can be introduced and promoted.

This group is responsible for determining private and public network performance and interface standards. They will assess the international telecommunication community of interest of Egypt and ensure appropriate national and international network standards are

80

identified and communicated to the participating public and private Telecom enterprises. This is to be accomplished to prevent proprietary Telecom equipment that does not meet the planned network infrastructure requirements from being placed in the national public and private network.

This office is responsible for the planned allocation of national communications resources and the national "Numbering Plan". For Example, the allocation of radio frequencies base of a long-range telecommunications technology and industry evolution plan is to be facilitated by the office. The current ARENTO - Telephone Operations employees that serve on the frequency allocation committee are an excellent source of manpower for this office.

4.7.1.3.2 Office of Pricing and Economic Policy

The Pricing and Economic Policy group is responsible for ensuring that monopoly pricing does not appear in the Egyptian telecommunications marketplace. This office is critical to the protection of the Egyptian public against telecommunications monopoly pricing. They will exercise the principle of "show cause" in the evaluation of telecommunications basic service price changes offered to the public sector. For example, they will evaluate the evidence for local rate increases that may be proposed by ARENTO - Telephone Operations and determine if the public interest is served by the increase. They will present their findings to the ARECC to facilitate appropriate judgment by the Commission on an ARENTO - Telephone Operations basic service price increase request.

In addition, this office will specifically identify when and if, services are to be considered non-regulated or "basic services". Although ARENTO - Telephone Operations is classified as a public telecommunications provider, they may offer specific unregulated services such as call waiting, call forwarding. voice messaging and others that can by priced by ARENTO - Telephone Operations without approval of the ARECC or any other government organizations.

This group will provide comment and analysis to the ARECC regarding proposed national and international telecommunications enterprise mergers and acquisitions. Since the ARECC has approval authority on all mergers and acquisition of public or regulated telecommunications firms in Egypt, this group will provide the economic impact analysis of these business relationships.

The Office of Pricing and Economic Policy will provide service pricing and market structure plan contributions to the "Egyptian National Telecommunications Plan". These contributions outline sector commercialization timelines based on market analysis and the technology plan information derived by the Office of Infrastructure Planning and Technology Standards.

This office will also be a key participant in the public hearing process and provide testimony and comments to the ARECC on the justification of requested price changes. As a result of these responsibilities, the Office should be staffed by experienced

81

ARENTO - Telephone Operations, NTI or newly hired personnel that have extensive backgrounds in telecommunications economics and service pricing.

4.7.1.3.3 Office of Legal and Regulatory Policy

This office is to cast ARECC decisions in the appropriate legal structure to become law. It is to provide interpretation of existing laws and decrees and advise the ARECC of potential legal conflicts and decision precedents. This group is also to direct suits against violators of ARECC decrees and promote legal settlement of outstanding suits.

It is to provide straightforward interpretation and notice of ARECC pending decisions and final rulings to various telecommunications industry participants by working through the Office of Public and Legislative Affairs. The primary role of this group is to provide ARECC with legal council an all matters brought before it. It is to manage and facilitate the public hearing process described later in this study.

4.7.1.3.4 Office of Public and Legislative Affairs

This office is the liaison between the ARECC and mass media, the public and the executive and legislative branches of the Government of Egypt. It is responsible for publishing hearing notices and the results of hearings and ARECC decisions in the form of final Commission rulings. This office is also the information and education arm of the ARECC on telecommunications issues to the various members of the Peoples' Assembly. This group may be the smallest of the ARECC Staff organization but must be populated with experienced public and legislative affairs people.

4.7.1.3.5 Office of National Telecom Services

This office serves as the subject matter expert on the basic local and national telecommunications service offered by ARENTO - Telephone Operations and any other provider of basic services. This group recommends service objectives for basic local and national telephone service and monitors through the Office of Communications Information and Industry Compliance basic service pricing and service levels. Services addressed by this office include local business and residential access, priority service, call allowances, national toll subscriptions and national toll services. Service levels include transmission quality, call completion, service outages, and service waiting list administration. In addition, this office provides assistance to the Office of Pricing and Economic Policy relative to detailed analysis of basic service long run incremental costs. It also develops and monitors the productivity of ARENTO - Telephone Operations and other price regulated service providers (if any). Productivity monitoring will be useful if price cap regulation is adopted by the ARECC.

4.7.1.3.6 Office of International Communications Services

The same functions performed for local and national services are applied by this office on international communications services. This includes subscription rates, international toll rates, discount plans and service levels for international telephone and telex services. This office should be aware of the incremental cost of providing international services

82

and the degree of subsidization to other basic services that flows from international telephone services.

This office is also responsible for identifying any issues that may derive from international telecommunications interface such as standards and service levels. ARENTO has experienced international services manpower to fill vacancies in this group.

4.7.1.3.7 Office of National Radio and Wireless Services

The same functions performed by the previous service aligned offices are performed by this group. They have an additional focus on spectrum requirements an use. Frequency use and service level monitoring is a key function of this group to ensure customer expectations are met. This group does not perform either cost or price analysis since this industry component is not to be price regulated. NTI and ARENTO - Telephone Operations have wireless expertise that can be tapped to create this group.

4.7.1.3.8 Office of Mass Media and Broadcast Services

This office monitors radio and television frequency use for all broadcast applications. They recommend broadcast licensing policy and comment to the commission on the viability of license applicants. In addition, this office recommends National Service Objectives specifically relative to Emergency Broadcast System participation by the radio and television broadcast industry in Egypt. NTI and the broadcast industry itself may provide the expertise to staff this group.

4.7.1.3.9 Office of Managing Director

This office is the administrative arm of the Commission. The Commission Managing Director will establish a review docket or schedule of issues to be addressed by the Commission. The Office of the Managing Director will provide other support to the Commission in terms of human resources management, ARECC and ARECC Staff budgeting and financial reporting, "National Telecommunications Plan" coordination and publication as well as various other administrative functions.

4.7.1.4 Alternative Methods of Public Participation in the Oversight Process

Citizens of Egypt may participate in the ARECC decision making process in other ways besides becoming designated as intervenors and speaking at rate hearings. They may write letters or petition the ARECC stating their position about the rate request. All letters and petitions are received by the ARECC Public Affairs Office and placed in a case file held by the General Council. The case file is then reviewed by the ARECC before the hearing.

4.7.2 Proposed Role of ARENTO

The ARENTO Board of Directors also accepts broadened responsibilities during this phase. Under this proposal the Board will have primary responsibility for the following:

- Approval of the five-year capital investment and project plans,
- Approval of annual operations budgets,
- Propose ARENTO - Telephone Operations product and service price changes to the ARECC,
- Approve organization changes, employee promotions and employee compensation structure (see "Operation Organization" Section 5).
- Approve operational and project funds sourcing from ARENTO internally generated funds, national loans or foreign loans to ARENTO,
- Declare dividends on ARENTO stock held by the Minister of Finance on behalf of the GOE.

This list reveals a major change in the way ARENTO operates relative to the GOE. In the first phase an agreement is reached with the GOE through the Minister of Telecommunications to issue either preferred or common stock to the GOE as shares in the equity of ARENTO - Telephone Operations. During this phase, the Board of Directors for ARENTO - Telephone Operations will declare dividends to be paid on each share. This moves ARENTO - Telephone Operations closer to a commercialized firm and provides Board members experience in running a commercialized enterprise.

As previously discussed ARENTO occupies the role of primary public sector provider of telecommunications services in Egypt. Under the Study Team proposal, this primary role is continued. The ownership and management of finite public telecommunications radio spectrum, however, transfers to the ARECC which grants licenses for its use by public or private telecommunications providers such as ARENTO - Telephone Operations. In this sense the purview of ARENTO - Telephone Operations is narrowed but this is offset with greater autonomy in operations and investment decision making.

The role of other ministries in the ARENTO planning and budgeting processes reflects a wide and dispersed decision making authority relative to ARENTO investment and financial performance management. This Study Team recommends that the following points need to be addressed in Phase II relative to the influence and management of ARENTO - Telephone Operations by other ministries:

- Item 1 of Law 153 should be changed to eliminate the reporting relationship of the Chairman of ARENTO to the Minister of Telecommunications and replace it with a direct reporting relationship to the Prime Minister or preferably the President of Egypt,
- Eliminate Item 20 of Law 153 which requires board decisions to be submitted to the Minister of Telecommunications,
- Change the provisions of Item 26 of Law No. 153 to eliminate the Minister of Telecommunications reference and replace it with the ARENTO Board of Directors,

P4

- Eliminate all other references to the direct authority of the Minister of Telecommunications in Public Law No. 153 and replace it with references to the President of Egypt with the exception of Item 12 mentioned below,

- The provisions of Public Law No. 153 are strictly enforced which preclude ARENTO five-year or capital investment plan approval by any ministries of the GOE,

- The provisions of Public Law No. 145 relative to the approval of the ARENTO annual operations budget is strictly enforced which excludes review and approval by any GOE ministry,

- Item 12 of Public Law No. 153 which involves the Minister of Telecommunications and the Cabinet in rate making approval should be revised to substitute the newly proposed ARECC for sole rate approval,

- In addition to these changes relative to other ministry influences, the make up and appointment of the ARENTO Board of Directors described in Item 17 of Public Law No. 153 should be changed to include only the following Board members:

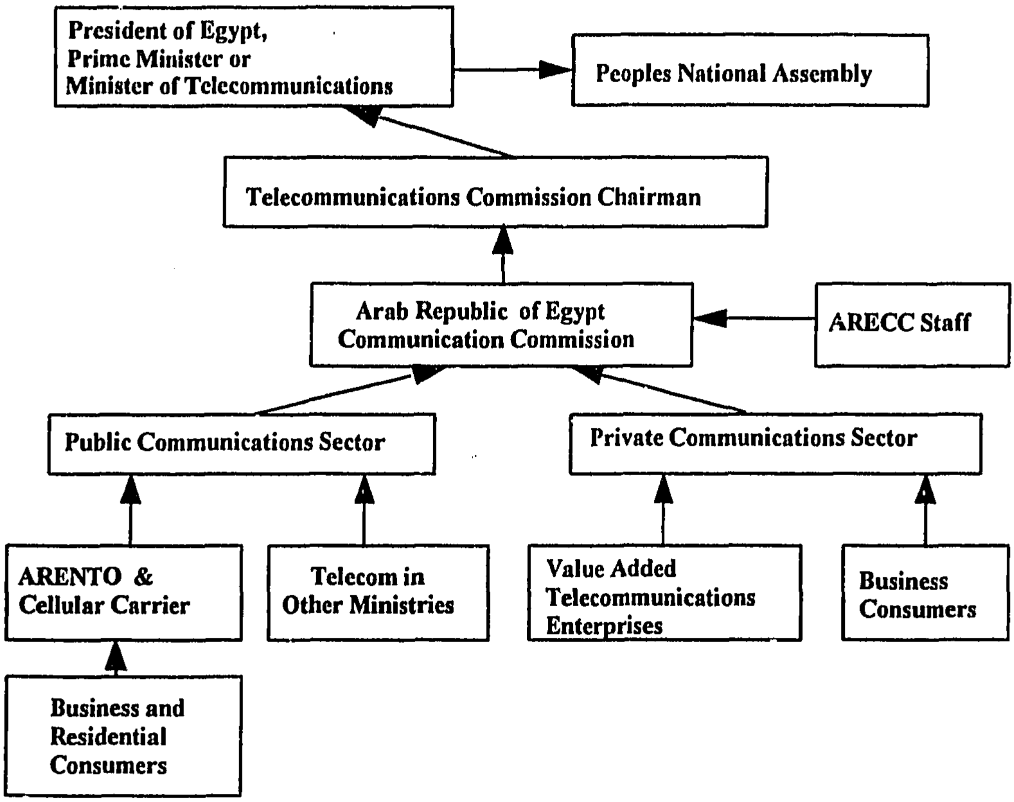
    - ARENTO Chairman (Chairman of the ARENTO Board of Directors)
    - ARENTO Vice Chairman of Finance Administration and Commercial
    - ARENTO Vice Chairman Planning
    - Deputy Minister of Finance
    - Deputy Minster of International Cooperation
    - Legal Council
    - Workman's Union Director
    - Business Community Representative
    - Residential Community Representative

The K & M Study Team recommends that the Board of Directors of ARENTO is reduced in size to accommodate potential new partners with commercialization and revised to create stronger market representation. The representatives from the Finance Ministry represents the stockholding entity of the GOE relative to the shares issued by ARENTO.

4.7.3 Role of Government in Telecom Policy

The role of the Government of Egypt in establishing telecommunications policy is shown below in EXHIBIT 4-3 "Egyptian Telecommunications Infrastructure Participants". The major participants in Egypt's telecommunications infrastructure development and the hierarchical role that the GOE plays in influencing the sector does not significantly differ from the policy hierarchy set out in Public Law No. 153.

EXHIBIT 4-3
EGYPTIAN TELECOMMUNICATIONS INFRASTRUCTURE PARTICIPANTS



In the proposed plan, the Minister of Telecommunication's role is to create the environment for telecommunications sector evolution that best meets the needs of Egypt. The Minister accomplishes this by using the Commission and its staff to define broad telecommunications industry infrastructure objectives which currently do not exist and define the rules of market conduct for the industry. This environment must protect telecommunications users from the monopolistic forces of some enterprises, define and establish guidelines for promoting competition in selected areas of the industry and establish a definitive plan for telecommunication infrastructure development and public telecommunication resource use.

A description of the proposed Arab Republic Communications Commission (ARECC) is shown in Exhibit 4-4 "Proposed Arab Republic of Egypt Communications Commission". This commission has sole governmental authority relative to telecommunications industry development and performance. Its authority is not to be superseded by any other ministry or governmental body. In addition, as shown in Exhibit 4-3 "Egyptian Telecommunications Infrastructure Participants", the Telecommunications Minister is to report directly to the President of Egypt to provide direct decision making authority on national and international telecommunications issues. This is to reduce the intervention on critical telecommunications matters from the vested interests of other ministries.

86

EXHIBIT 4-4
PROPOSED ARAB REPUBLIC OF EGYPT COMMUNICATIONS COMMISSION

Telecommunications Commission Chairman

Commission Members

Business Representative	Residential Representative	Government Representative	Industry Representative

Commission Staff

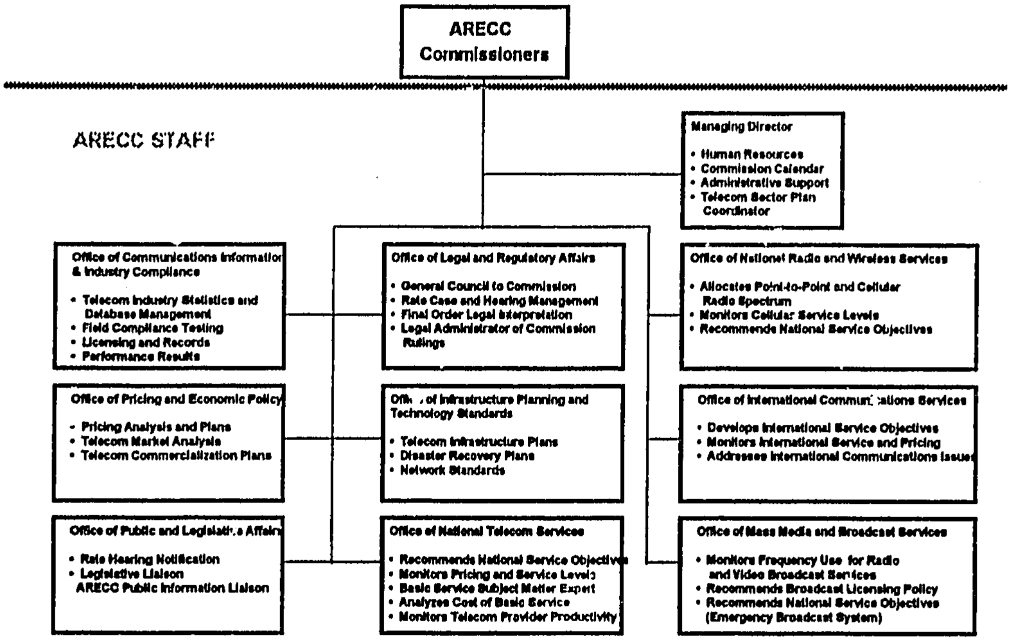
- **Communications Information & Industry Compliance**
- **Infrastructure Planning and Technology Standards**
- **Pricing and Economic Policy**
- **Legal and Regulatory Policy**
- **Public and Legislative Affairs**
- **National Telecommunications Services**
- **National Radio and Wireless Services**
- **International Telecommunications Services**
- **Mass Media and Broadcast Services**

The Commission is decidedly small to facilitate rapid but thorough education of the members and concise decisions on issue brought before it. The Commission consists of members that represent the major stockholder groups within Egypt and each is appointed by the President of Egypt for at least a five year term. Each member is selected to represent a point of view and a specific community of interest within the nation. Decisions from this group will manifest in proposed law to be delivered by the Minister of Telecommunications or (Chairman of ARECC) to the Prime Minister, the President and the Peoples Assembly, respectively, for approval.

The Commission Staff should be identified and the organization structure filled with the appropriately talented people. Many Candidates may come to the Commission Staff from ARENTO - Telephone Operations and NTI. The organization of the Commission Staff is described in Exhibit 4-5 "Arab Republic of Egypt Communications Commission Functional Organization Chart".

87

EXHIBIT 4-5
Arab Republic of Egypt Communications Commission
Functional Organization Chart



Issues brought before the ARECC will be directed by the appointed secretary of the Commission or "Managing Director". The Commission Managing Director will establish a review docket or schedule of issues to be addressed by the Commission. The Office of the Managing Director will provide other support to the Commission in terms of human resources management, ARECC and ARECC Staff budgeting and financial reporting, National Telecommunications Plan coordination and publication as well as various other administrative functions.

The ARECC Staff should consist of the best telecommunications experts who are appointed by the chairman of the ARECC from the staff of the National Telecommunications Institute (NTI) or ARENTO - Telephone Operations. These appointees may be full time or part time instructors at NTI but must have no conflict of interest in ARENTO - Telephone Operations or any other enterprise or organization that is regulated by the ARECC. Regardless, they should be premiere telecommunications professionals who are familiar with the latest technologies, analysis techniques and issues in the national and international telecommunications arena.

The ARECC Staff is responsible for educating each Commission member on the issues to be addressed and recommending courses of action to be taken by the Commission. Final decisions on all issues lie with the ruling of the majority of Commission members. In order

98

to further obtain information on some issues such as service pricing or service levels, the Commission may request public hearings. The ARECC Staff is responsible for facilitating the public hearing process and assisting the ARECC in acquiring information during the course of the hearings to make well informed decision.

4.8 POLICY REFORM-PHASE III

"POSITIONED FOR EXCELLENCE"

4.8.1 Present Commercialization Plan to the ARECC for Approval

In this phase ARECC implements programs to accomplish commercialization as described in the "Egyptian National Telecommunications Plan". The Commission has a knowledge of ARENTO - Telephone Operations performance and pricing subsidies are in the process of being eliminated or managed. During this phase, the ARENTO - Telephone Operations proposal for commercialization is presented to the Commission.

ARECC in conjunction with ARENTO - Telephone Operations prepares basic service quality, level and price benchmarks expected over the next five years with the joint venture. Benchmarks for other productivity measures such as employees per access line are developed and designed into a stipulated agreement. These benchmarks are written into a request for proposal released to interested parties to commercialization.

The ARENTO - Telephone Operations Board of Directors has a proposal that reformulates the Board of Directors to include members of the business consortium that will participate in the commercialization process. The ARENTO - Telephone Operations Board is prepared to grant the issuance of common stock to the commercialization participants. In addition, shares are set aside for distribution to employees. The Board of Directors have evaluated various tenders from potential joint venture partners. The Board has presented its recommended partners proposal along with an ARENTO - Telephone Operations revised Board Membership description and the stock distribution plan to the ARECC. A dividend payout plan for the first five years is also presented along with planned debt structure. In addition, the five year financial and operational results of a joint venture have been estimated by the Board and presented to ARECC.

4.8.2 The ARECC Holds Public Hearings and Renders Decision on Plan

The process culminates with a public hearing relative to the proposed commercialization and a decision rendered by the ARECC on the matter. After the tender has been accepted, ARECC designs a monitoring program to ensure that the joint venture is providing the expected level of service to the people of Egypt.

4.9 IMPLEMENTATION GUIDELINES

4.9.1 Resources

The funding for the ARECC with an approximate headcount of fifty staff employees and five commissioners may not exceed the existing salary requirements of ARENTO, NTI and other government agencies currently involved in the tasks described as the responsibilities of the ARECC. The incremental cost of the ARECC operation should be funded out of ARENTO and other public telecommunications firm's earnings. Currently, ARENTO will bear the cost of the ARECC. This investment in ARECC will more than likely pay for itself when the increase in the value of a successfully commercialized ARENTO is considered.

4.9.2 Action Plan Reform Timelines

A realistic timeline for the accomplishment of the three phased approach is shown in EXHIBIT 4-6. The first phase should not be hindered by any major barrier since the autonomy of ARENTO can be achieve largely by a single decree by the Minister of Communications to follow the existing law. The entire year of Phase I can essentially be used to preposition legislative and legal changes that will be required to implement the ARECC. Staffing the ARECC to adequate levels with the appropriate candidates may require one year to eighteen months. As a result, Phase II may require two years to complete. The solicitation and evaluation of commercialization tenders may require at least one year in Phase III.

EXHIBIT 4-6

PHASES OF TELECOM SECTOR POLICY REFORM

Phase I **"Positioning for the Future"**	**Phase II** **"Implementation Stage"**	**Phase III** **"Positioned for the Future"**
One Year	**Two Years**	**One Year**
1994-95	**1995-1997**	**1997-1998**

SECTION 5 ORGANIZATIONAL STRUCTURE AND OPERATIONS EXAMINATION AND ASSESSMENT

5.1 SUMMARY

Study Background and Purpose

ARENTO faces a number of constraints which if uncorrected will seriously impede the overall efficiency of its network and operations. These constraints involve pricing, financing, wage and salary administration, the retention of key personnel and institutional and organizational structures that require major changes within the political, legal and regulatory frameworks to resolve.

A comprehensive examination and assessment of the Egyptian Telecommunications Sector was initiated to determine the nature of changes to be made, the form they should take and how and when the changes might be implemented. Emphasis has been placed on recommendations where the goal is to enhance the efficiency and effectiveness of the Telecommunications Sector by increasing the institutional and fiscal autonomy of ARENTO. Two previous studies have been commissioned by the United States Agency for International Development (USAID) that have addressed some of these structural concerns. Those studies are:

1) *Operations Maintenance Study,* dated August 1993, performed by Teleconsult, Inc. and Harza Engineering, Inc.

2) *ARENTO Cost of Service/Rate Study* dated September 1993, performed by K&M Engineering

To provide USAID with a comprehensive evaluation, the findings from these prior studies have been thoroughly reviewed and relevant recommendations have been integrated into and made a part of this Policy Reform and Institutional Development Assessment.

This section of the Final Report the findings, conclusions and recommendations associated with Task 4, Organizational Structure and Operations Assessment.

Goals and Objectives

This examination and assessment of ARENTO's Organizational Structure and Operations will identify specific opportunities for improvements which will strengthen its long-term competitive and financial positioning through effective planning, operation and management of the telecommunications business. These improvements will be critical as plans are developed to attract external investments in conjunction with the Government of Egypt's (GOE) announced plans to move towards a market based economy.

The following objectives were established for this assessment:

- Consolidate and Integrate the relevant recommendations of previously described studies to resolve inconsistencies and establish a single, comprehensive set of recommendations that will best accomplish the stated goals

- Determine ARENTO's human resource requirements and how those requirements can be effectively met. This will include an examination of current organizational structures, staffing levels, personnel policies, compensation levels and policy, promotion practices, and training that are needed to enhance productivity and efficiency and to avoid the loss of productive personnel

- Identify improvements that can be made in the personnel management process

- Identify specific Organizational and Operational actions that are required to effectively support the Legal and Regulatory Reform and Self-Financing recommendations established in Sections 4 and 6 of this Final Report.

Study Scope and Methodology

The scope of the study will encompass the overall organizational and operational structure of the Telecommunications Sector, including any Ministries that either directly or indirectly effect the Telecommunications Sector.

The following are the major elements of the study methodology for completion of this assessment:

- Interview key personnel, both internal and external to ARENTO (see Appendix G - "Personnel Interviewed"), and investigate both the previous study conclusions and recommendations, and, then, validate recommendations from this current assessment effort.

- Establish external benchmarks for policies and performance through contacts outside of ARENTO. Interviews were conducted with the Vice Director-Transit Department of the Suez Canal Authority, the Head-Regional Office for the ARAB States of the ITU in Cairo and the Director-Exchange Carrier Service Agency in the United States and staff from GTE Corporation.

- Work closely with ARENTO counterpart personnel, as subject matter experts to assist in the validation of findings and conclusions. These counterparts were critical to the success of this Task.

The organizational structure and operations assessments covers a very broad area and to facilitate summarization, this summary section has been broken down into two primary areas - (1) Organizational Structure and (2) Operations Assessments as shown below.

- Organizational Structure Assessment
- Operational Assessment
    - Planning and Management
    - Revenues Generation
    - Employee Staffing and Development

Organizational Structure Assessment

Conclusions

- The "ARENTO Existing Organizational Structure" shown in Exhibit 5-1 focuses primarily on the technical and administrative aspects of Telecommunications. Business and Marketing functions should be expanded within the evolving organization to improve the long-term planning and management of profitability, new services and resources.

- The recent splitting of Planning and Execution has improved the coordination of Network Projects between Switching, Transmission and Outside Plant.

- Human Resources staffing, compensation, budgeting, management and training functions are dispersed across various Sectors.

- Multiple Customer Service responsibilities exist between Operations and Maintenance - O&M - (Customer Connection & Customer Repair) and Commercial (Customer Contact). A single point of accountability would improve the customer relationship and service. These responsibilities should include Marketing and Sales functions to provide the full range of Customer Service capabilities.

- The New Services Department is currently organized within the O&M Sector and independently performs all necessary market, network and operations planning for new services which require unique network capabilities, i.e. Rural Radio, Paging and Cellular Mobile. The long-term accountability of this department is not clear relative to the integration of services into the "main-stream" business processes.

- Outside plant staff support does not exist within the existing O&M Sector structure. A centralized emphasis on outside plant maintenance and operation to provide policies, methods and procedures for Fault Locating Centers and improvements in outside plant maintenance could provide significant improvements in the quality and utilization of this part of the network.

- The Planning & Follow-up responsibilities have been integrated with the Information & Computers Position. This is not a desirable situation as the high-activity tracking, reporting and management responsibilities of Planning & Follow-up dilute the effectiveness, planning and management for computerization.

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-1

95

ARENTO EXISTING ORGANIZATIONAL STRUCTURE

January 1994

- MINISTER OF TRANSPORT, TELECOMMUNICATIONS, MARITIME TRANSPORT & CIVIL AVIATION
  - BOARD OF DIRECTORS
    - CHAIRMAN ARENTO
      - LEGAL ADVISOR
      - Legal Department
      - Security & Civil Defense
      - Central Dept. Chief - Follow-up & Planning
      - Central Dept. Chief - Information & computers
      - VICE CHAIRMAN Finance, Administration & Commercial
        - CDC Finance
          - Gen. Mgr - Inspection
        - CDC Administration
          - Gen. Mgr - Inspection
        - CDC Purchase & Stores
          - Gen. Mgr - Inspection
        - CDC Commercial Affairs & Marketing
          - Gen. Mgr - Inspection
        - Director Human Resources
      - VICE CHAIRMAN* Planning
        - CDC Exchange
        - CDC Local Network
        - CDC Transmission
        - CDC Power/Building
      - VICE CHAIRMAN OM
        - CDC Exchange
        - CDC Transmission
        - CDC International
        - CDC Training
        - CDC New Services
        - CDC Eng/Traffic inspection (Auditing)
        - First Upper Egypt Zones
        - Second Upper Egypt Zones
        - Canal Cities & Sinai Zones
        - East Delta
        - Middle Delta
        - West Delta
        - East Cairo
        - West Cairo
        - Alexandria
      - VICE CHAIRMAN* Execution
        - CDC Exchange
        - CDC Local Network
        - CDC Transmission
        - CDC Power

* The Planning and Execution Sectors have been split but have not yet received full approval from the Minister of Org. & Dev. as of January 1994

Recommendations

- Establish the new "ARENTO Proposed Functional Structure" as shown in Exhibit 5-2, to support the improved management of the Business with the following additions/changes:

  - Centralized training program coordination, including curriculum development program development and facilities management for technical and non-technical disciplines.
  - Establish Marketing and Sales functions and transfer the Customer Service functions that currently exist in the Zone Operations of the O&M sector to Marketing and Sales. This will establish a central point of accountability for Customer Service, revenues generation, product management and account management
  - Outside Plant Operations Staff functions to establish and manage overall Maintenance

- Finalize organizational structure after completion of a detailed assessment of all key business processes. The "Business Process Model Segmentation" diagram shown in Exhibit 5-3 should help identify the processes that should be defined.

61

EXHIBIT 5-2

ARENTO PROPOSED FUNCTIONAL STRUCTURE (1)

January 1994

MINISTER OF TRANSPORT, TELECOMMUNICATIONS, MARITIME TRANSPORT & CIVIL AVIATION

BOARD OF DIRECTORS

CHAIRMAN ARENTO

- Legal Advisor
- Legal Functions
- Inspections (auditing)
- Security & Civil Defense
- Information & Computers

Finance
- Finance/Accounting
- Payroll Accounting
- Purchase & Stores
- Customer Billing
- Cost Accounting
- Treasury/Financier
- Budget Development
- Budget Administration (2)
- Strategic Business Planning

Commercial (Marketing & Service)
- International Sales
- Market Planning
- Pricing
- Promotion/Advertising
- Service Development
- Governmental Affairs
- New Services
- Customer Contact
- Customer Connection
- Facilities Administration

Zones
- First Upper Egypt Zones
- Second Upper Egypt Zones
- Canal Cities & Sinai Zones
- East Delta
- Middle Delta
- West Delta
- East Cairo
- West Cairo
- Alexandria

Planning & Engineering
- Switching *
- Local Network *
- Transmission/Trunk *
- Power/Building *
- Network Architecture *
- Depreciation Studies

Operations (Maintenance & Repair)
- Quality Administration *
- NOC Operations *
- Switching *
- Local Network
- Transmission/Trunk *
- Power/Buildings

Zones
- First Upper Egypt Zones
- Second Upper Egypt Zones
- Canal Cities & Sinai Zones
- East Delta
- Middle Delta
- West Delta
- East Cairo
- West Cairo
- Alexandria

Execution (Construction)
- Switching *
- Local Network *
- Transmission/Trunk *
- Power/Buildings *
- Contract Administration *

Administration (Human Resources)
- Compensation/Benefits
- Training
- Public Affairs
- Staffing

* Includes International Facilities

Note (1): This chart reflects business functions and is not intended to represent a formal proposed "Organizational Structure". Business processes should be identified, redefined, streamlined and simplified before a formal organizational structure can be proposed, i.e. conduct a re-engineering study.

Note (2): Assumes that the Ministry approves required funding levels.

BUSINESS ... S DIAGRAM

A SEQUENCE

PLAN

- Business
- Network
- Market
- Operations

BUILD

- Service Development
- Network Engineering
- Network Construction
- Contract Administration

SELL

- International Sales
- Customer Contact
- Promotion
- Pricing

PROVIDE

- Customer Connection
- Facilities Administration

MAINTAIN

- NOC Operations
- Service Maint./Repair
- Billing
- Network Maint./Repair
- Operator Services

ADMINISTRATION

Government Affairs
Legal
Public Affairs

Staffing
Employee Relations
Training
Quality Administration
Compensation/Benefits

Financial Management
Accounting
Budgeting
Program Management
Auditing
Payroll

Purchase & Stores
Materials Mangmt
Office Services
Property Administration

Information Management
Computers

Overall Implementation Requirements

The overall implementation of this proposed program will require an extremely high level of planning, coordination and management, based on the nature and quantity of proposed changes. Therefore, it is recommended that a Coordinating Committee be formed to perform the program management functions and maintain an effective line of communication with the chairman and Board of Directors on the status and direction, Consideration should be given to the use of the manager's Board to fulfill this important management role.

Major Program Implementation Requirements for Organizational Structures

"Positioned for the Future" 1994-1995	"Implementation Stage" 1995-1996	"Positioned for Excellence" 1996-1998
Process Reassessment Program approved and work initiated.	Process reassessments completed: • Staffing criteria • Organizational Structure • Support System Specs.	New organization structure implemented
Establish single point of Customer Service accountability: • Realign Customer Connection, Customer Repair functions • Establish Marketing and Sales functions		
Centralize staff functions associated with: • Auditing (Inspections) • Training • Contract Admin.		
Establish functions associated with: • Strategic business Planning • Architecture Planning • Depreciation Studies • Economic analysis		

Operational Assessment

Planning and Management

Conclusions

- Neither Performance Objectives nor Strategic Planning exist as the basis for ongoing planning and management of the direction and resources of ARENTO. Individual groups have established de-facto standards for employee evaluations that do not link to broader company-wide objectives.

- The planning within the current operation consists primarily of only "project plans" and an annual budgeted income statement. The only identified planning for company direction and overall resource requirements is through the various Committees (Appendix E) established in conjunction with developing the annual budgeting process.

- The planning coordination and introduction of new technologies and standards into Switching, Transmission and Outside Plant is done independently within those areas, without the benefit of an Architectural Plan for the overall National and International Networks. A "Strategic" Network Plan would ensure that the overall architecture meets critical national and international requirements and capitalizes on evolving technologies in meeting cost and quality performance objectives.

- The Vice Chairmen have broad latitude for objective-setting and prioritization within their Sectors. This "personalization" of the programs within the Sectors leave them vulnerable to changes in Vice-Chairmen assignments and may not provide the best long-term utilization of resources.

- Situations frequently occur where network capacity is not available or is severely mismatched to demand. The availability of demand analysis through an effective market planning process should provide the basis for new network capabilities, timing and capacity.

- The Fault Locating Centers have been established under the Zones without the benefit of an overall plan. Although they support the day-to-day repair process, an improved planning and management of these operations could transition their operation to proactive maintenance capabilities.

- A plan has not been established for the overall incorporation of computerization within the ARENTO processes. Although there are several systems identified for implementation, the introduction of those systems appears to be discretionary for the Sectors. Also, the inter-networking and integration of the systems has not been considered within the current implementation planning.

- The information required for planning within all Sectors has not been formally identified. This will be a critical success factor in establishing effective planning in all areas.

Recommendations

- Establish 5-year goals and objectives as the basis for planning and management of direction and resources.

- Establish and manage 5-year strategic, marketing, network, operations, computerization, human resources and financial plans which are linked through common business goals and objectives.

- Incorporate the use of economic analysis in the evaluation of plan alternatives to establish long-term direction which will provide meet overall financial objectives.

Major Program Implementation Requirements for Planning and Management

"Positioned for the Future" 1994-1995	"Implementation Stage" 1995-1996	"Positioned for Excellence" 1996-1998
Establish Business Goals and objectives	Implement Strategic Planning functions based on Process Studies	Architectural Plans established in accordance with National Telecommunications Plan.
Planners trained on Economic Analysis and Depreciation	All Planner trained on Economic Analysis	
Strategic Planning Process outlined		

Revenue Generation and Financial Management

Conclusions

- Revenues and revenue requirements are forecasted generally through extrapolation of previous years performance and do not utilize adequate research or analysis of the markets or operations.

- The current budgeting processes are very complicated and rely heavily on negotiation to arrive at the final budget level. The Ministries of Finance, Planning and Organization & Administration are involved in the process after Board of Director approval and normally make significant changes to the approved budget levels. For an example, the Ministry of Finance drastically reduces the budget for Projects and Salaries each year with the understanding that ARENTO can spend what they need, provided that the additional expenditures are from internally generated revenues. This process requires funding of critical programs on a cash flow basis and leaves ARENTO very vulnerable to annual changes in revenues or cost increases.

- The Cost of Service/Rate Study (Section V) identified opportunities to increase annual revenues by about 24% though the commitment to construct an additional 1.6 million lines over the next five years. The construction program requirement of LE

4.8 million can be funded from the existing five year budget and will generate a total increase in revenues of LE 2.3 billion over the current 1993-1997 Plan. This program will also eliminate the Waiting List for primary service and will require an aggressive marketing effort for vertical services but will require a commitment to construct an additional 1.6 million new lines by the Ministries and ARENTO.

- The financial assessments completed in the Cost of Service/Rate Study identified that neither Balance Sheets, Income Statements nor Source & Use of Funds details are available for the five-year plans. This information is basic to the support and documentation of a financial plan.

- Currently semi-annual billing is made for exchange and vertical services (in advance), calls in excess of call allowance (in arrears), service activation fees and national toll (in arrears) for residential customers. Although this semi-annual billing is an improvement over the annual billing that was used prior to July, 1993, it does not provide for the desired management of revenues and expenses as would be available with a monthly process.

- Pricing strategies do not exist to support the development or management of tariffs. This leaves ARENTO vulnerable to revenue short-falls and does not provide the long-run marginal cost analysis which is critical to overall Business Strategy development and planning within the Sectors. The Cost of Service/Rate Study tested revenue performance relative to revenue requirements (including ROI of 14%) with Marginal-cost modeling and identified a significant revenue short-fall in 1993, 1994 and 1995. Reference Section VI of that study for details regarding the revenue assessment.

- According to the Cost of Service/Rate Case Study, significant opportunities may exist for increased revenue generation through the elimination of "free-call" allowances and the movement to a usage sensitive pricing environment.

Recommendations

- Commit the resources required to construct 1.6 million net new lines over the next five years to eliminate the Waiting List for primary service and generate LE 2.3 billion in new revenues.

- Aggressively market and provision high-margin vertical services

- Establish a plan to integrate customer billings into a single, monthly billing for Local, National and International Services.

- Establish pricing strategies using marginal-cost assessments and incorporate those strategies into the overall strategic planning processes of ARENTO. A goal should be established and evaluated to eliminate "free-calling" and migrate to usage sensitive pricing over the next five years.

- Annual balance sheets, income statements and source/use of funds statements should be established in conjunction with the development of the Five-Year Plans.

Major Program Implementation Requirements - Revenue Generation and Financial Management

"Positioned for the Future" 1994-1995	"Implementation Stage" 1995-1996	"Positioned for Excellence" 1996-1998
Ministry approval of strategic plan process	Network and operations plans approved to eliminate waiting list	Waiting list eliminated
Income for 1993-1997 re-cast with hard currency pricing and foreign interest	Source and use of funds details, balance sheets and income statements included in the 5-year plans	Marginal cost concepts implemented for new services assessment and product management
Billing strategy and policy approved for single monthly bill to all customers by 1998.	billing plan finalized Quarterly billing implemented to reduce free calls with tracking of customer response	
Pricing strategy and program approved with goal of full usage sensitive pricing.		

Employee Staffing and Development

Conclusions

- The current total staffing level of approximately 56,000 employees is too high given the 2.0 million lines in service (35 lines/employee). This conclusion is based on comparison to the CANTV Operation in Venezuela where about 24,400 employees are employed to manage 1.9 million lines in service (78 lines/employee). If the CANTV productivity experience is applied to ARENTO, the total ARENTO employee count would be about 25,600, or a reduction of over 31,000 employees. Establishing the final staffing objective requires additional analysis to determine the appropriate long-term objective for staffing which balances political, financial, social and operational implications.

- The Ministry of Finance routinely reduces the Annual Salaries Budget significantly below the level approved by the ARENTO Board of Directors that is required to support competitive salaries, including raises and incentives. However, ARENTO has the option to spend to higher levels than that approved, as long as the increased spending is funded through self-generated funds. This creates a "cash management" mode of operation which is not an effective means of managing overall resources.

- The overwhelming consensus among all interviewed was that low salaries are the most significant issue facing management in motivating, retaining and attracting employees. The opinions of the interviewees and comparisons with the Suez Canal

Authority bears out that ARENTO salaries for the engineering positions are from 2 to 4 times lower than in the other government sectors for comparable work.

- The engineering and computer programming positions were identified throughout the interviews as being the most critical and those where the turn-over is the highest. Significant difficulties have been encountered in attracting qualified candidates for replacements, primarily due to low wages.

- Career opportunities for engineers and computer programmers are not available within pure technical areas of responsibility. The only opportunities for advancement are to supervisory positions. The Suez Canal Authority has a two level progression for engineering personnel. This career limitation in technical disciplines is also considered to be an important consideration in the retention of those key personnel.

- The estimated 4000 personnel that are trained each year within the ARENTO Training Centers, would indicate that the programs are reaching a reasonable quantity of personnel.

- The decision has been made to begin systems-level training on the AT&T 5ESS within the Training Facility and arrangements have been made for installation of an AT&T 5ESS Training Switch. Similar plans should be made for training on the Siemens EWSD and CIT Alcatel Systems.

- The training programs seem to be well designed in that they were prepared with input from external sources such as the Saudi Arabian Operation and meet the standards of the International Telecommunications Union. Also, both pre and post-testing is done with the students, along with surveys of training quality.

- The processes for budgeting salaries and administering employee compensation are very complex. Employee evaluations are very subjective and are not based on specific goals and objectives. It was found through the interviews that a manager spends up to 40% of his time on employee related matters. This underscores the complexity of the processes.

- The availability of non-technical training programs (supervisory and management development) is very limited and there is no emphasis on recruiting graduates with general Business or Marketing Degrees. A broad-based business capability will be required as ARENTO transitions to a more autonomous, competitive operation.

- The Training Center is beginning to take on other responsibilities such as the screening of new hires. For example, they recently did language screening for a large quantity of candidates for operator positions. This added responsibility could dilute the effectiveness of the Training Center in taking skilled trainers away from their primary responsibility.

- The National Telecommunications Institute (NTI) is a very strong resource for technical and management instruction. They have 34 courses and five departments covering Transmission, Switching, Electronics, Computers/Systems and Network/Project Management. They offer a two year post-graduate certificate which can be applied to a Masters Program. Approximately 500 Engineers per year attend NTI from ARENTO. NTI is generally expected to train top ARENTO Engineers prior to promotion. The capabilities of this Institute should be considered within the overall training plans of ARENTO.

Recommendations

- Establish five-year staffing objectives and programs to satisfy key business processes. Coordinate the staffing plan with the social fund to assist displaced employees.

- Revise Ministerial Decree 200, covering employee matters:

  - Install basic salary ranges that are competitive with other government sectors in Egypt
  - Allow for promotion based on demonstrated and tested efficiency and aptitude rather than time on the job
  - Update processes based on exit interviews with personnel that leave the company
  - Provide continuing annual salary adjustments based on cost of living increases
  - Establish a simple but equitable process for overall compensation based on personnel evaluations compared to quantifiable performance objectives
  - Establish a minimum 3 step progression within the technical engineering and computer programming disciplines
  - Give the supervisors the flexibility to release non-productive employees after 18 continuous months of weak performance

- Re-engineer the processes used in determining the budgeted level of salaries to link it to an overall staffing and compensation plan and provide annual budgetary commitments that support the requirements.

- Establish training programs for general business management, marketing, sales, economics, finance and project/program management:

  - Provide either basic appreciation or working knowledge instruction depending on the job
  - All employees of Degree 3 and higher should be required to attend
  - Consider ITU resources to initiate training in areas where no skill-sets exist within ARENTO
  - Expand the application of NTI in providing the higher level instruction

- Implement in-house training for the AT&T 5ESS, Siemens EWSD and CIT Alcatel E10B switch for engineering, maintenance and execution personnel.

- Establish a policy requiring that all labor services contracts be given to only those contractors that are on an Approved Contractor List based on the demonstrated cost and quality of the contractor.

- A process should be developed to assist in the maintenance and management of contractors
- All contract administration should be handled by the Execution Sector to effectively evaluate cost and quality in comparison to ARENTO resources

Major Program Implementation Requirements for Employee Staffing and Development

"Positioned for the Future" 1994-1995	"Implementation Stage" 1995-1996	"Positioned for Excellence" 1996-1998
Complete Process Reassessments	Ministerial Decree 200 Revised and coordinated with Legal for approval by BOD and Ministries	Staffing level objectives by departments based on process assessments
Policy approved for contractor selection based on cost, quality and liability insurance	Performance objectives established and communicated for incentives and bonuses	

5.2 INTRODUCTION

5.2.1 General

Consistent with the work statement for the study involving Policy Reform and Institutional Assessment, K&M was directed to focus its technical and management expertise in the following areas:

- Regulatory and Legal framework, including a detailed assessment of relevant laws, policies, procedures and regulations which if changed would improve the efficiency and attract increased investment (Section 4).

- Organizational Structure and Operations, including the assessment of all areas that if changed could improve efficiency and effectiveness, and retain productive employees (Section 5).

- Profitability and Self-Financing to encourage participation by the private sector in financing future expansions (Section 6).

The Work Plan for Policy Reform and Institutional Development Assessment in Appendix F provides detailed information regarding objectives, deliverables and timelines. The remainder of this section of the report will address the findings, conclusions and recommendations associated with the Organizational Structure and Operations.

5.2.2 Task Overview

5.2.2.1 Task Goals and Objectives

The assessment of ARENTO's Organizational Structure and Operations will identify opportunities for change that enhance efficiency, flexibility, overall system reliability, cost savings and increased revenue generation. In accomplishing this overall goal, the assessment will address the following broad objectives:

- Integrate the following completed studies that were performed, as they relate to the purpose of this task. The intent is not to duplicate these studies but instead, to resolve inconsistencies, strengthen conclusions and establish a comprehensive set of recommendations to accomplish the stated objectives.

- Operations and Maintenance Study (O&M Study) dated August 1993, performed by Teleconsult, Inc and Harza Engineering, Inc.;

- ARENTO Cost of Service/Rate Study (K&M Study) dated September 1993, performed by K&M Engineering and Consulting Corporation;

- Determine ARENTO's human resource requirements and how those requirements can be most effectively achieved through the attraction, development, retention and management of proactive employees. This will include staffing levels, personnel policies, compensation levels for employees, promotion practices, training, compensation policies and productivity, as they relate to the current and evolving telecommunications environment within Egypt and ARENTO.

- Identify ways for improving the personnel management process
- Identify specific organizational and operational actions which are required to effectively support the legal and regulatory reform and self-financing recommendations established in sections 4 and 6 of this report.

5.2.2.2 Task Scope

The scope of the assessment will encompass the overall organizational and operational structure of the Telecommunications Sector, including any Ministries which either directly or indirectly effect the Telecommunications Sector. The following aspects of ARENTO Operations have been given particular attention:

- Previous studies covering service improvement, tariff development, operations and maintenance;
- Personnel policies and compensation;
- Organizational development plans and objectives;
- Management development programs and objectives;
- Skill development training programs and facilities;
- Ability to attract and retain employees.

5.2.3 Task Study Methodology and Deliverables

The following are the major segments of the study methodology for completion of this assessment:

- Evaluate and validate findings, conclusions and recommendations of the previous studies through follow-up interviews with key ARENTO personnel. The Interview Plan in Appendix G "Personnel Interviewed" provides the names and titles of the personnel interviewed.
- Identified new areas of opportunity for improvement and merged with previous recommendations where possible with the intent to develop a program which provides the most effective, long-run direction for the ARENTO operation.
- Establish external benchmarks for policies and performance through contacts outside of ARENTO. Interviews were conducted with the Vice Director-Transit Department of the Suez Canal Authority, the Head-Regional Office for the ARAB States of the ITU in Cairo and the Director-Exchange Carrier Service Agency in the United States.

- Evaluate implementation requirements based on the current processes, traditions and systems and recommend a practical implementation direction. The recommended direction addresses the major activities, resources and timelines which will provide for a smooth, manageable migration to the proposed Organization and Operation environment.

5.3 LEGAL AND REGULATORY STRUCTURES

5.3.1 Egyptian Laws and Regulations Impacting Organization and Operation of ARENTO

5.3.1.1 Public Law 153

The Arab Republic of Egypt National Telecommunications Organization (ARENTO) was established under the Minister of Telecommunications with passage of Law 153 in 1980, during the Presidency of Anwar El Sadat (see Appendix A "Public Law No. 153"). Exclusive authority was granted to ARENTO for the establishment and operation of the telecommunications network on the national level and connecting the national network with the international networks within the general political and economic National Plan. The authority was to carry out this responsibility with a Board of Directors, Managers Board and Chairman.

Although the Chairman and Board of Directors oversees the general management of ARENTO operations, their authority has been delegated through the issuance of Ministerial Decrees to various other Ministries in the GOE which has eroded and reduced the autonomy that was envisioned under Public Law 153. It is not clear exactly what caused these changes from the original spirit in the Law; however, the Ministerial controls that have been placed on ARENTO's financial and operational flexibility are viewed as major constraints as ARENTO begins to compete for outside investments in the evolving market economy of Egypt.

5.3.1.2 Ministerial Decree 200 - Employee Matters

Ministerial Decree 200 (Appendix D "The Workers System Panel of the Authority") was issued by the Minister of Telecommunications after approval by the Board of Directors in 1982. It establishes the policies regarding Employee Staffing, Compensation, Promotion, Vacations, Social/Health Care and Performance Evaluations. The Decree grants primary authority over these policies to the Central Department of Organization and Administration.

5.3.1.3 Ministerial Decree 108 - Finance

Ministerial Decree 108 (Appendix C "Financial Policies") was issued by the Minister of Telecommunications after approval by the Board of Directors in 1992. It establishes the financial policies regarding accounting, utilization, management and expenditure of funds. The Decree grants primary authority over these policies to the Ministry of Finance.

5.3.2 Other Studies

The Legal and Regulatory Reform Assessments covered in Section 4 of this report will provide a more detailed assessment of overall ministerial implications, along with direction regarding the reforms required in this area.

5.3.3 Linkages to ARENTO Processes

The various linkages between the Ministries and the ARENTO processes are covered in Exhibit 5-4; as shown below:

Exhibit 5-4
Ministerial Linkages to ARENTO Processes

PROCESS	MINISTRY	PURPOSE
Budgeting (Revenues and Expenses)	Ministry of Finance	- Initial budget levels - Approve ongoing changes
Organization and Job Description	Central Department for Organization and Administration	Approval of organizational structure, Job design and Job Descriptions
Staffing	Central Department for Organization and Administration	Handicapped staffing levels
Compensation	Central department for Organization and Administration	Compensation policies, Wage and Salary level approval
Projects-(Capital Spending)	Ministry of Planning	Approval of planned program expenditures
Loans	Ministry of finance	Approval of loans
Administration	MTCMT	Approval of employee and financial policies

5.4 FINDINGS AND CONCLUSIONS

5.4.1 Organizational Structure Assessment

The "ARENTO Existing Organizational Structure" in Exhibit 5-1 on page 5-4 was used as the basis for conducting the organizational assessments. The current process associated with the development or changes to the organizational structure is outlined in Appendix I "Organizational Change Process". All formal organizational changes must have prior approval from the Central Department for Organization and Administration before making any changes to the organizational structure.

5.4.1.1 Responsibilities

The "ARENTO Job Descriptions" contained in Appendix J have been summarized to outline the general accountabilities of Sectors and Departments reporting directly to the Chairman as found in Exhibit 5-5 "Sector Accountabilities".

5.4.1.2 Conclusions

- The current organization and operation is structured to address the technical aspects of network provisioning and maintenance. Marketing, Sales, Human Resources, Treasury and Ministerial Affairs functions are embedded within several different positions within the existing organization. A more structured organizational focus on these areas will be required to effectively and efficiently establish and manage programs.

- The existing organization and job descriptions involve significant fragmentation and application in employee staffing, training and compensation responsibilities.

- The accountabilities within the Finance and Administration Sector are "diluted" with unrelated responsibilities for Stores and Warehouse. This responsibility is Operational in nature and should be included in those overall responsibilities.

- The organizational structure has recently been "informally" modified to create individual Planning and Execution Sectors. The restructuring is considered informal until the changes are approved by the Central Department for Organization and Administration.

- Depreciation studies based upon emerging technologies should be developed.

- Inspections (auditing)are de-centralized throughout the organization and have no overall focus, objectivity or independence.

Exhibit 5-5
Sector Accountabilities

DEPARTMENT/ SECTOR	RESPONSIBILITIES
Finance and Administration	- Store Keeping (warehousing), inventory management and the purchase of capital items - Implementation of Personnel Policies, regulations and maintains employee records - Liaison between ARENTO and Ministries for conformance with government policies on employee matters - Social care of employees, i.e. health, culture, sports and general appearance of workers - Customer Billing and Accounting - Financial Planning and Budgeting
Planning and Execution	**Although Planning and Execution has been split into two Sectors, the change is informal and final divisions of responsibilities and staffing have not been finalized. Therefore the following is based on the responsibilities as formally defined in the position descriptions.** - Engineering, design and installation of switching, transmission and outside plant networks - Establishment of projects (capital) funding requirements and coordination for budgeting - Tracking and reporting project execution - Coordinate project design and planning across all sectors - Track and manage expenditures according to approved budgets
Operations & Maintenance	- Installation and maintenance of telephone service to the customer - Technical inspection and reporting of engineering, traffic offices and maintenance work - Establishment and management of programs to resolve problem areas in work performance - Engineering, installation, maintenance and daily operations of international traffic, including telegraph, int'l microwave and satellite communications - Securing contracts with government organizations and the public sector - Liaison with law system for investigation of complaints and law suits and support to legal affairs - Operation and maintenance of traffic (operator) offices - Planning, engineering, maintenance and daily operation of new services, i.e. cellular mobile, paging and rural radio. This includes the coordination of new services with the Chairman and Board of Directors as required - Design, preparation and implementation of all orientation, entry-level and in-service training programs for ARENTO personnel - Operate and manage the "Telecommunications Training & Research Institute" in Cairo and the eight regional training centers

Human Resources	- Organizational structure planning and defining staffing levels, responsibilities and salary levels within the organization. - Overall productivity improvement through process analysis - Focal point lines of communication with authorities to avoid duplication - Communication of all organizational decisions and standards for implementation - Establish, implement, manage and administer Job Classifications based on directives of Central Organization for Organization and Administration - Policies and regulations for allowances, bonuses and compensation - Follow-up on work procedure standards with the Zones and Departments - Coordinate personnel transfers between jobs - Staffing level studies, analysis and requirements - Personnel training policy development and implementation, including research of foreign training centers/programs. - Policy/standards for bonuses and appointments
Information & Computers	**This is a new position that does not have a formal job description as yet. The following are observations from interviews:** - Identify and coordinate opportunities and requirements for computerization with the Chairman and sectors - Coordinate computerization programs with sectors and departments - Identify, plan and manage budgets associated with systems deployment - Implementation of new systems, including training, populating of information and ongoing support - Establishment and maintenance of central data bases
Planning & Follow-up	- Finalizes the budget for approval, including project costing and financial decisions by high committees - Coordinating budget approval with the Chairman and Board of Directors - Tracks budget performance and administers ongoing changes to the budget - Administers public and government complaints about telecommunications service - Liaison (Communications) with Ministries - Planning and allocating foreign currency and spare parts - Approval of personnel assignments to operating sectors throughout Egypt - Distribution of bonus and over-time allowances **Functions are currently merged with the Information and Computers Sector under one Central Department Chief**
Security and Civil Defense	Conserving the security of ARENTO according to the issued directives
Law	- Coordinate investigations of major claims - Provide legal opinions and prepare contract drafts - Issuing decisions and directives in conjunction with the Ministry of Justice - Compile and manage information required for legal administration - Coordinate external lawyer selection as required - Coordinate major legal claims with Chairman of the Board - Maintain reporting of financial or administrative wrong-doing and provide recommendations for resolution

5.4.2 Operational Assessments

5.4.2.1 General Budgeting Process

ARENTO establishes one consolidated budget for the entire company, with the exception of employee bonuses. Budgeted raises and bonuses are the only specific allocations for management by the Sectors. The allocations are distributed monthly to each Vice Chairman for administration down the lines of organization. The lack of strategic, marketing and operational plans necessitates the utilization of Committees to evaluate and develop the annual budgets. The current budgeting process consists of the following four phases, each of which has a specific Committee Structure as outlined in Appendix E "Administrative Decree No.704 - Concerning Budget Committees":

- Phase 1 Income Estimating(Revenues)
- Phase 2 Wages
- Phase 3 Running Expenses
- Phase 4 Construction & Loans (Projects)

Each Phase is reviewed and approved by the Chairman prior to consolidation into a single budget for Board of Directors review and approval. Upon Board of Directors approval, the budget is forwarded to the Ministry of Planning for review and approval of the planned projects and the Ministry of Finance for overall budget assessment relative to the overall government allocations.

The Ministry of Finance normally adjusts the ARENTO budget, after Board of Directors review and approval, with the following changes:

- Expenditures for the transfer of funds are added for the Ministry of Transport and Ministry of Finance. The amounts are usually negotiated with the Ministry of Finance before finalizing. The funding levels for these two areas have typically been LE. 300 million for Transportation and LE. 100 million for Finance. However, for the 1994/1995 budget the Ministry of Finance proposed a LE 200 million funding level, a 100% increase over the previous period. The figure was negotiated down to LE. 100 million. However, the Ministry of Finance indicated to ARENTO they expect the amount to be raised to LE 200 million next year in line with the 5-year commitment of LE. 1 Billion to the Ministry of Finance by the Ministry of Transportation, Telecommunication, Maritime and Civil Air. During 1993/1994, the Metro required an additional unbudgeted LE. 100 million from ARENTO which caused them to shut down projects for the last few months of the fiscal year. The authority for the Ministry of Finance to make these budgetary adjustments is a major problem in establishing sound, prudent financial management that will be required of a successful business in a market economy.

- The overall budget level is always reduced substantially by the Ministry of Finance, from that proposed and approved by the ARENTO Board of Directors, usually for projects and salaries. This change is made with the understanding that expenditures over the budgeted amounts can be made, as long as the funds are self-generated. This form of budgeting forces ARENTO into a cash-management situation for the management of annual programs and is probably the major reason for having a single budget and control. Also the funding process leaves major programs vulnerable to fluctuations in income and expense.

The past five year history of the Project Budgeted Levels and Actual Expenditures in Exhibit 5-6 "Project Budgeting" and the history of the Bonus Program is in Exhibit 5-7 "Bonus Program". That information underscores a major management problem facing ARENTO in managing the levels of variances expected in the current budgeting process.

It is not clear how or why the reductions are made to the ARENTO budget nor is it clear that the Ministry of Finance and the Ministry of Planning have the authority to change Board of Director approved spending levels.

As can be seen from the Sector Responsibilities outlined in Exhibit 5-5 "Sector Accountabilities", the Budget development and management responsibilities are generally spread across the Financial & Administration and Planning & Follow-up Sector. Finance & Administration seems to be generally responsible for coordinating budget development while Planning & Follow-up seems to be primarily responsible for management. However, since neither the budget levels nor management responsibilities are assigned specifically to the Sectors, they must maintain a constant communication with Planning & Follow-up to determine whether funds are available to continue their programs.

Exhibit 5-6
PROJECTS BUDGETING

YEAR		ESTIMATED	ACTUAL	CHANGE	% CHANGE
87/88	Self Financed	64,620	315,075	250,455	388%
	Local Loans				
	Foreign Loans	51,725	214,536	162,811	315%
TOTAL		**116,345**	**529,611**	**413,266**	**355%**
88/89	Self Financed	60,870	316,383	255,513	420%
	Local Loans	35,700	31,840	(3,860)	-11%
	Foreign Loans	36,310	198,262	161,952	446%
TOTAL		**132,880**	**546,485**	**413,605**	**311%**
89/90	Self Financed	147,370	331,906	184,536	125%
	Local Loans				
	Foreign Loans	54,980	132,793	77,813	142%
TOTAL		**202,350**	**464,699**	**262,349**	**130%**
90/91	Self Financed	130,920	369,941	239,021	183%
	Local Loans				
	Foreign Loans	93,500	82,792	(10,708)	-11%
TOTAL		**224,420**	**452,733**	**228,313**	**102%**
91/92	Self Financed	131,722	636,497	504,775	383%
	Local Loans				
	Foreign Loans	93,050	343,589	250,539	269%
TOTAL		**224,772**	**980,086**	**755,314**	**336%**
92/93	Self Financed	295,000	729,517	434,517	147%
	Local Loans				
	Foreign Loans	10,000	201,684	191,684	1917%
TOTAL		**305,000**	**931,201**	**626,201**	**205%**
93/94	Self Financed	260,000			
	Local Loans				
	Foreign Loans	11,885			
TOTAL		**271,885**			

Exhibit 5-7
BONUS PROGRAM

YEAR	ARENTO APPROVAL BY B. OF D.	MINISTRY APPROVAL	ACTUAL EXPENDITURES
88/89	19,614	11,501	13,459
89/90	18,664	12,919	15,261
90/91	20,322	12,955	15,294
91/92	16,002	13,778	16,167
92/93	25,775	16,078	18,992
93/94	48,347	22,400	
94/95	48,207		

5.4.2.1.1 Budgeting Process for Employee Salaries

The process of budgeting for employee staffing and compensation is outlined in Exhibit 5-8 "Employee Budgeting Process" and reflects the complexities in the review and approvals for this budget. Nine individual organizational entities within ARENTO and the Ministries are involved in the development, review and approval of the final budget. As mentioned in the previous section, review by the Ministry of Finance always results in reductions to the levels that had been previously approved by the Board of Directors. In recent years, directives have been issued by the Ministry of Telecommunication that the overall budget shall not exceed the level of the previous year.

The budgets for employee raises and incentives are allocated monthly and are the only budgets that are assigned to the Vice-Chairman for management and administration. Generally the budgets are re-allocated to the various departments within each Sector for final administration and allocation to the employees.

5.4.2.1.2 Source of Funds

An examination of Exhibit 5-6 "Project Budgeting" indicates that ARENTO receives and spends substantially more funds from Foreign Loans than is originally approved. However, even with this increase, the trend for the total source of funds for projects indicate improvements in self-financing. Nearly 80% of the Projects Budget is financed through internally generated funds each year with a corresponding less dependency on foreign loans, as a percent of total program funds requirements. It should also be noted that, except for 1988/1989, no local loans have been used for any of the funding. Section 6 of this report will address the Self-financing issue in more detail and provide greater insight into the migration of ARENTO to a position of self-sufficiency.

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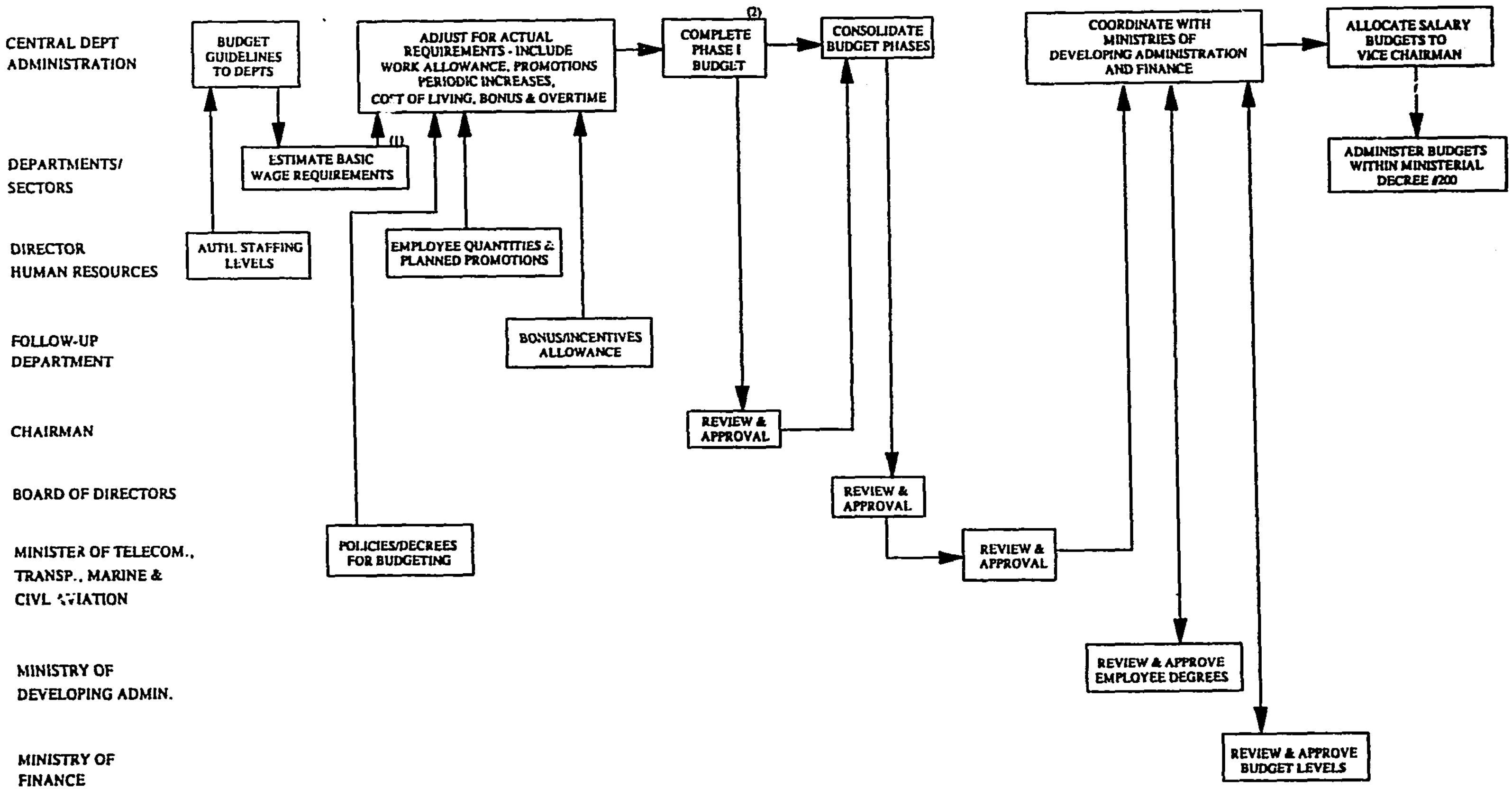
EXHIBIT 5-8

EMPLOYEE BUDGETING PROCESS



NOTES:
(1) DEPARTMENTS SUBMIT ONLY BASIC SALARY REQUIREMENTS FOR AUTHORIZED PERSONNEL
(2) PHASE 1 COVERS ONLY EMPLOYEES SALARIES. PHASES 2-4 COVER THE REMAINING BUDGET REQUIREMENTS

5.4.2.1.3 Conclusions

The overall budgeting process requires reform to allow for the improved planning within all key areas of ARENTO and the appropriate commitments of funds to cover those programs for the planning period. The latitude of the Ministry to arbitrarily reduce ARENTO budgets must be changed to allow improved fiscal management.

Duplication and fragmentation exists in budget development, coordination and management.

No planning exists within Marketing, Operations, Information/Planning and Human Resources to enable the establishment and funding of programs. Current budgeting is based on projects or incremental needs.

5.4.2.2 Staffing

5.4.2.2.1 Staffing Levels and Process

The authorized staffing levels are communicated each year by the Director General of Organization and Administration for budget development. The "Number of Employees" as shown in Exhibit 5-9 shows the actual staffing levels by Job Classification for each year since 1987, including those that are loaned or on leave. That exhibit also reflects the total wage expenditures and the average of those wages across the total employee base.

The ARENTO employees that wish to leave the company for another job have the advantage of not having to quit ARENTO. Instead, they can take an extended leave from the company and have the option to return if desired. The employee continues to be carried on the ARENTO roster but does not receive any pay until he returns. The category "Less Loaned or on Leave" represents that quantity of employees that are still on the employment records of ARENTO not actually on the payroll.

The Central Department Chief of Human Resources is responsible for managing the overall productivity standards and staffing authorizations within ARENTO. The "Employees of ARENTO as of December 31, 1993" as shown in Exhibit 5-10, provides detailed information on the existing quantities of employees by Department, Zone and Sector as well as a projection of quantities needed in each of those areas. The Human Resources Sector has responsibility for process improvements but K&M is not aware of any specific process assessments that were completed to establish more practical staffing levels. The overall re-assessment of the main processes used within ARENTO is a critical step in determining the actual requirement based on the needs of the company.

Exhibit 5-9

NUMBER OF EMPLOYEES

YEAR / CLASSIFICATION	87/88	88/89	89/90	90/91	91/92	92/93	93/94
CHAIRMAN	1	1	1	1	1	1	1
VICE CHAIRMAN	3	3	3	3	3	3	3
CENTRAL DEPARTMENT CHIEF	17	17	17	17	17	17	17
GENERAL MANAGER (w/Exp. Allow.)	64	66	66	66	66	66	66
GENERAL MANAGER (w/o Exp. Allow)	5	5	5	5	5	5	5
1st DEGREE	1,529	1,761	2,113	2,113	2,123	2,283	2,298
2nd DEGREE	7,858	7,958	9,278	9,278	9,752	9,929	9,985
3rd DEGREE	17,902	17,909	17,883	17,842	17,818	17,760	17,712
4th DEGREE	15,195	15,903	16,066	16,149	15,758	15,629	15,635
5th DEGREE	12,057	12,163	12,189	12,210	12,125	12,080	12,002
6th DEGREE	6,397	6,466	6,464	6,480	6,081	5,521	5,434
TOTAL of EMPLOYEES	**61,028**	**62,252**	**64,085**	**64,164**	**63,749**	**63,294**	**63,158**
LESS loaned or on leave	7,037	6,747	9,490	9,745	11,044	10,399	
NET TOTAL	**53,991**	**55,505**	**54,595**	**54,419**	**52,705**	**52,895**	
NET WAGES (in LE)	112,661,894	125,010,925	140,367,284	157,553,808	169,535,960	201,414,970	
AVERAGE WAGES (per year in LE)	2,086.68	2,252.25	2,571.06	2,895.20	3,216.70	3,807.83	
AVERAGE WAGES (per month in LE)	173.89	187.69	214.26	241.27	268.06	317.32	
% CHANGE		8%	14%	13%	11%	18%	

COMPOUNDED ANNUAL GROWTH RATE - WAGES 13%

Exhibit 5-10
EMPLOYEES OF ARENTO as of 12/31/93

DEPARTMENT	TOTAL EXISTING NUMBERS	TOTAL ADDITIONAL NEEDED
Headquarters	2,041	0
International	3,585	45
Projects (Planning & Execution)	3,024	50
Telecommunications Systems	1,697	25
Central Workshops	1,062	0
Stores & Purchases	655	15
Training Center	297	0
C.D. & 1st Zone of Cairo West	3,788	0
2nd Zone Cairo West	1,490	20
3rd Zone Cairo West	1,029	15
4th Zone Cairo West	956	10
5th Zone Cairo West	585	15
C.D. & 1st Zone Cairo East	1,416	15
2nd Zone Cairo East	1,542	10
3rd Zone Cairo East	1,011	5
4th Zone Cairo East	838	15
C.D. of Suez Canal Area & Ismailia	1,109	15
Red Sea Zone	421	10
North Sinai Zone	388	10
South Sinai Zone	251	10
Port Said Zone	649	10
Suez Zone	495	10
C.D. Alexandria & 1st Zone	3,322	10
2nd Zone Alex.	709	10
3rd Zone Alex	768	10
4th Zone Alex	274	10
C.D. Delta West & Behera 1st & 2nd Zones	1,547	15
C.D. Middle Delta & Tanta Zones	2,601	10
Kafr El Sheikh Zone	1,257	10
Shebien Elkoum Zone	1,106	10
Kaloiba Zone	1,200	5
C.D. Delta East & Zagazig Zone	2,447	15
Mansoura Zone	2,430	10
Damietta Zone	655	5
C.D. of 1st Upper Egypt & Beni Suef Zones	1,151	15
Fayoum Zone	929	10
ElMinia Zone	1,556	10
C.D. of 2nd Upper Egypt & Sohag Zone	1,656	20
Assiut Zone	1,479	15
New Valley Zone	455	15
Quena Zone	1,598	15
Aswan Zone	951	0
TOTAL	**56,420**	**525**

The staffing levels within ARENTO appear to be excessive and aimed to achieve GOE social objectives. In order to determine the magnitude of the staffing issue, benchmarks were established as "yard-sticks" to enable comparisons of the ARENTO staffing and begin to develop some projections as to the levels that are required. The most credible benchmark that has been established for staffing level comparisons has been with the Venezuela CANTV Operation which was successfully privatized over the last two years. They currently have about 1.9 million access lines in service and a total of 24,400 employees for an average of 78 lines per employee. The ARENTO operation has approximately 2.0 million access lines in service with a total employee count of approximately 56,000 per Exhibit 5-10 "Employees of ARENTO as of 12/31/93" for an average of 35 lines per employee. The assumption is that the productivity is improved as the average lines per employee is increased. If the CANTV productivity factor of 78 lines per employee is applied to the ARENTO operation, the results would indicate a total employee requirement of only 25,600 or a reduction of over 31,000 employees. Although there are many ways to calculate and analyze productivity and staffing, this macro estimate provides a broad-gauge assessment of the magnitude of the over staffing within ARENTO.

A major issue is the social and political impact of dramatic down-sizing on displaced employees. These people have had the security of a job and in many cases will require financial support and re-training to gain re-employment. The Social Fund was created in the Government of Egypt in 1991 as a quick acting mechanism to provide support to people affected by these types of down-sizing programs. The "Foreign Economic Trends and Their Implications for the United States" in Appendix H provides a brief overview of the Social Fund. However, the coordination of the overall staffing program with this Fund will be very important to provide the displaced employees with every opportunity to maintain reasonable life styles during the transition.

Although the total quantities of employees are higher than should be necessary, ARENTO has been experiencing considerable difficulty in attracting and retaining adequate staffing in key positions. The information in Exhibit 5-11 "Engineers Refusing Employment" represents those engineers that have passed the entrance test but declined employment or refused the work. The reason provided by those interviewed was that the refusals were due to wages.

The primary focus of employee recruitment has been for engineering graduates. The "Engineer" has a much broader connotation in ARENTO than just the higher level technical capabilities as is generally used in fully developed market economies. Although the term "Professional Engineer" is earned through rigorous testing and certification in the U.S., it still implies generally a technical capability or proficiency. However, in ARENTO, Engineer (not Professional Engineer) is a professional title which is utilized with all graduate engineers and has a status much like the term Professor or Doctor. The expectation in the past is that the Engineer will satisfy the continuity requirements of the organization in assuming greater responsibilities for general management. However, the Engineering curriculum in the colleges and company training programs does not provide the depth of understanding of the financial, marketing, economic and general management proficiencies that are required of key non-technical positions in a competitive business.

Exhibit 5-11
Engineers Passed Test but Refused to Employ

SPECIALTY	NUMBER	YEAR
Civil	6	1993
Communication	6	1993
Civil	1	1992
Communication	4	1992

Engineers have been Assigned but Refused the Work

SPECIALTY	NUMBER	YEAR
Communication	4	1993
Power	2	1993
Civil	1	1993
Communication	2	1992

An emphasis must be placed on recruiting and attracting those college graduates that have the solid understanding of business, marketing and finance to provide effective direction setting and decision-making in those areas of the business that do not receive the needed attention today.

5.4.2.2.2 Conclusions

The staffing levels of ARENTO are too high based on the initial bench marking with the Venezuela Operation. However, the specific long-term goal for total employees based on the re-assessment of business processes to determine the levels required to perform the work and balance reductions with financial, operational and social considerations will require significantly more study.

The long-term program for staff reduction will impact many thousands of employees and will require assistance from the Government of Egypt to support the displaced employees. The Social Fund appears to be the mechanism for this assistance.

Recruitment and development of business and marketing graduates will be required to meet the overall business as well as technical needs of the company.

5.4.2.3 Employee Compensation

5.4.2.3.1 Compensation Overview

Employee compensation was the number one issue among all ARENTO employees interviewed on this task assessment. The overwhelming consensus was that the engineers and computer programmers were the most critical positions that are impacting the company's performance and that the ARENTO salaries are three to four times lower than comparable jobs in other government sectors. That ratio of

ARENTO salaries to other government sector salaries has a high degree of credibility as it was independently expressed by many of the people interviewed and substantiated by discussions with the Suez Canal Authority management.

The structure of Job Classifications and Salary in Exhibit 5-12 "Salary Segment Responsibilities", when compared to comparable jobs in the Suez Canal Authority in Exhibit 5-13 "Suez Canal Authority Employment System" reveals that:

- The basic salary range for an engineer in the Suez Authority is LE 78-100, or about 100% greater per month than comparable jobs in ARENTO.

- A two level progression is available for the engineer, i.e. engineer and 1st engineer in the Suez Authority structure.

  The engineering and computer programming jobs were determined to be the most critical positions within ARENTO and those where the turn-over is the greatest. In the New Services Department alone, all 15 of the male engineers went to Saudi-Arabia in the same month, where they would make LE 7000-8000 per month instead of the LE 400 per month with ARENTO.

  The general consensus of those interviewed was that low wages are the central issue which is virtually the exclusive cause of:

- The loss of the best employees to the private sector, generally without enough warning to plan for the continuation of critical work and;
- A base of remaining personnel that are less qualified and motivated;
- lower performance expectations of the employees by upper management, resulting in a general deterioration of the quality and cost throughout ARENTO; and
- A general inability to attract high quality personnel.

5.4.2.3.2 Conclusions

The employee compensation issues within ARENTO are extremely complex and reflect general attitudes, cultures and traditions which have a much broader impact than just compensation. The major areas of concern that will have to be addressed in resolving this and other major business issues involve:

- The lack of specific goals and objectives as the basis for employee evaluations
- Constrained budgeting for salaries
- The lack of effective career opportunities within critical disciplines
- Complex compensation administration processes
- The lack of effective planning within all disciplines requiring Human Resources
- Inappropriate interference and constraints by Ministries
- A culture that has reduced ARENTO to just another Government Agency instead of a business

Exhibit 5-12
SALARY SEGMENT RESPONSIBILITIES

SALARY SEGMENT	BASIC MONTHLY SALARY	EDUCATION	FUNCTION	POSITION
CHAIRMAN	1100	COLLEGE		
VICE CHAIRMAN (Sector Management)	1000	COLLEGE	Manages an overall sector	
CENTRAL DEPARTMENT CHIEF (Dept. Management)	900	COLLEGE	Manages more than one department or Zone (5th level)	
GENERAL MANAGER (Dept. Management)	137 - 192	COLLEGE	Manages a Department or Zone (4th level)	Zone Manager
1st DEGREE (Group Management)	107 - 174	COLLEGE	Administrator or Manager (3rd level)	Zone Manager Exchange Manager
2nd DEGREE (Section Management)	80 - 159	COLLEGE	Manager (2nd level)	District Manager
3rd DEGREE (Unit Management)	58 - 134	COLLEGE HIGH SCHOOL	Engineer or Programmer (1st level)	Inside Plnt. Eng. Outside Plnt. Eng. Exch. or Switch Supervisor
4th DEGREE	45 - 101	SECONDARY GR. 9-11	Technician	Switch, Trans. or OSP Maintenance
5th DEGREE	40 - 77	PREPARATORY GR. 6-8	Skilled Laborer	Cable Splicer OSP. Maint.
6th DEGREE	38 - 62	PRIMARY OR NO ED. GR. 1-5	Laborer	Janitor Messenger

76

Exhibit 5-13
SUEZ CANAL AUTHORITY EMPLOYMENT SYSTEM

Degree	Monthly Salary - LE		Allowance	Main Jobs	Engineers	Accountants	Lawyers	Physicians	Druggists	Guides	Clerks	Skilled Laborers	Laborers
	Start	End											
0	295	509	15	Director									
00	267	475	14	Deputy Dir.				Chief Superior Physician	Chief Superior Druggist	Chief Superior Guide			
000	246.5	415.5	13	Vice Dir.				Chief 1st Physician	Chief 1st Druggist	Chief 1st Guide			
1	219	387	12		Section Chief	Section Chief	Section Chief	Chief Physician	Chief Druggist	Chief Guide			
2	197	351	11		Vice Section	Vice Section	Vice Section	Assistant Chief Physician	Assistant Chief Druggist	Superior Guide	Chief 1st Clerk		
3	180	320	10		Working Director	Superior Accountant	Superior Lawyer	Superior Physician	Superior Druggist	Main Guide	Chief Clerk		
4	143	269	9		Assistant W.D.	Main Accountant	Main Lawyer	Main Physician	Main Druggist	Guide	Chief Office Clerk		
5	126	238	8		1st Engineer	1st Accountant	1st Lawyer	1st Physician	1st Druggist		Superior Clerk	Superior Laborer	
6	99	204	7		Engineer	Accountant	Lawyer	Physician	Druggist		Main Clerk	Main Laborer	Main Laborers Chief
7	82	172	6								1st Clerk	1st Laborer	1st Laborers Chief
8	68	143	5								Clerk	2nd Laborer	Laborers Chief
9	56	120	4									3rd Laborer	1st Laborer
10	49	97	3										Laborer

5.4.2.4 Employee Performance Evaluation Process

The process for evaluating employee performance is also covered in Ministerial Decree Number 200. The "Performance Evaluation" Form shown in Exhibit 5-14 is the main component of the employee evaluation process and requires completion each year. Although the process is formally completed once a year, the instruction requires frequent monitoring of employee performance and notations in the employee's file as to excellent or weak performance.

The Table of Penalties During the Year in Exhibit 5-14 "Performance Evaluation" is intended to provide a continuing record of problems encountered during the year and should provide opportunities for discussion of problem areas through the year. In establishing the numerical "Adequacy Levels", the supervisor must grade the employee in the first (top) three categories on the Process Evaluation Form. If the grade in those three top categories is less than 55% the performance is considered as weak while an excellent rating requires at least 95% in those categories. Although provisions exist for the release of weak performing employees, the reality is that the Weak performers are tolerated due in-large to the low wages paid and undesirable social consequences of releasing large quantities of employees. The personal preparedness and capabilities and behavior sections of the performance evaluation are given brief, cursory consideration and do not really impact the final judgment as to overall performance.

5.4.2.4.1 Conclusions

Some observations regarding the employee performance evaluation process and priorities, as determined by the categories in Exhibit 5-14 "Performance Evaluation" are as follows:

- No specific quantifiable objectives are established for the employee. Only subjective, qualitative assessments are made.

- The low end of consideration in evaluating performance (Personal Preparedness and Behavior Sections) includes respect for deadlines, decision-making and problem solving and staff development. These may be some of the most significant areas of importance in the evolving business.

- Conflicts exist between the priorities used in evaluations, i.e. the conclusion about working well and without constant direction (in the top three categories) may well be as a result of proficient problem solving, decision-making and leadership (middle category).

Exhibit 5-14
PERFORMANCE EVALUATION

ITEMS AND GRADING	GUIDANCES	EVALUATION		
		Direct Head	Local Manager	Chief
Job Obligations & Performances 45 points	15 points for conducting the work very well and according to the schedule - decreasing to 0 in case of very bad performance			
	15 points for conducting the work well without constant directions, and is decreased down to 0 in case of constant and permanent directions.			
	15 points for the capability of understanding the work of chief and his subordinates and the departments related to him, decreased to 0 if he is not totally capable.			
Personal Preparedness and Capabilities 25 points	15 points for capability of responsibility, decisiveness of problems, making suitable decisions, leadership, supervision & preparation of the next staff. This is decreased according to the capability to 0 in case of complete failure.			
	10 points for making use of theoretical & practical training, superior capability to understand new methods for creating & evoluting. Able to understand the work of his administration. The points are decreased to 0 in case of complete failure.			
Behavior 30 points	15 points for good relations with chiefs, subordinates, colleges and rest of personnel, careful for the good procedure of the work. Decreased to 0 in case of bad relations with everybody.			
	5 points for respecting the deadlines. Decreased to 0 in case of not being responsible enough.			
	5 points for complete response to what is useful to the job includes time given and effort. Decreased to 0 in case of total non-responsiveness.			
	5 points for taking care of the balance between the circumstances of the job and the individual circumstances, especially in using the rights to holidays. Decreased to 0 whenever the employee supersedes his own interests.			

EXHIBIT 5-14 (Page 2 of 2)
ANNUAL PERFORMANCE REPORT

Department:	
Name:	Date of birth:
Grade:	Date of Employment:
Job:	Education Certificate:

TABLE OF PENALTIES DURING THE YEAR
From 1/1/19__ to 31/12/19__

Penalty & Date	Reason	Suspension or Trial, Date & reason

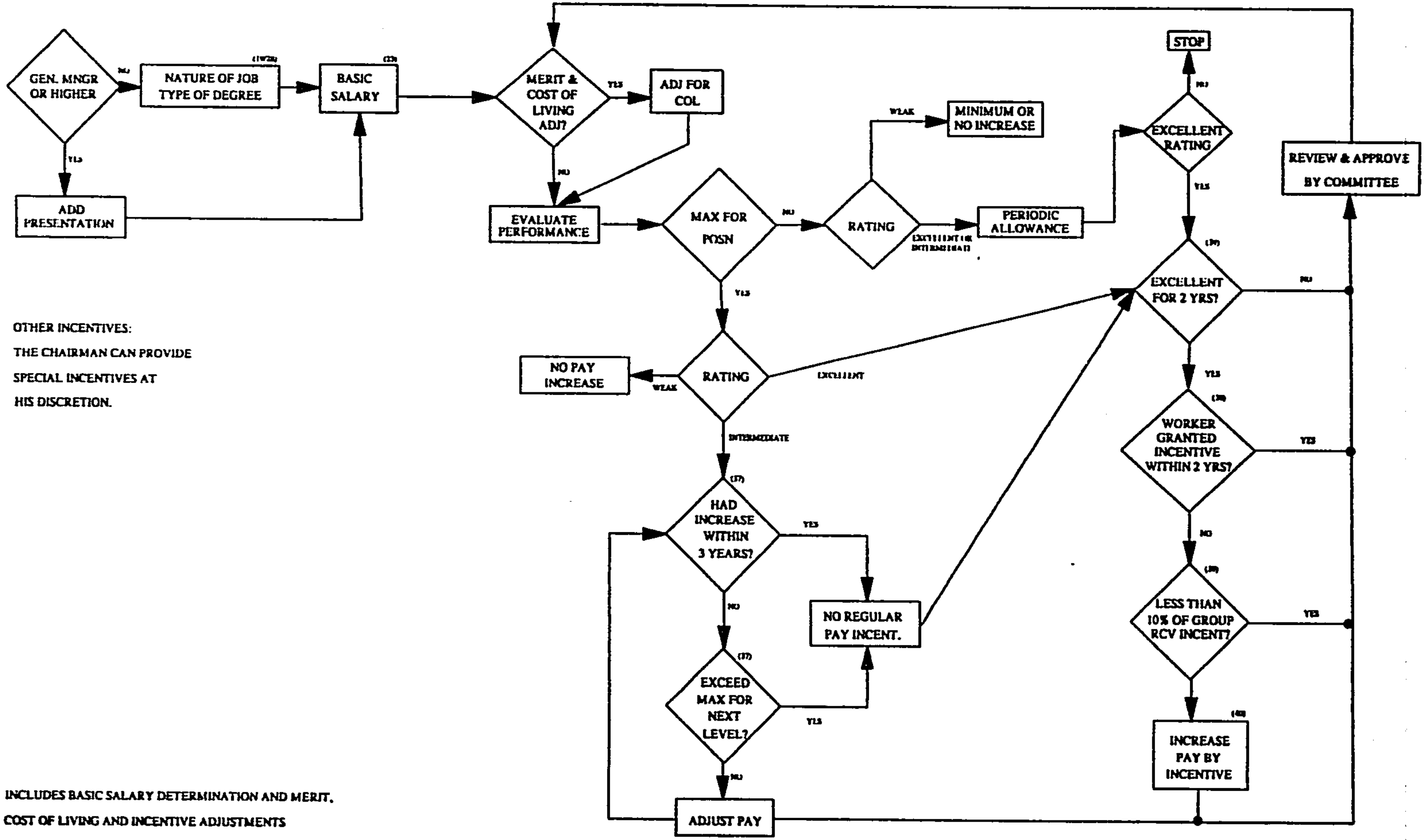
5.4.2.5 Employee Compensation Process

The compensation methods and procedures for ARENTO employees are outlined in Ministerial Decree Number 200, which was established in 1982 (See Appendix D). The "Employee Compensation Process" found in Exhibit 5-15 provides a pictorial view of the various elements of that process and how they are intended to flow and sequence with one another. The process begins with the initial establishment of basic salary and progresses on to include regular annual increases and incentive compensation.

New employees must begin at the lowest salary in the lowest (entry level) position for the position regardless of qualifications or prior experience. For an example, a college graduate engineer must begin as Degree 3 at the lowest basic salary regardless of whether the individual had prior experience.

EXHIBIT 5-15

EMPLOYEE COMPENSATION PROCESS *



OTHER INCENTIVES:
THE CHAIRMAN CAN PROVIDE
SPECIAL INCENTIVES AT
HIS DISCRETION.

* INCLUDES BASIC SALARY DETERMINATION AND MERIT, COST OF LIVING AND INCENTIVE ADJUSTMENTS

hibit 5-16

SCHEDULE OF DEGREES AND SALARIES
Per Ministerial Decree No. 200

Salary Segments or Levels	BASIC SALARY (as of June 30, 1987)		PRESENTATION (LE. Yearly) (Expense Allowance)	PERIODICAL ALLOWANCE (LE per Month) (Merit Interest)	PERCENTAGE FOR PROMOTION**	MINIMUM PERIOD FOR PROMOTION
Chairman	2,820	yearly	2,000			
Vice Chairman	2,670	yearly	1,500		100%	
CDC	1,860 - 2,556 155 - 213	yearly monthly	1,000	6.25	100%	1 year
General Manager	1,644 - 2,304 137 - 192	yearly monthly	5,000	6.00	100%	1 year
1st Degree	1,284 - 2,088 107 - 174	yearly monthly	300*	5.00	100%	1 year
2nd Degree	960 - 1,908 80 - 159	yearly monthly	240*	5.00	50%	6 years
3rd Degree	696 - 1,608 58 -134	yearly monthly		4.00	40%	8 years
4th Degree	540-1,212 45 - 101	yearly monthly		3.00	20%	5 years
5th Degree	480 - 924 40 - 77	yearly monthly		2.00	10%	5 years
6th Degree	450 - 744 37.5 - 62	yearly monthly		1.50		5 years

* Applied when acting for General Manager

** Percentages pertain to the total placements that can be made outside of the established priority list for personnel ready for promotion. By passed employees have legal recourse against ARENTO.

132

The "Schedule of Degrees and Salaries per Ministerial Decree No. 200" contained in Exhibit 5-16 is a direct translation from Ministerial Decree 200, which was enacted during 1982. Before addressing the employee compensation process or making any assessments or conclusions about the process or results, it is extremely important to have a common understanding of all elements of the process and how they are utilized in the compensation process. Therefore, the following is a detailed description of each element of the "Schedule of Degrees and Salaries" as found in Exhibit 5-16:

Column 1 Exhibit 5-16 - Salary Segments:

The salary segments refer to those major divisions in the segmentation of salary grades. The ranking of in this column progresses from the hierarchy of Chairman as the highest paid position to the sixth degree being the lowest. A description of the various functions and/or positions that relate to each of these salary segments is shown in Exhibit 5-16 "Schedule of Degrees and Salaries".

Column 2 Exhibit 5-16 - Basic Salary:

The salaries shown in this column are the <u>basic salaries</u> for each salary segment in yearly and monthly ranges. This basic salary was established June 30, 1987 as the basis for all ongoing computations of raises and incentives. In 1987, a special, six-year cost of living program was instituted by the Government of Egypt to increase the basic salaries of government workers by 110%. The cost of living program is outlined in Exhibit 5-17 "Additional Allowance for Cost of Living Program". The annual percentage increases were applied against the <u>basic salary</u> for that segment, not what the employee was currently earning. Therefore, there was no compounding effect in the annual increases. Also, the cost of living allowances did not increase the basic salary used for ongoing computation of raises or bonuses. The original basic salary was still used as the basis for those calculations. The Basic Salary is computed using the "Risk Allowance" factors in Exhibit 5-18 to adjust salary for the type of job. If the job is riskier, i.e. construction, heavy machinery, etc. the basic salary would be higher.

Column 3 Exhibit 5-16 - Presentation:

The presentation allowance is an annual adjustment to income of the higher level positions, in consideration of their inherently increased expense requirements for special functions, gifts, clothing, etc. just as a result of their position within the company and government.

Column 4 Exhibit 5-16 - Periodical Allowance:

The amounts shown for each Salary Segment are the maximum monthly merit increase that can be provided to the employees. It is based on the employee performance evaluation as outlined earlier in this Section. The employee will receive a monthly increase proportionate to the scoring on the performance evaluation, i.e. if the employee scores 50% on his rating of performance and he is in the 3rd degree segment, he will receive an increase of LE. 2 for the month. The budget for raises are administered with the departments on a monthly basis. However, K&M was advised that there is very little variation in this budget throughout the year.

Column 5 Exhibit 5-16 - Promotion from Selection List:

As employees meet the minimum period for promotion for each salary segment as shown in Column 6, they are added to the bottom of a list of promotion candidates for each segment. Their addition to the list is purely a time-in-grade situation and is not influenced by performance. When vacancies occur in the next higher position, the people on the top of the list are considered and usually selected to fill the position. As people are selected for promotion, the remaining employees move up on the list and the process continues. However, the individuals that are responsible for filling the vacancies have an option to go outside of the established list of people that are ready for promotion and select another individual, based on special attributes. That option is restricted to the percentages shown in Column 5. For example, the 100% shown for Vice-Chairman, Central Department Chief, General Manager and 1st Degree means that the filling of vacancies in those segments can be made with people outside of the promotional listing in 100% of the cases. On the other hand, for 6th Degree vacancies, only 10% of the selections can be with people that are not on the promotional listing. The ARENTO Employee that is on the top of the promotional listing but is bypassed by another employee has legal recourse with ARENTO and can take the Authority to court. For this reason, K&M was advised that deviations from the promotional listings are very much the exception.

Column 6 Exhibit 5-16 - Minimum Period for Promotion:

This column represents the minimum time frames that employees must have in each salary segment before they can be added to the promotional listing. Outside of exceptional situations where the supervisors decide to exercise their option to select an employee for promotion that is not on the promotional listing, the only other way to get promoted is to meet this minimum "time-in-grade" requirement.

The "Employee Compensation Process" flow shown in Exhibit 5-15 was constructed through a detailed review of the Ministerial Decree Number 200 covering employee matters. The process provides the logical flow that was established to administer the previously covered "Schedule of Degrees and Salaries" in Exhibit 5-16. However, it has the added capability for supervisors and the Chairman to apply special bonuses or incentives in the case of regular Excellent work by employees. The Committee that is shown to review and approve the recommendations for salary increase is jointly handled between the Central Department Chief-Administration and the Director General of Organization and Administration.

An observation that can be made of the overall processes for performance evaluation, salary budgeting, administration and bonuses is the overall complexity. Extensive work was required by K & M to obtain a clear understanding of the various parts of the overall process and it is doubtful that most supervisors understand all of the flows, nuances and options that should be considered in acquiring compensation for their employees. One interview with a Zone Manager revealed that he devoted 40% of his time to employee compensation matters.

Exhibit 5-17
ADDITIONAL ALLOWANCE FOR COST OF LIVING PROGRAM

YEAR	PERCENT INCREASE TO BASE SALARY
	COST OF LIVING ADJUSTMENT
87/88	20%
88/89	15%
89/90	15%
90/91	15%
91/92	15%
92/93	20%
93/94	10%
TOTAL	**110%**

Exhibit 5-18
RISK ALLOWANCE
Administrative Decree No. 2090 dated 3/2/1982
Issued by ARENTO Board of Directors

1. 40% of lowest basic salary for Category A
2. 30% of lowest basic salary for Category B
3. 20% of lowest basic salary for Category C
4. 15% of lowest basic salary for Category D

CATEGORY A: 40%

1. Engineers, technicians & technical laborers working in:
   - constructions and maintenance of outside plants,
   - radio & terminal stations,
   - inside & outside equipment rooms,
   - workshops for the maintenance of telex, telegraph & switch boards.
2. Employees of Engineering traffic and testing of meters inside rooms
3. Technicians working in international exchanges
4. Drivers of cranes, trucks, excavators & heavy vehicles
5. Employees working in electronic directory
6. Workers of telephone supervision

CATEGORY B: 30%

1. Engineers and technicians for installation & maintenance of manual switchboards
2. Employees working in telephone & telegraph offices
3. Technicians for telephone sets, frames & cabinets
4. Drivers of cars & motorcycles and workers in transportation
5. Employees working in the computer center
6. Security employees

CATEGORY C: 20%

1. Technical employees in stores & guards
2. Workers for broadcasting, complaining directory & information boards
3. Workers for telegraph services
4. Workers for registration in computer center
5. General managers of zones
6. Engineers & technicians working in the frequency spectrum, planning of projects & buildings & traffic design
7. Supervisory technical jobs
8. Traffic controllers
9. Elevator laborers
10. Draftsmen
11. Microfilm workers
12. Typists

CATEGORY D: 15%

1. Administrative personnel
2. Cleaning personnel

5.4.2.5.1 Conclusions

- Promotional opportunities for the Degree 6 through 2 Salary Segments are based on a predetermined time frame for each segment which is arbitrary and does not consider the potential, qualifications or motivation of individuals within those segments.

- No opportunities exist for developing careers within the disciplines such as Engineering unless the individual takes on supervisory responsibilities.

- Career development and Continuity planning as outlined in Public Law No. 5 (Appendix B) are reserved for the positions of General Manager or higher.

- Although the positions of General Manager and higher can be filled with any qualified candidate, a policy of choosing from the next level down has been strictly followed.

5.4.2.6. Training and Development

The training facilities of ARENTO currently include The Central Training Facility in Cairo and eight regional centers. Approximately 4000 personnel are trained each year between the Regional and Central Training Centers. The 8 regional Training Centers train about 1000 new hires in basic subject matter and the one Central Training Facility in Cairo trains about 3000 personnel in a wide range of basic technical and manage subjects.

All advanced technical training on systems and facilities is accomplished through on the job training (OJT). Although there are video taped training programs covering outside plant (local network) highlighting problem areas and maintenance techniques no other structure is available to assist the site supervisors to assist them in the OJT process. The Chairman has taken the video tapes to the field with him and Zone Management personnel have objected to the high-level emphasis. However, the Training Center in Cairo is planning to begin training ARENTO personnel within the Center on the AT&T 5ESS switching system.

Training on new systems is currently handled by the manufacturer, the quantities trained are limited to engineering and maintenance personnel and do not include the execution employees. This presents a significant problem since the execution engineers are responsible for contractor inspection and acceptance testing. Arrangements have been made with AT&T to provide a "Training Switch" during 1994. This will improve the timing and cost of training personnel and enable the execution personnel to be trained with the engineering and maintenance forces. This concept should be expanded to include the Siemens and CIT Alcatel Systems.

The technical training programs appear to be well designed in that they were prepared with the assistance of input from external areas such as the Saudi Arabian and the International Telecommunications Union. Both pre and post-testing is done with the students, along with surveys of training quality.

The availability of non-technical training programs is very limited and are generally reserved for 3rd Degree or higher employees that are slated for promotion. A broader range of management courses are required to support the non-technical needs of the company in areas of strategic planning, marketing, finance and overall program management. Developing a solid business background in key management positions will be critical to the ongoing management of the business.

The Training Center is beginning to take on other responsibilities such as the screening of potential hires for some jobs. As an example, they recently did language screening for a large quantity of candidates for operator positions. This added responsibility could dilute the effectiveness of the training center in taking skilled trainers away from their primary responsibility.

The National Telecommunications Institute (NTI) is another very effective training resource available to ARENTO. They have 34 courses and five departments covering transmission, switching, electronics, computers/systems and network/project management and offer training to all government agencies. They offer a two year post-graduate certificate which can be applied to a Masters Program. Approximately 500 Engineers per year attend NTI from ARENTO. They are generally expected to train top engineers prior to promotion.

5.4.2.6.1 Conclusions

- Training programs must be expanded to include a broader selection of non-technical courses such as business, marketing and finance subjects. Additionally, courses should be added for developing supervisory and management skills.

- The installation of training systems in the ARENTO operation will be required to manage the cost and quality of applied training.

5.4.2.7 Strategic Business Planning

Planning in ARENTO is generally conducted only for the technical network requirements associated with the Five-Year "Projects" plan (Capital Spending). The findings and conclusions of network planning contained in the analysis of network Section V of the Cost of Service/Rate Study were substantiated through the recent interviews. One additional area that requires overall priority attention in the network planning area is the incorporation of economic analysis concepts in the evaluation of alternatives and decision-making as to the final direction. The identified need for reliable, current information on traffic, markets and functionality is a major consideration in improving the planning process.

Network planning is relying on traffic data collection from the switches and field assessment by Engineering forces to forecast the priorities and capacities required of the marketplace in determining where, how and when network investments should occur. The New Services Department within the OM Sector is beginning to use customer surveys to gain direct input on service quality and propensity to buy new types of services.

The company has no established market and finance oriented goals and objectives and consequently no strategies. The marketing, operations and human resources areas do not have formalized plans to direct their efforts over the next five years. Budgeting decisions are made by committees with very little analytical structure to determining the right level and type of resources to support the business.

5.4.2.7.1 Conclusions

- ARENTO must establish long-range strategic goals and objectives which address the Market, Financial and Operational aspects of the business.

- The departments operate on a short-term basis without knowing the long-term ramifications of those decisions. A structured planning effort is required in each of the major areas within the company.

5.4.2.8 Network Management

5.4.2.8.1 General

Network Management is generally considered to be a proactive function to eliminate degradations or service interruptions to the customer. The early identification of problem areas should allow the service provider to plan and manage the resources required to maintain telephone plant and service levels, thereby making most efficient use of those resources. The concept includes the improved productivity of maintenance and repair personnel through the centralization of monitoring, diagnosis and field support. Effective network management is contingent on the availability of timely, credible information, along with the capabilities to establish priorities for resources required to take corrective action.

5.4.2.8.2 Switching

As pointed out in the O&M Report, the COM Centers were established under this broad definition to manage the performance of the 1AESS Switches from central locations. The intent was to minimize the quantities and qualifications of on-site maintenance personnel. However, AT&T has continued to provide contract technical support to these centers since their implementation and the quantities of switch maintenance personnel have not been reduced.

The O&M Report also identified a problem of Transmission Network faults which have been evidenced by Network Management Program are in place within the ARENTO Operation for Switching, as demonstrated by the high service levels of the existing systems.

5.4.2.8.3 Transmission

The Cost of Service/Rate Case Study identified significant route congestion (blockage) problems. Since that study was completed, action has been taken by ARENTO to begin correcting the situation with key managers meeting monthly to review the reports and take corrective action. The results of the Trunk Congestion Program are in Appendix N "Trunk Congestion Report, December 1993" and show significant improvement in a number of routes. However, further attention is required in a number of locations. These meetings are very positive steps in gaining control of the many issues that can affect trunk performance.

5.4.2.8.4 Outside Plant

The outside plant network does not have the overall management capabilities or planning as was established for switching systems. The Fault Location Centers had been established to perform the same proactive function for outside plant facilities as the COM Centers were doing for switching. However, the centers have not been successful in establishing the preventative maintenance programs for outside plant and are used instead for assisting the field forces with repair of reported faults. A common practice of the field forces is to switch the customer service from a defective cable pair to a good one, instead of taking the time to repair the original facility. Although this will expedite service restoration it proliferates the deterioration of the outside plant network and will dramatically shorten its economic life.

5.4.2.8.5 Conclusions

- The outside plant network requires immediate attention to establish the policies, methods and procedures to upgrade design and maintenance. The same level of care should be afforded that part of the network as is the case with Switching.

- The new NOC Center may not have the benefit of integrating its capabilities within the overall planning and maintenance processes of the overall network. This could provide for the ineffective use of the capabilities within the overall maintenance and operation structure.

- The monthly meetings to address traffic trunk congestion issues should continue with emphasis on actions and tracking to continue to improve the performance of the transmission network.

5.4.2.9 Computerization and Information Management

5.4.2.9.1 General

The motivation to increase the levels of mechanization and computer based management processes is strong, in light of the establishment of the Information and Computer Department, reporting directly to the Chairman. The appropriate incorporation of mechanization into the key business processes will be a critical component in achieving competitive levels of productivity and quality. However, as K&M visited the various offices it was apparent that the level of computerization is still very limited. It was clear though, that the ARENTO employees understand the need to mechanize and seem to be anxious to acquire systems. However, even with the verbal support provided to K&M by many ARENTO employees, the Information and Computer Department has experienced significant problems with personnel when planning has been initiated for new systems. A general fear of the systems replacing jobs is evident and the lack of computer proficiency have been major barriers to proceeding with system deployments. However, even with these problems, ARENTO has been able to move ahead with planning and activities associated with mechanization as shown below.

5.4.2.9.2 Existing Data Bases and Systems

- Data/Information data bases have been established for such information as the Five-Year Plan, Yearly Projects, Equipment in Service, Waiting Lists, Employees, Billings for Local/International/Mobile, Source/Use Funds Reports, Budgets, Monthly Financial Reports, Balance Sheets and Project variance reports.

- Human Resources and Payroll System is currently being deployed. The data base is being populated with personnel in Degree 3 on up positions. All reports are requested directly from the Central Department Chief-Information and Computers.

- Inventories/Stores and Warehouse System is operational. All inventory records have been entered, along with account payable applications.

- Accounts Payable/General Ledger System is integrated with asset management.

- The Billing System has been deployed in six exchanges with completion of Cairo scheduled for the end of July, 1994. This is a critical step in achieving the monthly billing identified in the previous K&M Study recommendations. However even with this new billing system there are significant deficiencies to accommodate the K&M study recommendations.

- Although an earlier attempt was made to implement a Project Management system within Execution, it was not utilized effectively as the personnel did not appreciate the importance of managing milestones.

- There are currently no plans or resources to establish:

  - A focus on the management of information as a corporate resource. Departments within ARENTO have demonstrated significant reluctance to utilize or share data bases and are duplicating common data elements between individual systems.

- The inter networking of support systems such as Fault Location, Cable Administration and Billing or LANs. Neither the funds, resources or priorities have been established.

- Systems to support the planning, engineering, deployment and administration of network assets.

- A system to manage and administer the contractors used for network engineering and construction.

5.4.2.9.3 Conclusions

- A major problem within the Information and Computers Department is the inability to retain skilled programmers. Over the past year 6 out of the 15 programmers left to go to other companies for larger salaries. The Central Department Chief compared the average LE. 250/month salary of the programmers within ARENTO with at least LE. 1000/month in the private sector within Egypt. The programmers in off-shore locations such as Saudi-Arabia are receiving LE. 6000-7000/month.

- An overall program for computerization within the core processes of ARENTO is required. The program requires Chairman endorsement and support with specific measures established.

- Informative planning, i.e. information requirements to support on-going operations and strategic business objectives does not exist. There is no coordinated effort to identify and manage "information" as a corporate resource.

f2

5.5 RECOMMENDATIONS

5.5.1 Background

Two previous studies were completed over the past year, in conjunction with Project 263-0177, which pertain to assessments of revenues, cost and service quality positioning of ARENTO. The recommendations of those studies will be integrated with those of the Organizational Structure and Operations Assessment. During the integration of recommendations, it was found that in some cases the conclusions and recommendations of this current assessment of Organizational Structure and Operations supplemented, expanded or modified the recommendations of the previous studies. In those cases, the resulting language has been highlighted in ***Bold italicized letters.*** This process of consolidation, expansion and clarification should improve the packaging of common or associated information and allow the reader to understand where changes were made to the previous report recommendations.

The two previous studies were commissioned by the United States Agency for International Development (USAID) with the following objectives:

5.5.1.1 ARENTO Cost of Service/Rate Study completed September, 1993

This assessment was completed by K&M Engineering and Consulting Corporation of Washington, DC. to provide the basis for both designing and implementing an effective strategy for future telecommunications pricing in Egypt.

5.5.1.2 Operations Maintenance Study completed August, 1993

This assessment was completed jointly between Teleconsult, Inc., Washington, DC. and Harza Engineering. The purpose was to evaluate ARENTO's current operations and maintenance practices and procedures as they pertain to AID-financed equipment and materials and recommend improvements, where necessary.

5.5.2 Cost of Service/Rate Study

5.5.2.1 Recast Financial Statements

5.5.2.1.1 Recast Income Statements

ARENTO should recast income statements for the five-year period of 1993-1997 to reflect both the changes in price of Hard Currency and increases in foreign interest expense accounts, using the World Bank projected exchange rate of 6.2%.

The Changes in Prices of Hard Currency Account should be increased by LE 55 million and Foreign Interest Expense increased by LE 54 million.

5.5.2.1.2 Recast Balance Sheet

The unrecorded increase in Foreign Debt should be included as an adjustment to the balance sheet for long-run marginal cost estimates. No impact will be incurred on the Income Statement.

Begin recording currency exchange rate increases as an operating expense and change against Operating Revenues on a going forward basis.

5.5.2.1.3 Annual Balance Sheets and Source and Use of Funds Statements

Annual source and use of funds assessments and projected annual balance sheets should be included within future five-year plans.

5.5.2.1.4 Establish a Treasury Department

The position of Treasurer should be established within the Finance Sector.

5.5.2.2 Billing and Collection

5.5.2.2.1 Migrate to Monthly Billing

Migrate from semi-annual to monthly billing cycles for all customers to improve cash management, distribute charges to the customers and minimize the size of the billings to the customers.

- Implement with a phased approach involving an interim quarterly cycle to improve cash flow management.
- Use the policies currently in effect for International Telecommunications Services.
- The added costs associated with more frequent billings should be addressed within the overall budgeting or rate-making processes.
- Since Local Access is currently billed in advance on a bi-annual basis, consideration should be made to retaining that arrangement to improve ARENTO's real revenue generation capability and may even require future offsets.
- Establish a specific plan and commitment for the full deployment of the Billing System to all customers within the next five years.

5.5.2.2.2 Design, Buy or Build State of the Art Billing System

Establish common billing standards and procedures for all customers. Use a single integrated billing and collection system which accounts for all Local Access, International and usage charges for a single subscriber.

144

5.5.2.2.3 Shorten Time Lags

Place a high priority on shortening time lags between the billing cut-off periods and the date bills are available for distribution.

5.5.2.2.4 Develop and Implement an Effective Account Treatment/Collection Process

Develop a standard Account Treatment Policy and apply consistently across all subscribers, including government accounts. This should include improved control through the dispersion of billing, cash collection, bank reconciliation, cash management and account adjustments/write-offs to separate individuals, from the one person as is currently the practice.

5.5.2.3 Service Improvements

5.5.2.3.1 Establish a Strategic Business Planning Function

Establish a Strategic Planning Function within the Finance Sector to assist the Chairman and Board of Directors in establishing, tracking and managing the overall business direction of ARENTO.

- *Coordinate the development and management of 5-year Business Goals and Objectives based on competitive bench marking, Egyptian Economic Development, Market Trends, new Technologies and Political constraints.*

- *Coordinate inter-Sector planning, in line with goals and objectives.*

- *Maintain regular tracking and reporting of progress in meeting long-term goals*

5.5.2.3.2 Improve Coordination of Network Planning

Improve the effectiveness of Network Planning in formulating long-term, economically viable plans for the development and expansion of the overall telecommunications network in line with business and customer requirements.

- Incorporate Outside Plant Planning and longer-term planning for switch expansions

- Improve the quality and quantity of traffic data available to planners. This should include traffic data from every electronic switch, Trunk Overflow Reports and O&M data on switch and trunk performance.

- Eliminate the switch line size policy which limits current switch sizes to a maximum of 60,000 lines per system. Allow the systems to expand to their designed capacity within overall economic constraints.

15

- *Utilize economic analysis in the evaluation and decision-making process associated with Network Planning. This will require the retraining of all Planning Engineers as well as the upper management of ARENTO, along with the establishment of computer based tools.*

- *Establish an Architectural Planning Function within the Planning Sector to plan and manage the incorporation of new technologies and technical standards across the Switching, Transmission and Outside Plant Planning disciplines.*

- *Establish process linkages between Network Planning and the new Marketing and Sales Sector and the O&M Sector.*

- *Establish a Computer Aided Design (CAD) System which has interactive graphics capabilities to automate the drafting, asset management and administration for both Outside Plant and Switch Engineering*

- *Establish a policy which mandates that Planning Engineers consider Fiber Optics or Copper based loop electronics alternatives before installing any further Copper Feeder Facilities for local distribution. Copper Feeder alternatives should be penalized in the economic analysis based on maintenance and customer service constraints.*

5.5.2.3.3 Establish a Network Operating Plan

Establish a Network Operating Plan which provides a five-year view of Operations resources and priorities required to meet the Strategic Goals and Objectives.

- *Integrate all systems into a unified national network management architecture.*

- *Identify specific Human Resource requirements, i.e. skill-sets, quantities of employees and associated costs.*

- *Identify the critical support systems required to maintain quality and productivity.*

- *Identify tools, test equipment, vehicles, etc. which must be included in the annual budgets.*

5.5.2.3.4 Establish a Trunk Administration Function and Conduct a Call Completion Study

- *Validate trunk utilization data*

- *Establish specific actions for resolution*

- *Incorporate findings into ongoing Planning for Network and Operations*

5.5.2.3.5 Revise the current policy covering the use of outside Contractors to allow for the formulation of an approved Contractor Listing based on demonstrated cost and quality

- *Allow ARENTO Execution employees to compete for construction work based on the same criteria as is used for the outside Contractors.*

- *Establish a policy requiring that all contractors assume full liability for their work and show proof of reasonable level of liability insurance before working any jobs for ARENTO.*

- *Establish a Contractor Committee to be chaired by the Central Department Chief of Contract Administration and comprised of the Exchange, Transmission, Local Network and Power Department Chiefs within the Execution Sector to oversee the Approved Contractor Listing.*

- *Establish plans to implement a Contract Administration System that will interface directly with the Engineering CAD System to automate much of the contractor selection process.*

- *Use competitive bid or quote on major projects to reduce the costs of contracted work. Reduce or possibly eliminate time and expense contracting.*

5.5.2.4 Rate and Tariff Design

5.5.2.4.1 Establish a Commercial Sector

Establish a Commercial Sector reporting to the Chairman as a single point of accountability for revenues planning and generation.

- ***Accountabilities should include Market Planning, Pricing, Promotion, Forecasting, coordination with Network Planning and Strategic Planning Departments.***

5.5.2.4.2 Generate Additional Annual Revenues

Generate an additional LE 7.5 million in annual revenues through the marketing high margin services such as Expanded Custom Calling Features, Business Line Hunting, Call Forwarding, Call Waiting and Dual Tone-MF signaling to increase revenues per line, reduce network costs and improve the quality of customer service.

- Replace the X-bar Switches earlier than currently planned and replace with state-of-the art systems that offer broader customer service and maintenance capabilities.

- The equipment repair center at Bab-El-Louk should be re-assessed if the 1AESS Switches replacements remain as in the current plan. The test equipment is very old and not working in some cases and will require upgrade/replace to maintain the effectiveness of this repair center.

5.5.2.4.3 Increase Coin and Toll Rates by 1994

Increase coin and toll rates by 1994 to provide adequate financial performance to fund new network investments.

5.5.2.4.4. Generate Additional Revenues through Provision of Service to Wait Listed Customers

Generate an additional estimated LE 9.5 million in annual revenues through the provision of service to approximately 35,000 Wait Listed Customers, through the improved ordination of Switching and Outside Plant Plans. A fill ratio of 90% should be targeted and the elimination of Waiting Lists by ***1996***.

5.5.2.4.5 Begin Monitoring and Controlling Unauthorized Access

Begin monitoring and controlling unauthorized access to the network and eliminating situations where a new customer begins utilizing the network before billing is initiated.

- Begin re-billing current unmatched usage.

- ***Improve the processes between the customer contact center and billing to expedite the handling and billing of new service orders.***

5.5.2.4.6 Reduce the Local Free Call Allowance for All Subscriber Classes

- Capture at least 20 percent of the free local call units in 1994 to generate increased revenues and move closer to marginal cost pricing.

- Calculate the usage of subscriber allowed calls on a quarterly basis of 300 calls each by ***1995*** to increase the probability that heavy users of local service will pay for using the network.

- Move to a monthly allowance of 100 calls by ***1996*** to capture additional revenues from every local service user.

5.5.2.4.7 Develop Long-Term Pricing Strategies Using Demand Elasticities and Long Run Marginal Costs

Develop long-term pricing strategies and evaluate various pricing options using the K & M pricing model as a key tool. This will involve formal pricing analysis training for selected members of the ARENTO Staff.

- Move all prices toward optimal marginal cost/price elasticity determined levels to optimize revenue streams to ARENTO while providing customer satisfaction with appropriate value-priced services.

- Focus price reform on local usage pricing to eventually eliminate free call allowances and migrate to total usage sensitive priced local service.

5.5.2.4.8 Collect and Retain Information about Subscriber Responses to Price Changes

Begin collecting and retaining information relative to subscriber responses to changes in prices and continue internal cost analysis to estimate and monitor the marginal costs of each service. This recommendation will require training on both elasticity of demand and on marginal cost estimation techniques specifically for the telecommunications sector.

5.5.3 OPERATIONS MAINTENANCE STUDY

5.5.3.1 Establish Network Quality Standards

Establish, track and manage overall Network Performance Standards (quality of service performance objectives) which meet customer and business goals and objectives and provide the market/financial positioning to attract investors.

- Conform to CCITT performance criteria

- Include standards for office and equipment buildings to ensure environments which promote the highest quality work from the staff and operation of critical equipment and systems.

- The findings upon which this recommendation is based are included herein only by reference to the operations Maintenance Study, Final Report - Volume 1; section 1.4.9.

- *Integrate standards into the Employee objectives and Salary/Bonus Program*

- *Link standards to Marketing, Network and Operations Planning*

5.5.3.2. Establish a Network Management Center

Establish a state-of-the-art Network Management Center in Cairo which integrates the monitoring, diagnosis and resolution of Switching, Transmission and Outside Plant network problems.

- Focus on overall preventative maintenance capabilities required to enable ARENTO to improve the management of critical resources, minimize customer reported problems and improve information for ongoing planning, engineering and operation of the network.

- Incorporate existing centralized operations such as the COM Centers and Fault Location Centers.

- The findings upon which this recommendations is based are included herein only by reference to the Operation & Maintenance Study, Final Report Volume I - Sections 1.4.2 and 3.3.

- *Establish Network Utilization Reporting which provides high quality information on installed, idle and defective Switching, Transmission and Outside Plant Facilities. The report should include specific program information relative to the repair of defective plant and critical plant margins based on current demand.*

- *Establish the critical Processes, in conjunction with the New Network Operations Planning, which are required to effectively incorporate the existing COM Centers and Fault Locating Centers with the new Network Operations Center (NOC), which is being installed in Project V.*

5.5.3.3 Reduce "False Traffic" Volumes

Initiate a Network Quality Survey to identify the source of "False Traffic" problems and the very low call completion rate from the United States and develop a plan for resolution.

- Include a customer education program where required to improve their utilization of the network.

- Establish a tracking, diagnostic and response program to isolate specific problem areas and initiate corrective action. This program should also provide for the reassessment of the impact of the elimination of "false traffic" on current plans for capacity expansion.

- The findings upon which this recommendations is based are included herein only by reference to the Operation & Maintenance Study, Final Report Volume I - Sections 1.4.1 and 3.2.

5.5.3.4 Establish a Program Directed at the Improved Utilization and Management of Outside Plant Facilities

- *Establish a Central Department for Outside Plant within the Operations and Maintenance Sector to provide the overall coordination of programs across the Zones and Fault Location Centers.*

- *Initiate an immediate survey of Outside Plant facilities to determine the level of defective plant and formulate a plan for repair or replacement.*

- ***Establish a policy which mandates the immediate or planned repair of defective cable plant and prevents the restoration/repair of service through only the transfer of service to a vacant cable pair.***

- ***Implement a loop maintenance program through the proper use of Automatic Line Insulation Routing and the establishment of a planned approach to managing the priorities and resources for repair.***

- ***Improve the work order closing process to quickly make new cable facilities available within the local assignment records.***

5.5.3.5 Technical Training

Training switches and Programs should be implemented in the Cairo Training Facility for the AT&T No. 5ESS, Siemens EWSD and CIT Alcatel E10B Switching Systems.

- The site selection for the systems should conform to all environmental standards for the system.

- Training Programs and Facilities should be established which focus on the effective training of engineering, construction and maintenance personnel prior to the deployment of new technologies/products and the improved planning and management of company resources.

- The findings upon which this recommendations is based are included herein only by reference to the Operations & Maintenance Study, Final Report - volume I - Sections 1.4.5. and 3.6.

5.5.3.6 Management and Executive Development Training

The development of staff personnel must include an appreciation of the business implications of their functions and responsibilities. Training Programs should be initiated for business, finance, economics and project management.

- **Depending on the nature of the individual's job, the training should range from appreciation courses to highly detailed working knowledge of the subject matter.**

- **All personnel in the Degree 3 or higher jobs should be required to attend.**

5.5.4 ORGANIZATION STRUCTURE

The Bolded text, highlighting those areas that were impacted by the Organizational Structure and Operations assessment has been omitted from this Section as the remainder of the Recommendations were directly from that assessment.

5.5.4.1 Employee Staffing

5.5.4.1.1 Bench Marking - Employees per Line

The CANTV Venezuelan Telephone Operation was analyzed to establish a basis for comparison with the staffing size of ARENTO since CANTV has been successfully privatized over the past two years. The CANTV Operation has about 24,400 total employees with about 1.9 million access lines in service for an average of 78 lines per employee. The ARENTO Operation has approximately 57,000 total employees with 2.0 million access lines in service for an average of 35 lines/employee. If the CANTV productivity factor of 78 lines/employee is applied to the ARENTO Operation it would result in a staffing goal of 25,600 employees. This represents a reduction in total staffing of over 31,000 employees. Although this is a very aggressive target, an eye should also be on productivity in the United States where a recent assessment of GTE Telephone Operations resulted in an average 300 lines per employee. This factor would drive the ARENTO headcount down to less than 7000! The fact that GTE is managing an embedded base of over 17 million access lines with only 52,000 employees supports this finding.

5.5.4.1.2 Plan to Reach International Competitive Level Employees

Establish a plan to reduce overall employee population to competitive levels over the next six years. The objective measurement of 75 Employees/10K Lines in Service should be established, which compares to the current 250 and will result in an estimated reduction of 23,500 employees over the plan period. The employee reduction program should consider the following within the overall planning process:

- Perform a detailed assessment of jobs and staffing within Degrees 1-6 and establish specific reduction targets by job.
- Establish strict performance evaluation criteria and mandate the termination of Weak Performers.
- Cap the backfill of any vacancies, outside of those in critical Engineering or Programmer Positions.
- Modify the policy regarding Leave of Absence to terminate employees who are hired by outside companies at the convenience of the employee.
- Establish a communications plan with the employees advising them of this program and the options available through the Social Fund.

5.5.4.1.3 Develop a Broader Range of Business Skills Among Management and Executive Staff

Initiate action to begin developing a strong Business, Finance, Economics Accounting and Marketing proficiency within the Central Staff to provide the skills and experience required to move ARENTO into a competitive position i.e. the private sector.

- Emphasis should be placed on hiring college graduates with Economics, Marketing, Business Accounting and Finance Degrees.
- Professional recognition should be afforded these employees as is provided the engineering personnel.
- Promotional/career opportunities should be formulated over time to retain productive employees.

5.5.4.1.4 Reduce Turnover with a Competitive Wage and salary Structure

Resolve the specific issue of high turn-over within the Engineering and Computer Programming Disciplines on a priority basis.

- Establish salary ranges within those disciplines based on a more detailed bench marking of salaries and overall compensation with the private sector. Consideration for planning purposes should be given to LE 1400/month for Engineers and LE 1000/month for programmers. These salaries were obtained during interviews as the levels that the personnel are receiving upon leaving ARENTO for comparable jobs.
- Establish a minimum of four steps of progression within the engineering and programming disciplines with specific compensation, development and promotional criteria.
- Provide opportunities for professional development through seminars and conferences.

5.5.4.2 Employee Performance Evaluations, Merit Increases, Career Pathing and Promotions and Continuity Planning

5.5.4.2.1 Employee Performance Evaluations and Merit Increases

Revise the existing policies and processes associated with employee performance evaluation and compensation to provide a competitive level of compensation based on simple but effective methods of employee evaluation and ongoing adjustments to salaries based on Pay-for-Performance.

Establish a detailed plan outlining the operational and financial requirements and structure a timeline which balances personnel and financial impacts associated with increasing wage and salary levels.

Eliminate the broad "Degree" Salary Classifications in Ministerial Decree 200 and replace it with "Salary Level" Classifications which align with specific levels of general accountability and responsibility. Although College Degrees may be a very appropriate requirements for certain jobs within a Salary Level, a Degree should not be considered a necessity for all jobs within a general Salary Level.

5.5.4.2.2 Career Pathing and Promotions

Eliminate the rigid "Minimum Period for Promotion" in Law 200 and replace it with methods for determining promotional readiness based on the capabilities and motivation of the employee.

5.5.4.2.3 Continuity Planning

Establish a Continuity Program for critical positions to prevent disruptions in meeting the company objectives when personnel changes occur.

Establish within specific disciplines, i.e. Engineering, Operations, to provide motivation to those employees that wish to remain within those specific fields.

Establish Training and development programs which provide focused instruction and resources for the employee to establish the skills and motivation required of the position.

- A broad level of business, marketing, finance and economics should be established for the Degree 3 and higher positions as well as technical instruction where necessary.

- Establish specific training requirements for each job and provide convenient, effective training programs to satisfy those requirements.

- Recognize the importance of networking with other industry personnel and encourage attendance at seminars and conferences.

- Include computer orientation/appreciation in management training programs, including the importance of sharing information through common data bases.

- Marketing training should include demand elasticities and cost margin concepts.

5.5.4.3 Employee Communications

5.5.4.3.1 Develop a "Spirit of Teamwork" Throughout ARENTO

As market reform begins to occur within ARENTO, it is important that a new culture begin to develop between the company and the employee. The employee should be viewed as a valuable resource and a partner in the business. Since a major element in that transition will be the communication of the changes and direction with the employee it is highly recommended that a regular communication be established with the employees to keep them informed. This may also prevent resignations from the company by critical employees if they have early information on major changes that are planned.

- Consider the dissemination of information with employee pay.

- The Chairman, Vice Chairmen and Central Department Chiefs should personally meet with employees to communicate priorities, address issues and answer questions.

- Delegate responsibility and accountability downward throughout the organization and decentralize decision making to the lowest possible levels.

- The strongest communication with the employee is going to be through action! The employee will be waiting to see if market reforms are really going to take place and will respond directly to the actions of the company. It is critical that the company meet its commitment in accomplishing the actions that are communicated to the employee.

5.5.4.4 Business Processes and Information Management

5.5.4.4.1 Define and Refine Business Processes

Using the "Business Process Diagram" in Exhibit 5-3 page 5-7, establish an overall plan for the improved efficiency and effectiveness of all of the business processes within ARENTO. This should include the delineation of work flows, functions and responsibilities; incorporation of computerization where possible; efficient networking between systems and the recognition of information as a strategic resource. The goal should be to maximize productivity and effectiveness by minimizing duplication of work and information, ensure that the employees jobs are clearly defined within the overall processes and provide a structure for the effective ongoing management of the business.

This work will be critical in establishing the employee staffing levels and organizational structures (see 5.5.4.1 Employee Staffing and 5.5.4.5 Organizational Structures).

5.5.4.4.2 Develop an Information Management Plan

Develop a comprehensive 5-year Information Management Plan which includes the applications, hardware, software, network, training, priorities, data base requirements and funding requirements associated with the establishment of an effective, efficient computer operation.

- Establish a data dictionary indicating the data elements to be centrally stored, including standard definitions and identifiers.

- Revise Job Descriptions based on accountabilities and responsibilities identified within the Business Processes.

55

- Establish the minimum tracking and reporting requirements to provide for the effective management of critical processes and deliverables.
- Establish an effective systems/applications support capability to assist users in their use and operation of the systems.
- Reinforce the importance of mechanization and the sharing of common data elements by Chairman and Vice Chairmen through communications with the Employees.

5.5.4.5 Organizational Structure

Establish an Organizational Structure that will improve the management of long-run revenues, marginal costs and quality of service. The new functional organization proposed in Exhibit 5-2 page 5-6, should consolidate accountabilities for the major segments of the business and provide a concerted focus on the marketplace and the employee. The major functions of the Sectors reporting directly to the Chairman have been outlined in Exhibit 5-19 "Proposal of Accountabilities of Major Sectors". The most notable changes are discussed below:

5.5.4.5.1 Create a Customer Service Sector - Single Point Accountability for Customer Service

Establish a Commercial Sector (marketing) reporting directly to the Chairman with accountabilities to establish and manage a 5-year marketing plan for determining the direction of ARENTO products and services that capitalize on the needs of the marketplace. Additionally, the development and the management of sales functions with capabilities to implement the five year Marketing Plans.

Realign the Marketing and Sales functions of International to an International Department within the new Commercial Sector.

Realign Customer Contracts functions from Finance/Commercial, Customer Connections and Customer Repair from OM.

The consolidation of these Marketing, Sales and Customer Service functions into a single organizational entity will provide the single point of accountability for customers to the zone/district personnel.

76

Exhibit 5-19 (Page 1 of 2)
PROPOSED ACCOUNTABILITIES OF MAJOR SECTORS

DEPARTMENT/ SECTOR	RESPONSIBILITIES
Finance	• Store Keeping (warehousing), inventory management and the purchas of capital items. • Overall Budget Development and Management • Customer Billing and Accounting • Financial Planning and Budgeting • Auditing
Engineering	• Architectural Plans outlining the migration of new technology • Program level planning for units of plant, budgets and service information • Detail all major equipment requirements and negotiate pricing • Engineering, design and installation of Switching, Transmission and Outside Plant Networks • Establishment of Projects Funding requirements and coordination for budgeting • Tracking and reporting Project Execution • Coordinate Project Design and Planning across all Sectors • Track and manage expenditures according to approved budgets
Execution	• Management of all Construction Resources • Project management and control • Minor material ordering • Work Order Scheduling • Project Inspection • Contractor Selection and Tracking • Project Acceptance Testing • Maintenance of the Approved Contractor Listing • Vehicles and Equipment
Operations	• Installation and maintenance of Telephone Service to the customer • Technical inspection and reporting of Engineering, Traffic Offices and Maintenance work • Establishment and management of programs to resolve problem areas in work performance • Engineering, installation, maintenance and daily operations of International Traffic, including telegraph, Int'l microwave and satellite communications. • Liaison with Law System for investigation of complaints and law suits and support to Legal Affairs • Operation and maintenance of Traffic (Operator) Offices • Planning, engineering, maintenance and daily operation of new services, i.e. Cellular Mobile, Paging and Rural Radio. This includes the coordination of new services with the Chairman and Board of Directors as required.

EXHIBIT 5-19 (Page 2 of 2)
PROPOSED ACCOUNTABILITIES OF MAJOR SECTORS

Administration	• Implementation of Personnel Policies, regulations and maintains employee records. • Liaison between ARENTO and Ministries for conformance with government policies on employee matters. • Organizational Structure Planning and defining staffing levels, responsibilities and salary levels within the organization. • Communication of all organizational decisions and standards for implementation • Design, preparation and implementation of all orientation, entry-level and in-service training programs for ARENTO Personnel • Operate and Manage the "Telecommunications Training & Research Institute" in Cairo and the eight Regional Training Centers. • Establish, implement, manage and administer Job Classifications based on directives of Central Organization for Organization and Administration. • Social care of employees, i.e. health, culture, sports and general appearance of workers • Follow-up on work procedure standards with the Zones and Departments • Coordinate personnel transfers between jobs • Staffing level studies, analysis and requirements • Personnel Training Policy development and implementation, including research of foreign training centers/programs.
Information & Computers	• Establish and maintain the official Data Dictionary • Establish and maintain an Information Systems Network Plan • Maintain a data base on all Processes for ongoing Planning • Identify and coordinate opportunities and requirements for computerization with the Chairman and Sectors • Coordinate computerization programs with Sectors and departments • Identify, plan and manage budgets associated with systems deployment • Implementation of new systems, including training, populating of information and ongoing support • Establishment and maintenance of central data bases
Planning & Follow-up	• Finalizes the budget for approval, including Project costing and financial decisions by High Committees • Coordinating budget approval with the Chairman and Board of Directors • Tracks budget performance and Administers ongoing changes to the budget • Administers public and government complaints about telecommunications service • Liaison (Communications) with Ministries • Planning and allocating Foreign Currency and Spare Parts • Approval of personnel assignments to Operating Sectors throughout Egypt. • Distribution of bonus and over-time allowances

5.5.4.5.2 Create an Administration Sector

Establish an Administration Sector (human resources) reporting directly to the Chairman with accountabilities for all employee staffing, compensation, benefits, training/development and public affairs. This position will not prevent the department level (On-the-Job) training that is now being performed. Instead, this responsibility will be to develop the programs, resources and tools required to best train and develop the employees. The Training Facilities will be under the direct responsibilities of this central department.

5.5.4.5.3 Create a Strategic Business Planning Department

Establish a new strategic business planning department within the finance sector to perform company-wide assessments of 5-year business opportunities, financial and competitive positioning. This position will provide the chairman and board of directors with critical information in formulating and managing the long-run strategic direction of ARENTO.

5.5.4.5.4 Create a Treasury Department

Establish a Treasury Department within the Finance Sector.

5.5.4.5.5 Create a Ministry Affairs Department

Establish a new Ministry Affairs Department to control and coordinate ARENTO activity with the various ministries of the Government of Egypt.

5.5.4.5.6 Create an Outside Plant Department

Establish an Outside Plant Department within the new Operations Sector to provide the company-wide planning, program development and coordination required to improve the management of that important part of the business. The responsibilities for Fault Locating Centers should be realigned to this position.

5.5.4.5.7 Create a Contract Administration Department

Establish a Contract Administration Department within the Execution Sector and realign all contract and contractor coordination and management to that position. This will include development of an Approved Contractor List, tracking/reporting cost and quality, maintaining files.

5.5.4.5.8 Move New Service Department to the Engineering Sector

Realign the New Services Department from the O&M Sector to the new Engineering Sector to capitalize on the developing network infrastructure in the provisioning of new service requirements. The business process assessments called for in Recommendation 5 should address how new service areas should be established and how the functions are integrated into the normal mainstream of functions across the organization.

5.6 IMPLEMENTATION GUIDELINES

5.6.1 Resources

The effective implementation of the recommendations contained in this report will require a detailed, comprehensive implementation planning effort and a major commitment by the Chairman of ARENTO along with support from the Ministries of Communication, Finance, Planning, International Cooperation and the Central Organization for Administration and Organization.

A team should be formed with participation by at least one key member of each Vice-Chairman's staff. That member of the team should be given overall authority to make decisions on behalf of the Vice-Chairman and obtain further resources as needed.

5.6.2 Action Plan

The "Implementation Guideline Proposal" contained in Exhibit 5-20 provides a detailed outline of the major events and estimated annual timing of the many activities. The following are the recommended priorities of the Team:

Review the overall Implementation Guideline and finalize the actions and timelines.

Identify the overall resources associated with each part of the ongoing study.

Establish a management process to provide for issue resolution, tracking and reporting.

Review major priorities, timelines and resource requirements with the Vice-Chairmen and Chairman

Establish action plans for each element of the recommendations

Establish sub-teams to begin work on the various parts of the recommendations.

Extremely close coordination will be required with legal and policy personnel throughout this implementation planning to prevent road blocks and maintain a smooth transition.

Exhibit 5-20
ORGANIZATIONAL STRUCTURE AND OPERATIONS ASSESSMENT
IMPLEMENTATION GUIDELINE PROPOSAL

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
BILLING AND COLLECTION				
Reflect changes in the price of Hard Currency and increases in Foreign Interest Expense in Income Statements	Recast income statements for 1993-1997	Begin source/use of Funds and Income Statements		
Migrate from semi-annual to monthly billing to all customers for Local Access Local Usage and International Calling	Quantify Mo. Billing Cost Finalize Billing Policy & Stnds	Implement Monthly Billing where possible Establish Billing Processes	Complete roll-out of Billing System	Finalize Integrated Monthly Bills to all customers
PLANNING				
Improve the overall effectiveness of Business Planning	Establish Strat. Planning Dept. in Finance	-Implement 5-year Strategic Plan -Complete staffing	Initiate tracking and mngt. of plan Refine processes	Begin utilization of Strat. Plan with BOD and Chmn to drive business

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	SPEC C	ACTIONS	REQUIRED	
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
Improve the overall effectiveness of Network Planning	Id Traffic Data Rqmts Transfer New Services Dept. to Net. Plng. Eliminate 60K line limit on switches	Training for Economic Analysis - Planning Establish Architecture Planning Dept. Policy on F.O. and loop elect. Functional Spec for CAD System & est. plans for implement.	Begin to Implement CAD for OSP/COE	Fully deploy CAD system and populate data.
Establish a Network Operating Plan	ID Plan framework, and info rqmts. and sources Est. 5-yr Operational goals and obj. based on Net. Plng. direction	ID Operations rqmts to support Net. Pln. First draft of 5-yr Oprn Plan Initiate empl. reductions	Est. tracking for Oprn Plan Validate resource assumption for new organization	

163

Exhibit 5-20
ORGANIZATIONAL STRUCTURE AND OPERATIONS ASSESSMENT
IMPLEMENTATION GUIDELINE PROPOSAL

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
Perform a detailed analysis of Trunk Design, Utilization, Maintenance and Administration to identify specific areas of improvement	Establish assessment criteria Commit resources	-Complete assessment and coordinate issues for resolution -Est. personal performance obj.	-Reporting on progress toward resolving issues -Input results into Network and Operations Planning -Estab. ongoing reporting of Trunk Utilization	
REVENUES GENERATION AND MANAGEMENT				
Begin marketing high-margin services such as Business Line Hunting, Call Forwarding, Call Waiting and DTMF Signaling, and review rates on coin and toll services. (Annual Revenues impact of LE 7.5 million)	Market Plans initiated Modify 5-year Financial Plan - Revenues Plan to accelerate X-bar replacements	Finalize Mkt Plans Develop Sales plans Train Sales & Contact and Oprn Employees	-Implement Sales Plans -Establish tracking of sales and revenues.	-Update Mkt and Sales plans with add'l services

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	SPEC C ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
Eliminate the Wait Listing for telecommunications service by 1995 (Annual Revenues impact of LE 9.5 million)	ID Switching & OSP facility rqmts. and update budgets Coord. with Operations Planning	Complete construction in priority areas Administer Waiting List for Service	Provide report on Waiting List and estab. priorities for const. Estab. objectives for ongoing service provisioning intervals	Commercial to refine forecasting process to support obj. and reporting.
Lower and possibly eliminate the free call allowance for all subscriber classes	Capture at least 20% of free local calls Develop long-term pricing strategy, using marginal cost analysis using K&M Pricing model	Reduce free calls to 300 per quarter per customer	Reduce free calls to 100 per month Re-assess for migration to full useage sensitive pricing.	
Establish the methods and procedures for the collection, analysis and retention of customer responses to pricing changes	Identify key customer response information requirements Establish processes, methods and procedures for collection and storage Estab. Marketing Training	Provide accessibility of Customer response information for Strat., Network and Operations Planning		

165

Exhibit 5-20
ORGANIZATIONAL STRUCTURE AND OPERATIONS ASSESSMENT
IMPLEMENTATION GUIDELINE PROPOSAL

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
COST MANAGEMENT				
Establish the methods and procedures to collect, analyze and process marginal cost information	Train key personnel on Marginal Cost Concepts Establish the process for data collection, analysis, action and coordination with Commercial.	Implement required methods and procedures and systems to support process.		
Improve the use and management of Contractors for Network construction work to improve the cost and quality of projects.	Modify policy to authorize use of Approved Contractor Lists Transfer all Contractor Admin. to Execution Establish and implement Approved Contractor Lists Establish a policy requiring contractors to have liability insurance and/or bonding.	Establish cost and quality benchmarks for contractor selection Establish the Contract Administration Committee Establish procedures within ARENTO to enable employees to bid on projects.	Implement competitive Unit and Flat Sum (Bid and Quote) bidding procedures.	Establish a Contract Administration System and interface with the CAD System to automate the selection of company vs contract resources.

Exhibit 5-20

ORGANIZA UCTURE AND OPERATIONS ASSES ATION GUIDELINE PROPOSAL

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
NETWORK QUALITY AND MANAGEMENT				
Establish, track and manage overall Network Performance Standards based on Commercial and Business Goals and objectives	Identify Cost and Quality performance standards, goals and objectives Chairman and BOD approval to overall Performance Program.	Integrate standards into performance evaluation process. Each employee should have specific, measurable objectives based on overall performance stnds.	Establish incentive programs around the Performance Standards and Objectives.	Upgrade Performance Standards based on progress and future expectations.
Establish a Network Operations Center in Cairo to integrate the monitoring, diagnosis and correction of Network Problems		Complete installation of the NOC on Project V. Establish the processes required to incorporate the use of the NOC into the overall operation.		

96

Exhibit 5-20
'AL STRUCTURE AND OPERATIONS ASSESSMENT
.EMENTATION GUIDELINE PROPOSAL

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
Initiate a Quality Survey to identify the sources of problems associated with "False Traffic".	Establish a plan for monitoring and diagnosis of Loop and Trunk networks Concurrence on resources and methods of tracking results.	Initiate corrective action with customers, connecting carriers or ARENTO Maintenance Operations.	Perform a sampled survey of Lines and Trunks for "False Traffic" problems.	
Improve the overall utilization and management of Outside Plant Facilities.	-Establish the Outside Plant Department within Operations. -Survey to determine extent of defective plant and problems in work order closing. -Realign responsibilities for Fault Location Centers to the new dept.	Establish a policy restricting field transfers to clear service problems Establish a plan for OSP maintenance and repair based on performance objectives and cost	Implement systems, training and processes in line with OSP Plan Implement tracking and reporting of OSP performance.	Upgrade Performance Standards based on improvements, customer and business requirements.

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
TRAINING				
Complete the training of Engineering, Maintenance and Execution Personnel prior to their working with the systems	Complete the installation of a No. 5ESS Training Switch and complete initial training Arrange for similar training switches for EWSD and E10B Systems	Complete installation of EWSD and E10B Systems and schedule employees for training Identify Transmission training requirements based on Network Plans.	Expand Training Center training to include on-site transmission systems for Loop and Trunk applications.	
EMPLOYEE STAFFING AND MANAGEMENT				
Establish a clear organizational commitment to Employee matters.	Establish the position of Vice Chairman-Administration Establish all core processes for Human Resources Initiate Communications with the Employee on planned changes.	-Establish management process for coordinating and controlling the many organizational changes within ARENTO		

178

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ORGANIZATIONAL ꞏ ꞏ ꞏ RATIONS ASSESSMENT
IMPLEM 'A ꞏ ꞏ ꞏ PROPOSAL

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
Establish a Plan to reduce the overall employee population to competitive levels by 1999.	Validate the 6-year goal of 75 employees/10K in-svc lines Establish a specific downsizing plan including targets by job Freeze hiring Identify Legal and Reg. Considerations to force down-sizing	Initiate employee reductions based on job priority, performance Coordinate employee reduction program with Social Fund.	Validate reduction goals and objectives based on growth and internal efficiencies, i.e. computerization, etc.	
Expand Staffing and Development Programs to include a broad range of business, finance, marketing, sales and economics for Degree 3 and higher positions.	Identify general business and finance personnel requirements and initiate college recruitment. Identify specific training requirements by job for appreciation vs working knowledge.	Business Degree Grads recruitment started Establish initial training schedule and attendees Finalize programs through pilot courses and make generally available.	Overall training made a pre-requisite to advancement and part of Performance Appraisals.	Upgrade training program based on levels of proficiency and business requirements.

	IC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
Reduce the level of employee turn-over in the Engineering and Computer Programming Jobs.	Benchmark the required salary ranges Establish a staffing and compensation plan for these disciplines with impact analysis for other jobs Identify budgetary impact	Implement 4 step progression of jobs and salaries within the Engineering and Programming Disciplines Initiate testing of candidates and placement.	Initiate regular Performance Evaluations and progression testing within new program Validate budgetary impact and effect on employees leaving the company.	Update in conjunction with overall compensation and development program
Revise overall policy and procedures regarding Employee Development and Compensation to become competitive with the Private Sector	Benchmark remaining salaries Revise Promotional Policies to remove time-in-grade constraints Identify Operational and Financial impacts	Establish plans for the implementation of final compensation and development program Identify tracking and management mechanisms	Initiate new processes, methods and procedures.	Update overall compensation and development program.

121

ORGA[illegible] STRU[illegible] OPERATIONS ASSESSMENT
MENTA[illegible] LINE PROPOSAL

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	1994	1995	1996	1997
EMPLOYEE COMMUNICATION				
Establish the mechanisms for improved communication with the employee	Establish an Internal Communications Plan relative to the many changes going on in ARENTO Initiate at least one major communication from the Chairman	A minimum of bi-annual meetings of the Chairman and Vice-Chairmen with supervision to discuss changes, plans and issues.	Regular bulletins, newsletters, etc. transmitted to all employees.	
BUSINESS PROCESS REFINEMENT AND INFO. MANAGEMENT				
Re-assess all of the major business processes within ARENTO to improve effectiveness and efficiencies and identify areas of computerization for systems planning.	Identify major processes to be reviewed Top commitment from ARENTO management to support implementation Identify resource requirements Establish long-run business goals and objectives	Resolve top priority processes Identify support system requirements Identify Organizational and Operational Impact.	Resolve next layer of processes, identify support system requirements and impact on resources.	Reassess overall Organizational structure based on new processes and resources.

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
ORGANIZATIONAL STRUCTURE				
Establish an organizational structure which supports the commitment to the Marketplace and Employee and minimizes the duplication between departments.	Establish a new Commercial Sector Establish a new Administration Sector -Establish a new Strategic Business Planning Dept. within Finance Realign the New Services Dept. to Planning Establish an OSP Dept. within Operations.	Establish Treasurer Dept. within Finance Re-align the Mktg. & Sales part of International to Commercial Sector Establish a Contract Administration Dept. within Execution Sector.	Establish a Ministry Affairs Department within Commercial.	Re-assess the overall Organizational structure based on the process analysis and evolving market and business requirements.

173

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ORGANIZATIONAL E AND OPERATIONS ASSESSMENT
IMPLEM 'A GUIDELINE PROPOSAL

	SPECIFIC ACTIONS REQUIRED			
RECOMMENDATIONS	**1994**	**1995**	**1996**	**1997**
IMPLEMENTATION MANAGEMENT				
Manage a smooth implementation of the identified recommendations through specific accountabilities, tracking and management processes.	Form a transition team comprised of ARENTO, Ministry and K&M Personnel Formulate an overall structure for managing the implementation of the overall program contained in this report.	Initiate meetings with sub-committees associated with each major area of change Establish issue management processes Implement an executive reporting mechanism.	Initiate benefits analysis and reporting on initial areas of change Update the Transition Committee makeup, methods and procedures based on progress in implementation.	

SECTION 6 PROFITABILITY AND SELF FINANCING EXAMINATION AND ASSESSMENT

6.1 SUMMARY

ARENTO is one of the more successful public sector companies in Egypt. Their customer base is growing which makes telephone service more valuable; access rates are low and substantially below cost; service levels are improving; waiting lists are declining and could be all but eliminated in 1996; improvements are underway in network planning and there are profits available to finance other important social programs.

The assessment of the K&M team is that ARENTO has been and is now successful in terms of profitability. However, when looking out into the future, ARENTO's continued success is now imperiled and t risk due to a declining sustainable growth rate and a serious decline in working capital. The retention rate of carried over surplus is not sufficient to support the financing of growth that is needed to meet existing or future demand. Growth over the recent past and continuing into 1994 and 1995 is being financed with working capital, which, if continued, will imperil the financial health of ARENTO and has contributed to a serious decline in ARENTO's liquidity.

The GOE and ARENTO may find it desirable to establish a national telecommunications policy consistent and integrated with the GOE's plans for market reform. It would then be possible, consistent with the goals and objectives established in the national telecommunications plan, to evaluate investment options and then decide, based upon social and political priorities how capital could be most economically utilized and allocated. This will determine if ARENTO will continue to progress to the status of a World Class Telecommunications Provider or regress and decline to mediocrity in failing to meet known demand now and in the future for telecommunications service. ARENTO's continued success is now at a cross-road.

ARENTO, due to their past successes, is now at a critical junction point on several fronts. Profitability is declining, liquidity is imperiled, ARENTO's future self-financing capability is nominal at best and infra-structure changes are needed as ARENTO moves toward commercialization.

Financial Assessment

The most important front appears to be ARENTO's declining ability to finance the growth (construction of telephone plant facilities) that is needed to meet lines-in-service objectives for the current five year planning period. ARENTO's declining ability to finance growth has arisen due to continuing increases in the transfer of carried over surplus to other government ministries. In 1994, total transfer payments are likely to exceed net income. The solution to this dilemma is dependent upon the development and growth of a national telecommunications policy with plans and objectives for the development and growth of the telecommunications sector. This policy should indicate the priority the GOE places on developing the telecommunication sector. Such a priority would then be useful in allocating capital and governing the level of transfer payments.

In conclusion, any single action or a combination of actions would be desirable now to restore ARENTO's ability to meet existing and future demand for telecommunication services, improve declining profitability and working capital and enhance their self-financing capability. These actions include:

- Increase revenue (marketing of new services and tariff changes)
- Decrease expenses (hiring freeze)
- Increase cash collection from accounts receivable
- Decrease the payout ratio (limit payout ratio to 15%-25% of carried over surplus)
- Decrease capital spending
- Increase equity

Over the longer term, additional equity should be acquired to improve ARENTO's debt/equity ratio and to improve their self-financing capability. This could be accomplished by creating a joint stock company for telephone operations and subsequently issuing preferred (non-voting) stock and convertible debentures.

Additionally, and most importantly, the USAID grants to the GOE for telecommunication, that are subsequently loaned to ARENTO, could be transferred from debt to equity. This would have the impact of increasing equity, decreasing debt and decreasing interest expense. Subsequent grants, if any, would likewise be treated as equity.

Infra-Structure

If ARENTO's declining financial position and ability to finance growth can be overcome, which we assume it can, another cross-road will develop that is related to the infra-structure that will be needed to support an approaching period where the rate of growth is likely to level off. This will be a period beginning with the elimination of the waiting lists in 1996 and beyond and will require a more intense focus on efficiency, productivity, automation and training. Customers will become more selective and will require a higher level of quality, service and a broader array of service options to satisfy their telecommunications needs.

Infra-structure changes that would enhance the commercialization of ARENTO include:

Broader Financial Management Functions

- Development of a broader level of financial management skills including expansion of the treasury function to cover capital structure, cash management (including foreign currency hedging), funds flow planning, coordination and follow-up on the collection of accounts receivable and debt negotiation.

Budgeting and Strategic Business Planning

- Development of a budgeting and strategic planning program that provides specific goals and objectives along with the appropriate annual financial statements - income statements, balance sheets and cash flow statements, for developing financial plans and monitoring actual results.

Billing and Collection

- Migrate billing and collection from semi-annual billing to monthly cycle billing. This will require the introduction of a comprehensive operationally integrated billing and collection system.

Government Affairs

- Providing a focal point for the coordination of interministeral contact.

- To increase productivity and efficiency, replace the annual government budget reviews (revenues, expenses, salaries, organization and capital spending budgets) with submission of a rolling five year strategic plan. The GOE could then evaluate ARENTO based on results achieved compared to the goals and objectives agreed upon in the strategic plan.

6.2 INTRODUCTION

The U. S. Agency for International Development (USAID) has made a major commitment to assist in the development of Egypt's telecommunications sector, which is regarded as having a key role in the country's overall economic development. ARENTO currently faces a number of constraints that may increasingly impede the development of the telecommunications sector. Such constraints include complex policies and institutional interface requirements, profitability, internal cash generation and the financing of future growth. Therefore, a comprehensive examination and assessment of the Egyptian telecommunications sector has been undertaken to determine the nature of changes to be made, the form they should take and how and when these changes might be implemented. Emphasis in this assessment will be placed on recommendations that will enhance the efficiency of the telecommunications sector by increasing institutional and fiscal autonomy and thus, improving the institutional capabilities of ARENTO.

6.2.1 OBJECTIVES AND SCOPE OF THE ASSESSMENT

The objectives of this assessment are to identify specific opportunities to enhance ARENTO's financial independence, profitability and self-financing capacity in support of the development of the telecommunications sector in Egypt. To accomplish these objectives the assessment will determine how ARENTO can encourage the participation of the private sector in the purchasing of bonds and other financial instruments and assess the related legal ramifications.

6.2.1.1 Scope of Work

The K&M team shall review the profitability and self-financing capacity of ARENTO. In addition, the K&M team shall review the findings of the pricing study to assess ARENTO's capability to encourage the participation of the private sector in financing future expansions. The K&M team shall also review the effect of ARENTO's current and proposed future tariff rates on future profitability in order to attain a degree of financial independence. Based on the results of this review and assessment, the K&M team will make preliminary recommendations that will enhance the autonomy and financial viability necessary to increase interest in investment and expansion of the telecommunications sector.

6.2.1.2 Assessment Methodology

In order to conduct the profitability and self-financing assessment of ARENTO and accommodate USAID's need for an early presentation of preliminary findings, the assessment will be divided into three stages.

The first stage of the assessment concentrated on the finding of facts and the development of interim recommendations that were published in the form of a task deliverable entitled Interim Report and Recommendations. The report was issued to USAID and ARENTO with a request for formal comments on the findings, conclusions and recommendations that have been incorporated herein.

The second stage of the assessment involved, where appropriate, incorporating the formal comments received into a Draft Final Report that was published as an executive summary prior to the formal presentation. The formal presentation included clear, concise and lively excerpts from the interim report and focused upon major areas of interest to senior management. Comments were welcomed at the presentation.

The third stage of the assessment involved, where appropriate, incorporating the comments received at the presentation into this Final Report that is to be published and distributed to USAID and ARENTO for subsequent follow-up and implementation.

6.2.1.3 Review of Previous Studies

The profitability and self-financing assessment includes a review of the findings and recommendations of the Cost of Service/Rate Study completed by K&M Engineering and Consulting Corporation in September 1993 related to pricing. ARENTO's current and proposed plans for tariff changes were assessed and the impact on profitability has been included to evaluate the extent such changes, if any, may have in enhancing financial independence.

6.2.2 INFORMATION REQUESTED

Information was requested using two approaches. One approach was to identify specific information required that could be gathered in the form of hard copy. The second approach was to conduct personal interviews with responsible management and executive personnel to ask questions, clarify and develop an understanding of information contained in hard copy reports.

Exhibit 6-1, is a copy of the information requirement request that was sent to selected individuals at ARENTO:

EXHIBIT 6-1 (Page 1 of 4)

DATA AND INFORMATION REQUIREMENTS

In performing the task assignment presented in this Work Plan, the K&M Team will require access to the following information, data and materials. To assist ARENTO's counterpart organizations and the MTCMT in executing and assembling these documents in a manner consistent with the milestone responsibility dates contained in the proposed schedule, this request has been organized along functional and task-related lines as presented below.

A. REGULATORY AND LEGAL FRAMEWORK (TASK 3)

- Any public laws impacting the operations of ARENTO, including but not limited to:
  - Any tax laws
  - Import and export laws
  - Employment laws
  - Occupational Safety laws
  - Environmental laws
  - Laws regulating rates and tariffs
  - Laws governing telecommunications services, financial performance and quality of service
  - Laws or policies governing ARENTO debt sources, whether public or private

178

Exhibit 6-1 (page 2 of 4)

- Role of authority that are currently exercised between ARENTO and the various ministries of the GOE
- Any public laws that are in effect or being developed that govern the creation of public organizations and corporations
- Any public laws governing the relationship between public organizations or corporations and the various branches of the Government of Egypt (judicial, legislative and executive)
- Any public laws governing private or quasi-private organizations or corporations
- Any public laws governing the relationship between private organizations or corporations and the various branches of the Government of Egypt (GOE)
- Governmental administrative practices, rules and policy statements that are in effect or planned, that impact or establish the framework of the relationship between ARENTO and the Ministries of Transportation and Communication, Finance and International Development
- Any governmental administrative practices, rules and policy statements that impact ARENTO's autonomy in setting rates, quality of service, financial performance and the provisioning of telecommunications services
- A list of reports and information that are exchanged between ARENTO and the various branches of the GOE
- A list of meetings that are regularly held or planned to be held between ARENTO and the various branches of the GOE, including agenda topics and attendees
- A copy of the charter and by-laws of ARENTO
- A statement outlining the legal and effectuated authority of ARENTO
- A list of the board of directors and officers of ARENTO
- Any planned or proposed changes that are being contemplated in laws, administrative practices, rules and policies related to ARENTO's operations and the various branches of the GOE
- A copy of any other studies completed within the last five years for ARENTO
- The GOE's strategic goals and objectives related to the economic development of Egypt and the telecommunications sector
- The strategic objectives and goals related to the development of a market-based economy for either the executive branch of the GOE or the MTCMT

B. Organizational Structure and Operations (TASK 4)

- Existing operational & organizational structure of ARENTO:
  - headcount
  - functional organization
  - salary structure
- Description of functions and responsibilities for each segment of the organization

Exhibit 6-1 (Page 3 of 4)

- ARENTO and MTCMT policies, standards and practices covering the hiring, development, administration, promotion, management continuity and management of human resources
- Existing and planned (5 yrs) expense budget showing total dollars and training by Sector
- Policies, standards and practices relative to budget development and management
- Policies and practices relative to training and development
- Political and legal factors affecting ARENTO manpower management
- Critical skills/employees
- Two year history of the number of employees leaving those critical areas by month and average duration for backfilling positions
- HR objectives of GOE and Ministries of Finance, Communication and Transportation, and International Development
- Names, addresses and telephone numbers of 4-6 people that have left each critical area over the past year and approval to contact for survey
- What plans exist for the management of information within ARENTO and for improving billing and collection processing
- How are technical and operational standards developed and managed within ARENTO
- How is frequency spectrum managed and controlled

C. Profitability and Self-financing Assessment (TASK 5)

- Actual results reflected in Financial Reports for the fiscal year ending June 30, 1993; Balance Sheet; Income Statement; Source and Use of Funds; Capital Spending-Projects
- Information concerning the financing of other ARENTO sponsored commercial telephone operations
- Approved budgets and projected financial statements for the fiscal years beginning January 1, 1993 through January 1, 1997:
  - Balance Sheets
  - Income Statements
  - Source and Use of Funds Statements
  - Capital Spending Plans/Projects
- Required budgeted amounts to accomplish the strategic goals and objectives as reflected in:
  - Balance Sheets
  - Income Statements
  - Source and Use Statements
  - Capital Spending Plans/Projects
- List of strategic goals and objectives, including but not limited to service penetration levels, lines of switching capacity available, lines in service, tariff rates that are to be changed and planned sources of project funding

Exhibit 6-1 (Page 4 of 4)

- Actual outstanding debt with repayment schedules broken down between public and private sources for the fiscal year ending June 30, 1993

- The planned debt with repayment schedules broken down between public and private sources for the next five years, fiscal years beginning July 1, 1993, through July 1, 1997

- Planned tariff changes and restructuring to be proposed during the next five years (fiscal years beginning 1993-1997)

- Infrastructure changes that are included within the approved and required five year budget plans related to:

  * Training
  * Increased mechanization, i.e. new or planned data processing capabilities, additional personal computers
  * Reorganizations, in other words, creating additional departments such as Marketing or Sales.
  * New or expanded services to be promoted and developed over the next five years.

- Budget assumptions related to exchange rate changes over the next five years (fiscal years beginning July 1, 1993 through July 1, 1997)

- Foreign held debt with repayment schedules by country, for fiscal years beginning June 30, 1993 and for planned foreign held debt for fiscal years 1993-1997

- List of grants, loans and aid received over the last 5 years and amounts anticipated over the next 5 years

Exhibit 6-2, is a detailed questionnaire that was used as a guide and aid during the personal interviews with selected personnel:

EXHIBIT 6-2

INTERVIEW QUESTIONNAIRE
Profitability and Self-Financing Assessment

The interviewers have identified these initial questions to begin the interview session. The interviewers reserve the right to pursue other lines of discussion and questions, outside of those specifically identified, depending on the direction of the overall discussions. If the interviews lead to the need for specific information which requires some research or further investigation on the part of the interviewee, a reasonable time frame will be provided to supply the identified information.

1. What are the major responsibilities of your position?
2. What are the critical skill sets required to be successful within your department?
3. Are you and employees within your department receiving adequate training?
4. What departments do you interface with, directly or indirectly, within ARENTO and Ministries or Authorities of the GOE?
5. Do the Ministry interfaces add value and/or result in any inefficiencies or impair your effectiveness in performing your job?
6. What is the value or purpose of the ministry interfaces?
7. How do you determine your available internally generated funds?
8. How do you determine your requirements for external fundings?
9. What are your sources of external fundings?
10. How do you determine your total financing requirements?
11. What is the approval process for your financial and financing plans?
12. How do you track and manage the expenditures of the Central Departments?
13. Please provide any other information, issues or ideas that the Study Team should consider as it relates to Legal or Regulatory issues; Employee compensation, Training or retention; or the ability of ARENTO to become more profitable and self-sufficient.

182

6.2.3 PROJECT TEAM AND COUNTERPART ORGANIZATION

The K&M team used a team approach in conducting the examination and assessment and worked closely with an ARENTO counterpart organization that was established at the beginning of the project.

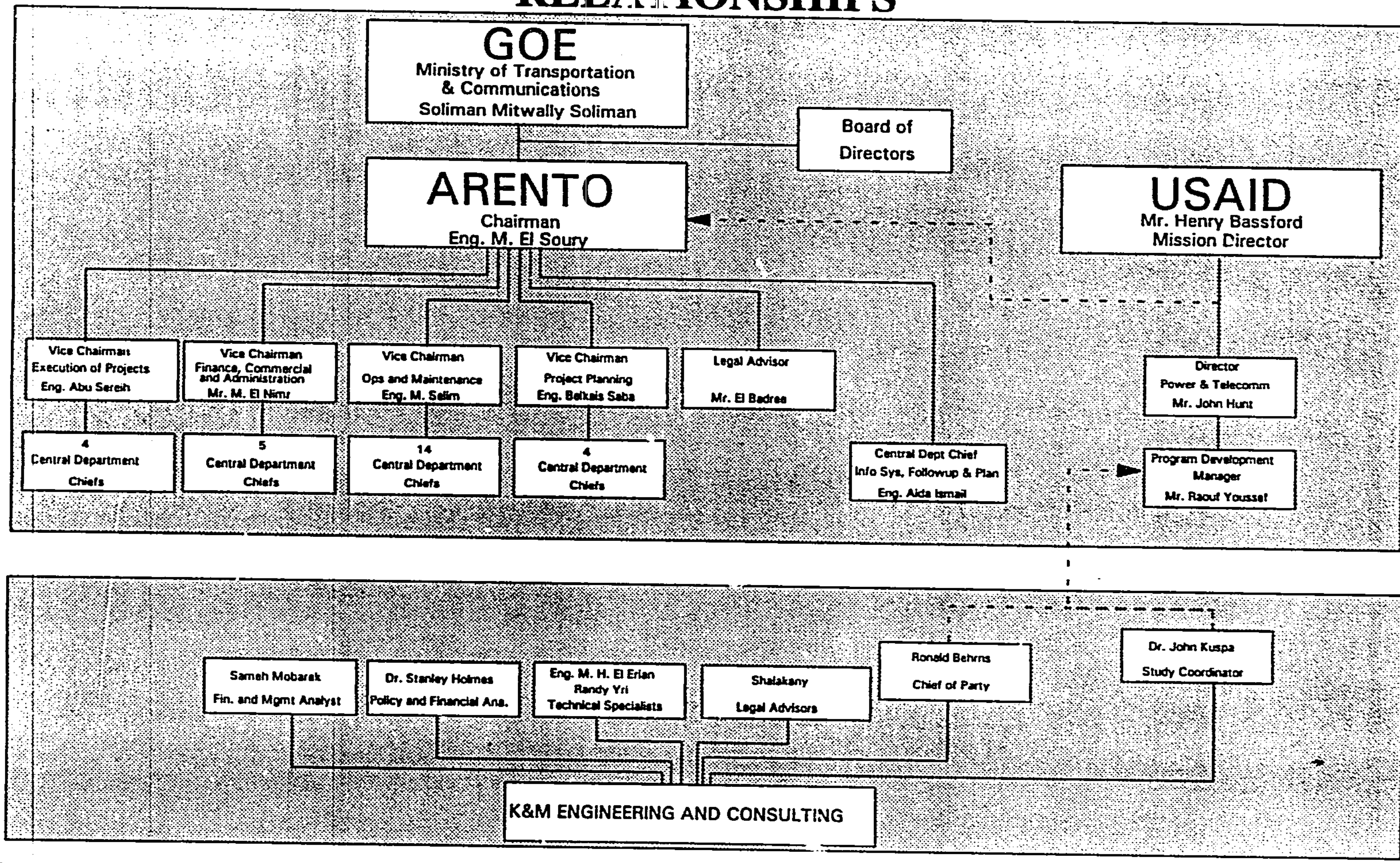
Exhibit 6-3, identifies the K&M team members.

EXHIBIT 6-3
K&M TEAM MEMBERS

Mr. Jose Trujillo	K&M Vice President
Dr. John Kuspa	Study Coordinator
Mr. Ronald Behrns	Project Manager
Dr. Stanley Holmes	Economist
Eng. Randy Yri	Management & Technical Specialist
Dr. Steve Shwiff	Policy Analyst
Mr. Jack Isbel	Policy Analyst
Mr. Sameh Mobarek	Analyst
Eng. Abdel Hafez	Management Specialist
Eng. M. El Erian	Engineering Specialist
Mr. M. Gayed	Financial Specialist
Shalakany Law Office	Legal Council
Ms. Dominique Masse	Administration

Exhibit 6-4, identifies the ARENTO Counterpart Organization that worked closely with the K&M team. It should be noted that ARENTO team members were very cooperative, supportive and without who's help this project could not have been successfully undertaken. ARENTO personnel were always available when needed and patiently, knowledgeably endured our questions.

COUNTERPART ORG[illegible]ONS AND REPORTING RELA[illegible]IONSHIPS



184

6.3 FINDINGS AND CONCLUSIONS

The profitability and self-financing assessment conducted by K&M is not intended to represent an audit of the accounts of ARENTO and the financial information contained herein should not be used in that context.

The accounts of ARENTO are maintained in accordance with the Egyptian Unified Systems of Accounts which is applicable to government entities in general. While the system of accounts is not designed to meet the requirements of the communications authority, ARENTO has implemented sub-accounts to the prescribed system where it was considered necessary and utilizes a system of cost accounts to provide detailed expenses in a format suitable to satisfy their internal management and external reporting requirements to the GOE.

6.3.1 GLOSSARY OF TERMS

Accumulated Depreciation - Depreciation is recorded monthly to recognize the physical deterioration and/or consumption of fixed assets that are utilized in the production of goods or the provisioning of services to produce revenue. The accumulated depreciation account represents the cumulative balance of depreciation of an asset since its acquisition. The accumulated depreciation for an asset should be removed from the accounts when the asset is retired.

Accumulated Provision for Bad Debts - At any point in time, a portion of the accounts receivable of an entity represents amounts which will not be collected, thus becoming bad debts. The entity, however, is not able to identify the specific bad accounts. To account for this, the entity periodically records a provision for bad debts as an expense. The cumulative amount of these provisions is carried in an account entitled Accumulated Provision for Bad Debts.

Acid Test - Is sometimes called the quick ratio and is identical to the current ratio except that the numerator is reduced by the value of inventory. The reason for subtracting inventory is that it frequently is illiquid. The formula for determining the quick ratio can be expressed as follows:

$$\frac{\text{Current Assets - Inventory}}{\text{Current Liabilities}}$$

Average Collection Period - Provides information about a company's accounts receivable management. Results from the equation below can be interpreted either of two ways-it indicates the firm has X days worth of revenues tied up in receivables or the average time lag between the sale and the collection of cash for the sale is X number of days. The average collection period is calculated as follows:

Accounts receivable/revenue per day

Capitalization - consists of the ownership investment in the entity, earnings retained in the business, and long-term debt incurred to provide funds necessary to carry on the business.

<u>Consolidated Financial Statements</u> - The method of presenting financial statements wherein the parent company and its controlled subsidiaries' assets, liabilities, income and expenses are combined and shown in total. Inter-company accounts receivable and payable and income and expense transactions between two or more of the consolidated entities are eliminated in the consolidated financial statements.

<u>Current Ratio</u> - Compares the assets that will turn into cash within the year to the liabilities that must be paid within the year. A company with a low current ratio lacks liquidity in the sense that it cannot reduce its current asset investments to supply cash to meet maturing obligations. It must rely instead on operating income and outside financing. The formula for determining the current ratio can be expressed as follows:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

<u>Equity Method Financial Statements</u> - The method of presenting financial statements wherein the parent company shows its share of the earnings of such subsidiaries as a single line item in its income statement. Under this method, the individual assets and liabilities and the individual components of income and expense of the subsidiaries are not shown in the parent company financial statements.

<u>Fixed Charge Coverage</u> - Measures the financial burden placed on a company by its use of leverage by comparing earnings before interest and taxes to annual interest expense obligations. It is defined as follows:

$$\text{Fixed Charge Coverage} = \frac{\text{Earnings Before Interest \& Taxes}}{\text{Interest Expense}}$$

<u>Imputed Interest</u> - The procedure prescribed within the Egyptian Unified System of Accounts whereby, in addition to interest actually paid, an imputed amount is recorded in the accounts as an operating expense and as non-operating income (having no effect on net income). It is calculated in a manner which assumes that all of the entities assets other than land and buildings, net of all liabilities other than long-term debt, are financed by debt bearing an interest rate equal to that of the Egyptian Central Bank.

<u>Imputed Rent</u> - The procedure prescribed within the Egyptian Unified System of Accounts whereby, in addition to rent actually paid, an imputed amount is recorded in the accounts as an operating expenses and as non-operating income (having no effect on net income). It is intended to reflect operating expenses as if the entity owned no buildings, but paid rent for those buildings which it actually owns.

<u>Inter-company Receivables and Payables</u> - amounts owned by one member of a controlled group of companies to another member of the group.

<u>Internal Cash Generation or Internally Generated Funds (IGF)</u> - Funds provided to an entity through the operation of its business. This is generally calculated by adding back to net income charges for depreciation, additions to reserves and other charges to income which do not involve an expenditure of cash.

Leverage - Is that portion of a firm's capitalization that is financed with debt or stated another way, it is the substitution of debt for equity in a company's capital structure. The most common way to measure leverage is to compare the company's liabilities to their assets. This gives rise to the debt-to-assets ratio and the debt-to-equity ratio, defined as:

$$\text{Debt to Assets Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Equity (Paid in Capital \& Reserves)}}$$

The first ratio indicates the percentage of debt that is used to finance assets. The second ratio says the same thing in a slightly different way: creditors supply X% of capital for each dollar of equity capital provided by the owners.

Liquidity - One determinant of a company's debt capacity is the liquidity of its assets. An asset is liquid if it can be readily converted to cash, while a liability is liquid if it must be repaid in the near future. It is risky to finance illiquid assets like fixed plant and equipment with liquid, short-term liabilities because the liabilities will come due before the assets generate enough cash to pay for them. A company that mismatches the maturity of its assets and liabilities in this manner must roll over, or refinance, maturing liabilities to avoid insolvency. Two common ratios intended to measure the liquidity of a company's assets relative to its liabilities are the current ratio and the acid test (see definitions above).

Return On Equity (ROE)- It is a measure of the efficiency with which the firm employs owners' capital. It measures the percentage return to owners on their investment in the firm, determined as follows:

$$\text{Return on Equity} = \frac{\text{Earnings}}{\text{Owners' Equity}}$$

Return On Investment (ROI)- It is a measure of the efficiency with which the firm manages its total resources. It differs from ROE because ROI measures profit as a percentage of total assets while ROE measure profit as a percentage of owners' equity.

Return On Sales - Reflects the degree of cost control in relationship to the management of the firms' pricing strategy. It is measured as a percent of each dollar of revenue that trickles down through the income statement to net income and is calculated as follows:

$$\text{Return on Sales} = \frac{\text{Net Income}}{\text{Revenue}}$$

Sustainable Growth Rate - Is the maximum rate at which a company's revenue can increase without depleting financial resources. The formula for determining the sustainable growth rate can be expressed as follows:

Retained Profits / Equity

or

Earnings Retention Ratio (Retained Profits/Profits) X Return on Equity

6.3.2. INCOME STATEMENTS-FISCAL YEARS ENDED June 30, 1989 through June 30, 1995

Income statements of ARENTO for the fiscal years ended June 30, 1989 through June 30, 1995 are presented in five exhibits shown on the following pages:

EXHIBIT 6-5
ARENTO
PERCENTAGE INCOME STATEMENT- RATIO ANALYSIS - FISCAL YEARS ENDING 1989 through 1995

	ACTUAL					PROJECTED	
(LE in millions)	88/89	89/90	90/91	91/92	92/93	93/94	94/95
Revenues (Note 6)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Expenses							
Wages and Salaries	13.97%	11.79%	11.65%	10.38%	11.49%	12.51%	12.78%
Materials and Services	5.92%	5.39%	5.75%	6.29%	8.40%	9.44%	11.71%
Depreciation	18.88%	16.26%	15.12%	13.93%	14.12%	15.15%	15.08%
Other	15.87%	11.37%	12.76%	11.79%	11.89%	13.83%	12.88%
Total Expenses (Note 6)	**54.64%**	**44.82%**	**45.28%**	**42.39%**	**45.91%**	**50.93%**	**52.45%**
EBIT	45.36%	55.18%	54.72%	57.61%	54.09%	49.07%	47.55%
Interest Expense (Note 1)	17.88%	12.97%	11.73%	9.96%	10.92%	9.93%	8.28%
Net Before Taxes	27.49%	42.21%	42.99%	47.65%	43.17%	39.13%	39.26%
Taxes (Note 2)	8.80%	13.51%	13.76%	15.25%	13.81%	12.52%	12.56%
Net Operating Income (Surplus)	18.69%	28.70%	29.24%	32.40%	29.35%	26.61%	26.70%
Transfers:							
Minister of Finance (Note 3)	1.79%	5.05%	7.37%	6.11%	5.72%	5.49%	5.11%
Metro (Notes 4&5)	0.00%	0.00%	5.24%	13.38%	16.75%	21.95%	15.34%
Total Transfers	**1.79%**	**5.05%**	**12.61%**	**19.49%**	**22.47%**	**27.44%**	**20.45%**
Taxes	0.56%	1.60%	4.06%	6.23%	7.20%	8.78%	6.54%
Net Transfers	1.23%	3.45%	8.55%	13.26%	15.27%	18.66%	13.91%
Net Carried Over Surplus	**17.46%**	**25.25%**	**20.68%**	**19.14%**	**14.09%**	**7.95%**	**12.79%**

Note 1-Includes local and foreign interest expense; foreign interest expense represents approx. 92% of the total and is subject to exchange rate fluctuations.

Note 2-ARENTO currently pays no income tax; however, the GOE has assessed income taxes retro-active to 1982. Effective rate is 32%.

Note 3-The Ministry of Finance has indicated that transfers of LE200 million per year may be required for fiscal years after 1995.

Note 4-The agreement to transfer LE300 million a year to the Metro will end in fiscal year 96/97. No information was available regarding future plans.

Note 5-The transfer payment in 93/94 was increased LE100 million above the original agreement amount of LE300 million.

Note 6-Imputed interest and rent revenues and expenses have been eliminated with no effect on net income (surplus).

EXHIBIT 6-6
ARENTO
INCOME STATEMENTS-Actual and Projected-FY's 1989-1995

(LE in millions)	ACTUAL					PROJECTED	
	88/89	89/90	90/91	91/92	92/93	93/94	94/95
Revenues (Note 6)	895	1,187	1,356	1,637	1,749	1,822	1,956
Expenses							
Wages and Salaries	125	140	158	170	201	228	250
Materials and Services	53	64	78	103	147	172	229
Depreciation	169	193	205	228	247	276	295
Other	142	135	173	193	208	252	252
Total Expenses (Note 6)	489	532	614	694	803	928	1,026
EBIT	406	655	742	943	946	894	930
Interest Expense (Note 1)	160	154	159	163	191	181	162
Net Before Taxes	246	501	583	780	755	713	768
Taxes (Note 2)	79	160	187	250	242	228	246
Net Operating Income (Surplus)	167	341	396	530	513	485	522
Transfers:							
Minister of Finance (Note 3)	16	60	100	100	100	100	100
Metro (Notes 4&5)	0	0	71	219	293	400	300
Total Transfers	16	60	171	319	393	500	400
Taxes	5	19	55	102	126	160	128
Net Transfers	11	41	116	217	267	340	272
Net Carried Over Surplus	156	300	280	313	246	145	250

Note 1-Includes local and foreign interest expense; foreign interest expense represents approx. 92% of the total and is subject to exchange rate fluctuations.
Note 2-ARENTO currently pays no income tax; however, the GOE has assessed income taxes retro-active to 1982. Effective rate is 32%.
Note 3-The Ministry of Finance has indicated that transfers of LE200 million per year may be required for fiscal years after 1995.
Note 4-The agreement to transfer LE300 million/year to the Metro will end in FY 96/97. No information was available regarding future plans.
Note 5-The transfer payment in 93/94 was increased LE100 million above the original agreement amount of LE300 million.
Note 6-Imputed interest and rent revenues and expenses have been eliminated with no effect on net income (surplus).

EXHIBIT 6-7
ARENTO
STATEMENT OF CURRENT OPERATION ACCOUNT

CODE NO.	OPERATING REVENUES	1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
417	SOLD SERVICES					
	TELEGRAPH REVENUES	12,344,577	12,501,961	13,505,720	15,398,131	15,143,121
	TELEPHONE REVENUES	279,211,369	366,668,487	440,179,874	528,529,979	644,263,703
	INTERNATIONAL REVENUES	493,128,452	601,178,441	703,656,295	919,429,211	991,644,890
	SUB-TOTAL	784,684,398	98,034,889	1,157,341,889	1,463,357,321	1,651,051,714
416	RECEIPTS OF WORK DONE FOR OTHERS	1,877,528	579,062	1,279,727	2,391,924	3,148,433
418	GOODS FOR SALE	13,005,050	15,633,261	20,306,833	23,543,860	26,500,448
	GRAND TOTAL	799,566,976	996,561,212	1,178,928,449	1,489,293,105	1,680,700,595
	OPERATING EXPENSES					
311	CASH SALARIES	106,962,907	119,611,278	131,534,230	141,189,851	163,446,523
312	SALARIES IN KIND	1,963,006	2,420,586	3,049,239	3,769,478	8,346,269
314	SOCIAL INSURANCE	19,562,312	21,973,745	24,428,283	26,095,699	33,439,654
	SUB-TOTAL	128,488,225	144,005,609	159,011,752	171,055,028	205,232,446
	LESS SALARIES ASSIGNED TO CHAPTER 3	3,477,300	3,638,325	1,457,944	1,519,068	3,817,476
	SUB-TOTAL	125,010,925	140,367,284	157,553,808	169,535,960	201,414,970
	GENERAL EXPENSES					
32	COMMODITIES	21,201,104	27,152,875	322,467,757	46,535,080	61,125,919
33	SERVICES	19,520,215	21,927,722	28,390,852	31,829,147	53,998,406
34	GOODS FOR SALE	12,727,549	15,051,458	17,528,782	24,554,920	31,620,481
	SUB-TOTAL	53,448,868	64,132,055	78,166,391	102,919,147	14,674,806
	CURRENT TRANSFER EXPENSES					
3514	TAXES AND DUTIES	485,474	829,320	821,532	764,042	622,465

EXHIBIT 6-7

CODE NO.		1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
	DEPRECIATION					
3522	BUILDING & CONSTRUCTIONS	43,579,252	50,264,863	56,743,820	62,655,132	70,370,664
3523	MACHINERY & EQUIPMENT	85,177,649	99,705,708	115,834,417	146,686,813	164,968,952
3524	TRANSPORTATION	3,081,678	2,513,447	2,511,486	2,152,917	2,160,403
3525	TOOLS & MACHINERY	592,485	4,561,027	2,840,957	3,839,818	2,756,989
3526	FURNITURE & OFFICE EQUIPMENT	2,858,996	2,975,992	3,728,939	4,127,008	4,614,655
3528	DEFERRED REVENUE EXPENDITURES	33,214,592	32,810,720	23,573,997	8,211,938	2,478,878
	SUB-TOTAL	168,504,652	192,831,757	205,233,616	2,276,763,626	247,350,541
	RENT					
353	ACTUAL RENT	139,236	147,435	157,729	153,340	172,161
354	DIFFERENCE OF CALCULATED RENT	4,548,616	4,748,478	4,673,803	8,933,114	9,671,703
	SUB-TOTAL	4,687,852	4,895,913	4,831,532	9,086,454	9,843,864
	TOTAL OPERATING EXPENSES (EXCEPT INTERESTS)	352,137,771	403,056,329	446,606,879	509,979,229	605,976,646
	TOTAL REVENUES (BEFORE EXPENSES)	447,429,205	593,504,883	732,321,570	979,313,876	1,074,723,949
	INTEREST					
355	LOCAL	22,540,062	23,622,440	20,751,649	18,634,244	15,646,857
356	FOREIGN	137,725,394	129,961,138	138,251,415	144,211,440	174,931,152
357	DIFFERENCE IN CALCULATED INTERESTS	0	4,878,569	45,907,927	106,223,994	806,612,429
	SUB-TOTAL	160,265,456	158,462,147	204,910,991	269,069,678	997,190,438
	INCOME FROM OPERATIONS(SURPLUS)	287,163,749	435,042,736	527,410,579	710,244,198	77,533,511
	NON-OPERATIONS INCOME:					
	CURRENT EARMARKED REVENUES					
43	RECEIPTS FROM SECURITIES		0	0	0	2,739,929
441	CREDIT INTEREST	5,644,895	8,628,770	10,828,124	11,576,782	8,875,785
442	CREDIT RENT	18,476	19,159	18,773	20,217	21,186
443	CAPITAL GAINS	704,139	1,259,775	0	0	0
444	REVENUES OF PREVIOUS YEARS	80,706,478	162,995,931	134,956,616	116,924,603	19,609,018
445	COMPENSATIONS AND FINES	1,108,571	(179,080)	886,170	1,354,459	5,270,454
446	MISCELLANEOUS REVENUES	7,109,842	17,591,498	30,524,219	17,979,626	31,939,363
447	DIFFERENCE IN CALCULATED RENT	4,548,616	4,748,478	4,673,803	8,933,114	9,671,703
448	DIFFERENCE IN CALCULATED INTERESTS	0	4,878,569	45,907,927	106,223,994	806,612,429
	TOTAL	99,841,017	199,943,100	227,795,632	263,012,795	884,739,867

EXHIBIT 6-7

CODE NO.		1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
	CURRENT EARMARKED EXPENSES					
361	DONATIONS	61,710	65,787	67,545	72,993	8,134
362	CHANGES IN PRICES OF HARD CURRENCY	102,522,075	123,299,662	156,319,692	167,282,546	188,460,462
363	COMPENSATIONS AND FINES	154	3,600	757	22,830	11,554
364	CAPITAL LOSSES	11,043	0	0	0	771,007
365	PREVIOUS YEARS EXPENSES	11,282,654	9,858,835	15,834,686	25,215,479	16,116,549
366	DEBTS BAD					251
367	PROVISIONS EXCEPT DEPRECIATION	27,238,044	702,550	0	0	1,521,661
	MINISTRY OF FINANCE	16,000,000	60,000,000	100,000,000	100,000,000	100,000,000
	NATIONAL SUBWAYS ORGANIZATION(METRO)	0	0	70,535,198	219,323,780	293,119,475
	TOTAL	157,115,680	193,930,434	342,757,878	511,917,628	600,082,343
	CARRIED OVER SURPLUS	229,889,086	441,055,402	412,448,333	461,339,365	362,191,035

EXHIBIT 6-8
ARENTO
OPERATING PLANS - FY's ENDING 1994 and 1995
OPERATION REVENUES
Page 1 of 4

Page 1 of 4

(LE in thousands)	93/94 APPROVED OPERATING PLAN	94/95 BUDGET AS APPROVED BY B OF D	CHANGES MADE BY MINISTRY OF FINANCE	INTERIM BUDGET AS APPROVED BY MINISTRY OF FINANCE
SOLD SERVICES				
Telegraph Revenues	17,500	15,000		15,000
Telephone Revenues	640,000	761,000	9,000	770,000
International Revenues	950,000	958,000	42,000	1,000,000
Receipts of Work Done for Others	3,500	4,000		4,000
Goods for Sale	54,000	52,000		52,000
SUB-TOTAL	1,665,000	1,790,000	51,000	1,841,000
Receipts from Securities	1,581	3,000		3,000
CURRENT EARMARKED REVENUES				
Credit Interest	11,419	4,000		4,000
Credit Rent	19	20		20
Revenues of Previous Years	75,000	20,500	5,000	25,000
Compensations & Fines	900	2,500	2,500	5,000
Miscellaneous Revenues	68,081	13,480	64,500	77,980
Difference in Calculated Rent	10,000	10,000		10,000
Difference in Calculated Interest	600,000	834,000		834,000
SUB-TOTAL	765,419	884,500	72,000	956,000
TOTAL REVENUES	2,432,000	2,677,500	123,000	2,800,000

EXHIBIT 6-8
ARENTO
OPERATING PLANS - FY's ENDING 1994 and 1995
OPERATION EXPENSES (Page 2 of 4)

(LE in thousands)	93/94 APPROVED OPERATING PLAN	94/95 BUDGET AS APPROVED BY B OF D	94/95 CHANGES MADE BY MINISTRY OF FINANCE	94/95 INTERIM BUDGET AS APPROVED BY MINISTRY OF FINANCE
Cash Salaries	181,935	221,844		
Salaries In Kind	13,789	18,239		
Social Insurance	37,553	45,255		
Less Salaries Assigned to other Ministries	(5,277)	-5,278		
SUB-TOTAL	228,000	280,060	-30,060*	250,000
Commodities	70,000	100,000		100,000
Services	48000	77,000		77,000
Goods for Sale	54000	52,000		52,000
SUB-TOTAL	172,000	229,000		229,000
Taxes & Duties	1,200	1,200		1,200
Depreciations	276,000	295,000		295,000
Actual Rent	200	200		200
Difference of Calculated Rent	10,000	10,000		10,000
Difference of Calculated Interests	600,000	834,000		834,000
Local Interest	14,059	12,000		12,000
Foreign Interest	166,441	150,000		150,000
Others - Funds	51,800	0	50,000	50,000
SUB-TOTAL	1,119,700	1,302,400	50,000	1,352,400

*Bonus		48,207	-19,207	29,000
Expense Allowance		31,243	-1,243	30,000
Other:				
Base Wage Changes			-5,000	
Food			-2,456	
Clothes			-1,600	
Retirement Bonus			-500	
New Organization (pending approved by The Central Agency for Organization & Administration)			-54	
TOTAL ADJUSTMENTS			-30,060	

EXHIBIT 6-8
ARENTO
OPERATING PLANS - FY's ENDING 1994 and 1995
OPERATION EXPENSES (Page 3 of 4)

	93/94	94/95		
(LE in thousands)	APPROVED OPERATING PLAN	BUDGET AS APPROVED BY B OF D	CHANGES MADE BY MINISTRY OF FINANCE	INTERIM BUDGET AS APPROVED BY MINISTRY OF FINANCE
Donations	95	95		95
Changes in Prices of Hard Currency	172,000	174,000		174,000
Compensations & Fines	5	15	-10	5
Previous Years Expenses	25,200	25,000		25,000
Provisions Except Depreciation	2,000	2,000		2,000
Ministry of Finance	100,000	0	100,000	100,000
Metro	300,000	300,000		300,000
SUB-TOTAL	599,300	501,110	99,990	601,100
TOTAL EXPENSES	2,119,000	2,312,570	119,930	2,432,500

SUMMARY

TOTAL REVENUES	2,432,000	2,677,000	123,000	2,800,000
TOTAL EXPENSES	2,119,000	2,312,570	119,930	2,432,500
NET INCOME	313,000	364,430	3,070	367,500

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OPERATING PLA S - Y's NDING 1994 and 1995
CAPITAL EXPENDITURES - PROJECTS (Page 4 of 4)

(LE in thousands)	APPROVED PLAN	APPROVED BY B OF D 94/95	PENDING APPROVAL BY MINISTRY OF PLANNING
PROJECTS	271,885	837,700	
FUNDING SOURCES FOR PROJECTS			
Self Finance - IGF	260,000	342,878	
Local Loans		367,822	
Foreign Loans	11,885	127,000	
Total Funding	271,885	837,700	

RE - PAYMENT OF LOANS

Local Loans	28,770	23,552	
Foreign Loans	131,000	165,000	
TOTAL	159,770	188,552	

EXHIBIT 6-9
STATEMENT OF CURRENT OPERATIONS

FISCAL YEARS 92/93 - 96/97

(LE in thousands)

YEAR	92/93	93/94	94/95	95/96	96/97
REVENUES					
Telegraph Revenues	15,566	16,300	17,000	18,000	18,800
Telephone Revenues	582,600	640,000	704,000	775,000	852,000
international Revenues	878,182	922,000	1,014,000	1,116,000	1,227,000
Miscellaneous	61,203	86,000	91,000	94,000	98,000
TOTAL REVENUES	1,537,551	1,664,000	1,826,000	2,003,000	2,195,800
EXPENSES:					
Salaries	195,000	234,000	280,000	337,000	404,000
Commodities	54,726	63,000	73,000	84,000	97,000
Services	33,000	36,000	40,000	44,000	48,000
Goods for Sale	28,000	54,000	59,000	65,000	72,000
Interest	173,156	180,500	187,000	194,000	201,000
Changes in Price of Hard Currency	166,000	172,000	178,000	184,000	190,000
Depreciation	260,000	276,000	292,000	310,000	329,000
Other	103,305	3,000	3,000	3,000	3,000
TOTAL EXPENSES	1,013,187	1,018,500	1,112,000	1,221,000	1,344,000
Carried over surplus	524,364	645,800	714,000	782,000	851,800

EXHIBIT 6-10
ARENTO REVENUE HISTORY
FY's Ending 1992-1993

(LE in thousands)	91/92		92/93		CHANGE			
	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	% CHANGE	QUANTITY	% CHANGE
LOCAL SERVICE								
Telegraph	6,782	12,907,828	6,799	12,597,935	17	.25%	-309,893	-2.40%
Telex	8,536	6,014	8,224	5,864	-312	-3.66%	-150	-2.49%
Contribution Telephone	145,148	2,027,680	162,649	2,234,715	17,501	12.06%	207,035	10.21%
Local Calls	114,113	2,282,254,770	151,826	3,036,512,500	37,713	33.05%	754,257,730	33.05%
Trunk	121,323	210,715,000	174,913	245,600,000	53,590	44.17%	34,885,000	16.56%
Administrative Fees	2,096	——	——	——	-2,096	-100.00%	——	——
Transfer Telephone	4,003	26,907	4,880	34,159	877	21.91%	7,252	26.95%
Installation Telephone	84,121	224,707	90,099	223,056	5,978	7.11%	-1,651	-.73%
MISCELLANEOUS								
Telephone	57,726	——	59,897	——	2,171	3.76%	——	——
Telegraph	80	——	120	——	40	50.00%	——	——
Goods for Sale	23,544	——	26,500	——	2,956	12.56%	——	——
Work for Others	2,392	——	3,148	——	756	31.61%	——	——
SUB-TOTAL	569,864	——	689,055	——	119,191	20.92%	——	——
INTERNATIONAL								
Telegraph	2,905	30,126,000	2,264	30,416,000	-641	-22.07%	290,000	0.96%
Telex	44,434	13,219,000	35,600	10,993,000	-8,834	-19.88%	-2,226,000	-16.84%
Telephone	809,954	313,027,000	882,341	355,090,000	72,387	8.94%	42,063,000	13.44%
Call Sign	5,760	——	5,301	——	-459	-7.97%	——	——
Car Telephone	20,060	5,288	30,583	7,054	10,523	52.46%	1,766	33.40%
Leased Circuits	12,904	99	16,730	102	3,826	29.65%	3	3.03%
License	9,973	——	7,066	——	-2,907	-29.15%	——	——
Television Program	8,189	1,825	4,462	1,537	-3,727	-45.51%	-288	-15.78%
Data-Service	2,765	——	4,774	——	2,009	72.66%	——	——
Follow Me	2,485	4,640	2,524	5,593	39	1.57%	953	20.54%
SUB-TOTAL	919,429	——	991,645	——	72,216	7.85%	——	——

Exhibit 6-10
ARENTO REVENUE HISTORY
FY's Ending 1992-1993

(LE in thousands)	91/92		92/93		CHANGE			
	AMOUNT	**QUANTITY**	**AMOUNT**	**QUANTITY**	**AMOUNT**	**% CHANGE**	**QUANTITY**	**% CHANGE**
Revenues from Companies	------	------	2,740	------	2,740	100%	------	------
CURRENT TRANS. REV.								
Rent	20	------	21	------	1	5.00%	------	------
Compensations & Fines	1,354	------	5,271	------	3,917	289.29%	------	------
Credit Interest	11,577	------	8,876	------	-2,701	-23.33%	------	------
Revenues of Previous Year	116,925	------	19,609	------	-97,316	-83.23%	------	------
Account rent	8,933	------	9,672	------	739	8.27%	------	------
Account Interest	106,224	------	806,612	------	700,388	659.35%	------	------
Miscellaneous	17,980	------	31,939	------	13,959	77.64%	------	------
SUB-TOTAL	263,013	------	884,740	------	621,727	236.39%		
GRAND TOTAL	1,752,306	------	2,565440	------	813,134	46.40%		

EXHIBIT 6-11
ARENTO
PROPOSED TARIFF CHANGE OPTIONS/ALTERNATIVES

	Current	Proposed	Change
Year 1 (1994/1995)			
A. Increase Unit Call Prices			
1-6 minutes call duration increment throughout Egypt where there are multiple exchanges within a zone	5p	10p	5p
1 - Unlimited call duration increment throughout Egypt where there is a single exchange within a zone	5p	10p	5p
B. Reduce "free call allowance"			
Residence			
Annually	1500	----	
Semi Annual	-----	600	
Quarter*	-----	300	
Monthly*	-----	100	
Net Change	-----		(300)
Business			
Annually	300	----	
Semi Annual	-----	120	
Quarter*	-----	60	
Monthly*	-----	20	
Net Change			(60)
Government			
Annually	1000	----	
Semi Annual	-----	420	
Quarter*	-----	210	
Monthly*	-----	70	
Net change			(160)
C. Increase Coin Telephone Changes	10p	25p	15p
Year 2 (1995/1996)			
Increase Subscription Fees			
Residence	45	60	15
Business	75	120	45
Government	75	120	45

* Applying the quarterly and monthly "free call allowance" is dependent upon installation of a new billing and collection data processing system.

EXHIBIT 6-12
ARENTO
ASSESSED TAX LIABILITY - FY's 1982 through 1993
LAW 157/1981 - TAXES FROM PROFIT OF CAPITAL COMPANIES
(LE in thousands)

YEAR	NET SURPLUS	TAXES (40%)	CUMULATIVE LIABILITY
81/82	25,712	10,284	
82/83	48,043	19,172	29,456
83/84	74,985	29,994	59,450
84/85	91,125	36,450	95,900
85/86	115,068	46,027	141,927
86/87	147,386	58,954	200,881
87/88	192,433	76,973	277,854
88/89	273,633	109,453	387,307
89/90	492,552	197,021	584,328
90/91	481,204	192,481	776,809
91/92	550,175	220,070	996,879
92/93	450,191	180,076	1,176,955
TOTAL	2,942,507	1,176,955	4,727,746

Under ARENTO's interpretation of Public Law # 153 they have not paid GOE income taxes. However, the GOE has assessed income taxes on ARENTO's net income retroactive to 1981/1982.

This assessment has been contested in court and a judgment was reached against ARENTO, however the decision has been appealed. In the event the appeal is not successful, ARENTO has a cumulative tax liability through June 30, 1993 of approximately LE. 1.2 Billion.

EXHIBIT 6-13
ACTUAL AND PROJECTED PAYMENTS TO THE GOVERNMENT
(LE in thousands)

YEAR	MINISTRY OF FINANCE	METRO**	TOTAL	CHANGE	% CHANGE
Actual					
86/87	37,668		37,668		
87/88	6,327		6,327	(31,341)	
88/89	16,000		16,000	9,673	153%
89/90	60,000		60,000	44,000	275%
90/91	100,000	70,535	170,535	110,535	184%
91/92	100,000	219,324	319,324	148,789	87%
92/93	100,000	293,119	393,119	73,795	23%
TOTAL	419,995	582,978	1,002,973		
Projected					
93/94	100,000	400,000***	500,000	106,881	27%
94/95	200,000*	300,000	500,000	100,000	25%

* Ministry of Finance has requested a 100% annual increase beginning in 94/95

** original agreement between ARENTO and Metro will terminate at the end of 96/97 which was to pay LE 300,000 for five years.

*** ARENTO has been requested to pay an additional LE 100,000 for 93/94.

EXHIBIT 6-14
ARENTO
CASH TRANSFERS (DIVIDENDS) PAID TO OTHER MINISTRIES
FISCAL YEARS 92/93 and 93/94

(LE in Thousands)

MONTH	MINISTRY OF FINANCE	METRO
92/93		
Jul-92		
Aug-92		33,143
Sep-92	5,700	10,000
Oct-92	7,600	20,000
Nov-92		43,191
Dec-92	4,800	19,952
Jan-93	5,900	20,030
Feb-93	9,000	33,393
Mar-93	8,800	40,060
Apr-93	11,200	16,664
May-93	3,300	16,701
Jun-93	11,900	20,000
SUBTOTAL	**68,200**	**273,134**
Jul-93	4,500	
Aug-93	21,900	15,099
Sep-93	5,400	4,886
SUBTOTAL	**31,800**	**19,985**
TOTAL	**100,000**	**293,119**
CURRENCY PAID		
LE	100,000	160,000
$		40,000
93/94		
Jul-93		
Aug-93		
Sep-93	7,000	16,746
Oct-93	3,700	15,000
Nov-93	8,000	
Dec-93	15,900	26,746
Jan-94	7,600	41,746
SUBTOTAL	**42,200**	**100,238**
Est. Feb-94 to Jun-94	57,800	299,762
TOTAL	**100,000**	**400,000**
CURRENCY PAID		
LE	100,000	200,000
$		60,000

Comments related to K&M's assessment of revenues, expenses, interest coverage, taxes and profitability are presented in the subsequent following sections.

6.3.2.1 Assessment of Revenues

- ARENTO revenue figures shown in Exhibits 6-7 through 6-9 have been adjusted by the consultant and the adjusted revenues are shown in Exhibits 6-5 and 6-6. The adjustments were made to exclude imputed rent and interest revenues which have no effect on net income. Assessment of revenues without excluding imputed rent and interest revenues, distorts any meaningful comparison of year to year changes. Exhibit 6-10, "ARENTO Revenue History for FY's Ending 1989 through 1993", indicates that revenues have increased 46% between 1992 and 1993, however upon further analysis, most of that change was due to an increase in imputed interest revenue. After excluding rent and interest revenues, actual revenue growth between 1992 and 1993 was 7%; projected revenue growth for 1994 is 4%; and for 1995, revenue is projected to increase 7%. Based on historical revenue growth and general economic conditions in Egypt, the projected revenues for 1994 are most likely understated as are the projected 1995 revenues. It should be noted that possible tariff adjustments as suggested in the Cost of Service/Rate Tariff Study completed in 1993 (see Exhibit 6-11) by K&M Engineering and Consulting Corporation have not been included in the 1994-1995 projected revenues. The consultants were advised that no formal plans exist to adjust tariffs during the 1994-1995 time frame.

6.3.2.2 Assessment of Operating Expenses

ARENTO operating expense figures shown in Exhibits 6-7 through 6-9 have been adjusted by the consultant and the adjusted operating expenses are shown in Exhibits 6-5 and 6-6. The adjustments were made to exclude imputed rent and interest expenses which have no effect on net income. After excluding rent and interest expenses, actual operating expense growth between 1992 and 1993 was LE 109 million or 16%; projected operating expense growth for 1994 is LE 125 million or 16%; and for 1995, operating expenses are projected to increase LE 99 million or 11%. Based on historical operating expense growth and general economic conditions in Egypt, the projected operating expenses for 1994 appear reasonable and achievable. Projected 1995 operating expenses are most likely understated by LE 46 million or 5%.

6.3.2.3 Assessment of Interest Expense

ARENTO interest expense for the years 1985 through 1995 are shown in Exhibits 6-7 through 6-9. Actual interest expense for 1993 increased LE 28 million or 17% over 1992 reflecting higher interest costs and higher debt levels. Interest expense for 1994 is projected to decrease LE 10 million or 5%; for 1995, interest expense is projected to decrease LE 19 million or 11%. Based on slightly decreasing interest rate trends in Europe and slightly increasing trends in the United States, the projected decreases in interest expense are most likely optimistic and not entirely achievable.

6.3.2.4 Assessment of National Income Taxes

ARENTO income statements shown in Exhibits 6-7 through 6-9 have been adjusted by the consultant and are shown in Exhibits 6-5 and 6-6. Adjustments were made to include national income tax expense as shown in Exhibit 6-12 - ARENTO Assessed Tax Liability-FY's 1982 through 1993. Assessment of profitability without including national income tax would materially understate expenses and overstate net profit (surplus before transfers) for the period. The GOE has determined that ARENTO is a capital company and as such must pay income taxes. A LE 1.2 billion tax liability has been assessed against ARENTO retro-active to 1981. National income tax rates are 40% of income after excluding a 20% exemption for project spending. This yields an effective tax rate of 32%. The consultants were advised that for tax purposes, transfers (dividends) are deductible in calculating the tax liability. Consequently, transfers have been calculated net of tax.

6.3.2.5 Assessment of Profitability

ARENTO's "carried over surplus" (net income) figures shown in Exhibits 6-7 through 6-9 have been adjusted by the consultants and the adjusted "net operating income" is shown in Exhibits 6-5 and 6-6. Adjustments have been made to: (A) reduce profitability by including national tax expense as explained above at 6.3.2.4; and, (B) to increase net operating income by excluding transfer payments. Transfers for analysis purposes are considered "non-operating" and have been evaluated as the payment of dividends to the equity holders - the GOE.

ARENTO income statements have historically included transfers to other ministries as an expense item, thus reducing carried over surplus (net income). Under international accounting standards, such transfers constitute, in effect, dividends (or a return of paid-in capital), which are appropriately accounted for as a charge against retained earnings and, thus, are not intended to have any impact on the measurement of net income or profitability. Additionally, under Public Law 153, ARENTO is authorized to retain "carried over surplus" for funding construction programs. Charging the transfers against "carried over surplus" would then also appear to be in conflict with provisions of Public Law 153 and generally accepted accounting principles. Consequently, the consultants, have removed transfers from the assessment of profitability and have included transfers in the assessment of dividends that follows below at 6.3.2.6. In either case, the income statements as presented do report transfers as a reduction of "carried over surplus", as reported by ARENTO in using the Egyptian Unified System of Accounts.

After excluding transfers (dividends) and after including national income tax expense, actual "Net Operating Income" declined between 1992 and 1993 by LE 15 million or 3%; projected "Net Operating Income" will decline further in 1994 by LE 26 million or 6%; however, for 1995, "Net Operating Income" is projected to increase LE 37 million or 8%. Based on the above assessment of revenues and expenses, where it appears revenues are growing at a slower rate than expenses, it is most likely the projected increase in profitability in 1995 is optimistic and will not be achieved.

6.3.2.6 Assessment of Transfers (Dividends)

Transfers (dividends) have been grouped together and include the following individual items:

- Payments to the Ministry of Finance
- Payments to the Metro

Specific detailed amounts for each individual item are shown in Exhibits 6-7 through 6-9 and are grouped together in Exhibits 6-5 and 6-6.

Actual transfer (dividends) payouts increased LE 74 million or 23% between 1992 and 1993; 1994 transfer (dividends) payouts are projected to increase LE 107 million or 27%; and, 1995 transfer (dividends) payouts are projected to decrease LE 100 million or 20%. Based on the historical growth in transfer payments as shown in Exhibit 6-13-"ARENTO-Actual And Projected Transfer (Dividends) Payments-1987 through 1995" and Exhibit 6-14 - "ARENTO-Cash Transfers (Dividends) Paid-Fiscal Years 1993 And 1994", it appears most likely these transfers (dividends) will be paid out for the fiscal years 1994 and 1995 as scheduled.

6.3.3 BALANCE SHEETS-FISCAL YEARS ENDED June 30, 1989 through June 30, 1995

Balance Sheets of ARENTO for the fiscal years ended June 30, 1989 through June 30, 1995 are presented in five exhibits shown on the following pages:

EXHIBIT 6-15
ARENTO
PERCENTAGE BALANCE SHEET-Actual and Proforma-FY's 1989-1995

LE in millions	1989	1990	1991	1992	1993	1994	1995
			ACTUAL			PROFORMA	
ASSETS							
Telephone Plant:							
Telephone Plant In Service	94.94%	95.01%	92.65%	71.05%	74.84%	78.49%	81.91%
Less:Accumulated Depre	21.20%	23.21%	22.30%	16.45%	18.24%	20.15%	21.88%
Net Tele Plant In Service	73.73%	71.81%	70.35%	54.60%	56.60%	58.34%	60.03%
Tele Plt Under Construction	11.98%	10.68%	10.01%	8.80%	11.34%	11.85%	12.21%
Crrncy Trnsltn (Note1)	0.00%	0.00%	0.00%	22.72%	20.80%	19.22%	17.77%
Total Telephone Plant (Note 3)	**85.71%**	**82.49%**	**80.35%**	**86.11%**	**88.75%**	**89.41%**	**90.01%**
Equity In Subsidiaries	0.29%	0.30%	0.47%	1.04%	1.12%	1.03%	0.95%
Current Assets:							
Cash and Equivalents	7.30%	6.41%	5.93%	3.27%	1.07%	0.99%	0.92%
Accounts Receivable	4.23%	5.89%	9.71%	5.47%	6.39%	5.90%	5.46%
Less:Uncollectable Rcs	0.70%	0.63%	0.57%	0.36%	0.36%	0.33%	0.31%
Accounts Receivable (Net)	3.52%	5.26%	9.15%	5.11%	6.03%	5.57%	5.15%
Inventories	1.89%	2.14%	1.75%	1.39%	1.45%	1.53%	1.61%
Prepd Exp and Other Rec	1.28%	3.40%	2.36%	3.07%	1.59%	1.47%	1.36%
Total Current Assets	14.00%	17.21%	19.18%	12.85%	10.14%	9.56%	9.03%
TOTAL ASSETS	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
CAPITAL and LIABILITIES							
Capital and Reserves:							
Paid-In Capital	4.45%	3.81%	3.42%	2.26%	2.07%	1.91%	1.77%
Reserves, Grants and Other	13.10%	13.92%	15.61%	12.10%	12.60%	11.65%	10.77%
Adjust-Tax Liability (Note 2)	-20.50%	-21.40%	-22.45%	-16.79%	-17.05%	-16.67%	-16.87%
Retained Earnings(Surplus)	25.08%	33.51%	40.20%	33.16%	35.62%	35.77%	37.62%
Total Capital and Reserves	**22.13%**	**29.84%**	**36.78%**	**30.74%**	**33.24%**	**32.66%**	**33.29%**
Long Term Debt:							
Foreign	31.55%	27.78%	23.92%	19.21%	17.90%	16.41%	14.70%
Crrncy Trnsltn (Note1)	0.00%	0.00%	0.00%	22.72%	20.80%	19.22%	17.77%
Total Foreign Lng Trm Debt	31.55%	27.78%	23.92%	41.92%	38.70%	35.64%	32.47%
Domestic	8.55%	6.25%	4.70%	2.55%	1.97%	1.43%	1.04%
Total Long Term Debt	**40.10%**	**34.03%**	**28.62%**	**44.47%**	**40.67%**	**37.07%**	**33.51%**
Current Liabilities:							
Foreign-Current Maturities	4.52%	3.67%	3.27%	1.91%	1.78%	1.75%	2.04%
Domestic-Current Maturities	1.06%	0.99%	0.89%	0.52%	0.42%	0.39%	0.30%
Tax Liability (Note 2)	20.50%	21.40%	22.45%	16.79%	17.05%	16.67%	16.87%
Suppliers, Accrued and Other	11.69%	10.08%	7.99%	5.57%	6.84%	11.46%	14.00%
Total Current Liabilities	**37.76%**	**36.14%**	**34.60%**	**24.79%**	**26.09%**	**30.27%**	**33.20%**
Total Capital & Liabilities	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Note 1 Exchange rate changes not recorded on the books of ARENTO are included herein in telephone plant and long term liabilities.
Note 2 Tax liabilities not recorded on the books of ARENTO are included herein. The GOE assessment of taxes has been contested by ARENTO.
Note 3 Telephone plant includes gross additions and customs fees and duties by year as follows:

Year	Gross Adns	Customs Duties	Composite Avg Rate
88/89	346	43	13%
89/90	465	58	12%
90/91	453	67	15%
91/92	980	128	13%
92/93	931	153	16%
93/94	897	144	16%
94/95	964	154	16%

EXHIBIT 6-16
ARENTO
BALANCE SHEET-Actual and Proforma-FY's 1989-1995

LE in millions	ACTUAL 88/89	89/90	90/91	91/92	92/93	PROFORMA 93/94	94/95
ASSETS							
Telephone Plant:							
Telephone Plant In Service	2,964	3,468	3,768	4,491	5,167	5,863	6,619
Less:Accumulated Depre	662	847	907	1,040	1,259	1,505	1,768
Net Tele Plant In Service	2,302	2,621	2,861	3,451	3,908	4,358	4,851
Tele Plt Under Construction	374	390	407	556	783	885	987
Crrncy Trnsltn (Note1)	0	0	0	1,436	1,436	1,436	1,436
Total Telephone Plant (Note 3)	2,676	3,011	3,268	5,443	6,127	6,679	7,274
Equity In Subsidiaries	9	11	19	66	77	77	77
Current Assets:							
Cash and Equivalents	228	234	241	207	74	74	74
Accounts Receivable	132	215	395	346	441	441	441
Less:Uncollectable Res	22	23	23	23	25	25	25
Accounts Receivable (Net)	110	192	372	323	416	416	416
Inventories	59	78	71	88	100	114	130
Prepd Exp and Other Rec	40	124	96	194	110	110	110
Total Current Assets	437	628	780	812	700	714	730
TOTAL ASSETS	3,122	3,650	4,067	6,321	6,904	7,470	8,081
CAPITAL and LIABILITIES							
Capital and Reserves:							
Paid-In Capital	139	139	139	143	143	143	143
Reserves, Grants and Other	409	508	635	765	870	870	870
Adjust-Tax Liability (Note 2)	(640)	(781)	(913)	(1,061)	(1,177)	(1,245)	(1,363)
Retained Earnings(Surplus)	783	1,223	1,635	2,096	2,459	2,672	3,040
Total Capital and Reserves	691	1,089	1,496	1,943	2,295	2,440	2,690
Long Term Debt:							
Foreign	985	1,014	973	1,214	1,236	1,226	1,188
Crrncy Trnsltn (Note1)	0	0	0	1,436	1,436	1,436	1,436
Total Foreign Lng Trm Debt	985	1,014	973	2,650	2,672	2,662	2,624
Domestic	267	228	191	161	136	107	84
Total Long Term Debt	1,252	1,242	1,164	2,811	2,808	2,769	2,708
Current Liabilities:							
Foreign-Current Maturities	141	134	133	121	123	131	165
Domestic-Current Maturities	33	36	36	33	29	29	24
Tax Liability (Note 2)	640	781	913	1,061	1,177	1,245	1,363
Suppliers, Accrued and Other	365	368	325	352	472	856	1,131
Total Current Liabilities	1,179	1,319	1,407	1,567	1,801	2,261	2,683
Total Capital and Liabilities	3,122	3,650	4,067	6,321	6,904	7,470	8,081

Note 1 Exchange rate changes not recorded on the books of ARENTO are included herein in telephone plant and long term liabilities.
Note 2 Tax liabilities not recorded on the books of ARENTO are included herein. The GOE assessment of taxes has been contested by ARENTO.
Note 3 Telephone plant includes gross additions and customs fees and duties by year as follows:

Year	Gross Adns	Customs Duties	Composite Avg Rate
88/89	546	42	13%
89/9/0	465	58	12%
90/91	453	67	15%
91/92	980	128	13%
92/93	931	153	16%
93/94	897	144	16%
94/95	964	154	16%

EXHIBIT 6-17
ARENTO
BALANCE SHEETS

CODE NO.	ASSETS	1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
11	FIXED ASSETS					
111	LANDS	7,194,897	9,777,927	10,708,802	10,843,641	13,643,376
112	BUILDING & CONSTRUCTIONS	1,375,807,113	1,608,135,298	1,776,483,122	2,082,063,556	2,396,981,280
113	MACHINES & EQUIPMENT	1,349,387,651	1,614,962,923	1,842,465,300	2,284,656,834	2,636,663,800
114	TRANSPORTATION	24,017,191	21,059,503	19,456,216	20,393,408	23,217,789
115	TOOLS & GEARS	8,970,688	11,912,022	13,046,683	15,041,205	18,381,229
116	FURNITURE & DESKS EQUIPMENT	34,928,398	37,495,160	39,330,038	42,676,054	48,945,390
118	DEFERRED REVENUES EXPENDITURES	163,032,994	163,272,595	66,976,030	35,034,315	28,913,027
	ASSETS DAMAGED BY WAR	910,666	910,666	0	0	0
	SUB-TOTAL	2,964,249,598	3,467,526,094	3,768,466,191	4,490,709,013	5,166,745,891
12	PROJECTS UNDER CONSTRUCTIONS					
121	COMMODITIES FORMATION	61,335,676	59,102,983	12,907,325	121,294,744	433,253,473
122	INVESTMENT EXPENDITURES	313,105,936	331,295,160	393,626,761	435,059,249	349,328,920
	SUB-TOTAL	374,441,612	390,398,143	406,534,086	556,353,993	782,582,393
13	INVENTORIES					
131	COMMODITY REQUIREMENT	0	937,390	0	0	0
1311	RAW MATERIALS	1,208,754	31,162	688,656	889,115	696,287
1312	FUEL	36,797	30,792,812	45,277	24,233	10,189
1313	SPARE PARTS	21,272,924	98,163	28,545,318	40,068,868	44,790,962
1315	SCRAP	582,015	0	80,759	88,457	651,054
132	UNFINISHED GOODS	0	0	0	0	0
135	GOODS FOR SALE	9,948,700	9,179,024	7,545,990	7,564,541	14,214,071
136	LETTER OF CREDIT MACHINES	26,344,331	36,669,876	34,012,913	39,485,912	39,805,091
	SUB-TOTAL	59,393,521	77,708,427	70,918,913	88,121,126	100,167,654

EXHIBIT 6-17

CODE NO.	ASSETS	1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
15	**INVESTMENT**	6,861,181	10,863,204	19,461,181	66,073,175	77,404,719
16	**DEBTORS**					
161	ACCOUNT RECEIVABLES	0	0	0	0	0
1611	PUBLIC SECTOR	66,151,175	67,646,517	64,213,225	80,965,476	95,163,363
1612	PRIVATE SECTOR	32,232,829	55,462,301	199,316,513	180,874,486	205,394,145
1613	FOREIGN	25,286,118	83,283,196	123,560,918	74,726,935	129,808,687
163	SUNDRY DEBTORS	8,268,703	8,133,800	8,344,874	9,892,355	10,370,396
	SUB-TOTAL	131,938,825	214,525,814	395,435,530	346,459,252	440,736,591
17	**VARIOUS DEBTORS ACCOUNTS**					
172	OTHER DEBTORS	28,722,073	65,168,939	76,879,368	60,200,112	106,540,150
173	DEFERRED EARMARKED	1,282,191	33,332,464	4,008,35[illegible]	115,888,068	1,491,572
	SUB-TOTAL	30,004,264	98,501,403	8[illegible],[illegible]7,722	176,088,180	108,031,722
18	**CASH ON HAND & IN BANK**					
181	CASH ON HAND	365,220	881,563	808,303	829,430	1,076,541
1821	INVESTMENT ACCOUNT CURRENT	6,191,060	14,141,487	6,365,305	10,078,285	19,553,658
1822	INVESTMENT ACCOUNT	8,866,434	10,607,861	7,631,099	0	7,252,722
183	BANK DEPOSIT	75,667,543	107,305,335	99,701,875	35,136,445	34,291,262
	BANK HARD CURRENCY	89,101,084	51,872,943	46,555,428	109,023,662	11,557,443
	BANK SERVICE IMPROVEMENTS	47,896,414	49,025,386	80,301,673	51,703,225	65,217
	SUB-TOTAL	228,087,755	233,834,575	241,363,683	206,771,047	73,796,843
261	**SUPPLIERS**	9,510,740	25,352,831	14,888,278	17,968,444	1,628,835
	TOTAL ASSETS	3,804,487,496	4,518,710,491	4,997,955,584	5,948,544,230	6,751,094,648

EXHIBIT 6-17

CODE NO.	LIABILITIES	1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
	LIABILITIES					
21	**CAPITAL**	139,428,613	139,428,613	139,428,613	143,428,613	143,428,613
22	**RESERVES & CARRIED OVER SURPLUS**					
224	GENERAL RESERVES	0	0	110,753,562	153,365,556	107,014,254
226	RESERVES FOR INCREASE IN ASSETS PRICES	19,840,740	24,830,840	29,426,848	34,101,836	39,201,920
227	OTHER RESERVES			0	0	46,678,482
						1,000
	GRANTS	199,155,371	199,411,632	211,705,795	206,471,996	208,538,181
	SERVICES IMPROVEMENT FUND	190,116,235	224,057,584	224,057,584	312,716,173	410,195,436
	FOREIGN RECONCILIATIONS LIABILITIES	0	59,158,632	59,341,908	58,504,234	58,504,234
228	CARRIED OVER SURPLUS	780,126,649	1,221,182,051	1,633,630,384	2,094,969,749	2,457,160,784
	SUB-TOTAL	1,189,238,995	1,728,640,739	2,268,916,081	2,860,129,544	3,327,294,291
23	**PROVISIONS**					
231	DEPRECIATIONS					
2312	BUILDING & CONSTRUCTIONS	159,818,933	214,954,375	267,829,734	315,980,646	382,718,460
2313	MACHINERY & EQUIPMENTS	369,834,697	462,495,139	538,513,192	641,529,643	789,804,034
2314	TRANSPORTATION	19,234,249	18,227,413	18,821,218	18,179,164	19,883,477
2315	TOOLS & GEARS	5,698,570	8,754,691	9,992,470	11,953,393	12,997,813
2316	FURNITURES & OFFICE EQUIPMENTS	11,766,540	16,879,511	18,515,252	22,535,576	27,026,428
2318	DEFFERED REVENUES EXPENDITURES	95,287.882	125,432,171	53,653,483	29,923,706	26,258,066
	SUB-TOTAL	661,640,871	846,743,300	907,325,349	1,040,102,128	1,258,688,278
232	PROVISIONS FOR TAXES (CONTESTED)	1,181,170	1,181,170	1,181,170	1,181,170	1,181,170
233	DOUBTFUL ACCOUNTS	22,447,774	23,157,179	23,157,154	23,104,284	24,625,594
	SUB-TOTAL	23,628,944	24,338,349	24,338,324	24,285,454	25,806,764
234	PROVISIONS OTHERS					
	PROVISION FOR ASSETS DAMAGED BY WAR	910,666	910,666	0	0	0
	LIGITATIONS & DAMAGES	5,719,892	5,719,892	5,719,892	5,719,892	5,719,892
	SUB-TOTAL	6,630,558	6,630,558	5,719,892	5,719,892	5,719,892

EXHIBIT 6-17

CODE NO.	LIABILITIES	1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
24	LONG TERM DEBTS					
241	DOMESTIC	299,966,187	263,639,187	227,282,187	194,069,187	165,239,187
242	FOREIGN	1,125,855,277	1,147,529,998	1,105,569,571	1,334,905,560	1,358,530,487
	SUB-TOTAL	1,425,821,464	1,411,169,185	1,332,851,758	1,528,974,747	1,523,769,674
251	BANK OVERDRAFT	0	0	0	682,697	0
26	CREDITORS					
261	SUPPLIERS	10,045,638	20,945,761	5,823,580	8,551,037	10,021,842
263	MISCELLANEOUS	65,026,664	76,803,823	86,460,669	112,979,051	135,629,760
	SUB-TOTAL	75,072,302	97,749,584	92,284,249	122,212,785	145,651,602
27	VARIOUS CREDITOR ACCOUNTS					
2721	CREDITORS OF PURCHASING FIXED ASSETS	37,931,618	37,239,411	39,222,479	53,371,309	107,600,585
273	OTHERS	190,859,897	220,736,913	184,555,028	154,611,565	142,278,661
274	ACCRUED CURRENT EXPENSES	7,367,326	5,591,645	2,976,811	12,337,764	66,620,851
	SERVICE IMPROVEMENT FUNEL	46,446,908		0	0	0
	SUB-TOTAL	282,605,749	263,567,969	226,754,318	220,320,635	316,500,097
161	ACCOUNTS RECEIVABLES	420,000	442,194	337,000	3,370,432	4,235,437
	TOTAL OF LIABILITIES	3,804,487,496	4,518,710,491	4,997,955,584	5,948,544,230	6,751,094,648

EXHIBIT 6-18
ARENTO FIVE YEAR PLAN
CAPITAL SPENDING - PROJECTS
FISCAL YEARS 92/93 - 96/97

(LE in thousands)

REQUESTED

Funding required to reach objective of adding 2,175,000 Lines		4,825,000
Funding Sources		
Self Financing - IGF		
Local Currency	1,866,000	
Foreign Currency	1,495,000	
Total Self Financing - IGF	**3,361,000**	70%
Foreign Loans	1,464,000	30%
Total Funding	**4,825,000**	100%

APPROVED

Funding approved by Ministry of Planning		1,464,500
Funding Sources		
Self-Financing - IGF		
Local Currency	630,800	
Foreign Currency	552,700	
Total Self Financing - IGF	**1,183,500**	81%
Foreign Loans	281,000	19%
Total Funding	**1,464,500**	100%

The five year Capital Spending Plan is approved by the Chairman of ARENTO for submission to the Ministry of Planning.

For the Five Year Plan 92/93 - 96/97, the Chairman approved capital spending for Projects of LE 4,825,000 K; however the Ministry of Planning reduced the authorized spending level to LE 1,464,000 K, leaving a short fall of LE 3,361,000 K for the planning period.

Additional spending is approved by the Ministry of Planning during the planning period on an "after-the-fact" basis. ARENTO spends the internally generated funds they have available and at selected periods during the fiscal year they request "Post-Spending-Approval" from the Ministry of Planning.

712

EXHIBIT 6-19

ARENTO - FIVE YEAR PLAN
CAPITAL EXPENDITURES - PROJECTS
FISCAL YEAR S 92/93 - 96/97
APPROVED FROM MINISTRY OF PLANNING

(LE in thousands)

	NEW EXPANSION	COMPLETION	REPLACEMENT	TOTAL
Lands	1,500	-----	-----	1,500
Building, Constructions	111,470	151,775	176,500	439,745
Machines, Equipment	372,380	242,490	248,010	862,880
Transportation	4,030	1,450	6,650	12,130
Tools, Gears	22,705	9,700	15,150	47,555
Furnitures, Desks Equip.	2,050	2,465	6,490	11,005
Deffered Revenues Expenditures	7,845	4,160	3,840	15,845
Customs Charges	27,320	17,760	28,760	73,840
TOTAL	549,300	429,800	485,400	1,464,500
Percentage	38%	29%	33%	100%

FINANCING SOURCES

Self Finance - IGF

Local Currency	630,800
Foreign Currency	552,700
Total Self Financing-IGF	1,183,500
Foreign Loans	281,000
TOTAL FUNDING	1,464,500

EX[illegible] 6-20
PROJECTS - CAPITAL EXPENDITURES
AUTHORIZED FUNDING LEVELS AND ACTUAL EXPENDITURES
FISCAL YEARS ENDING 1989 TRHOUGH 1994

(In Millions L.E.)

YEAR		AUTHORIZED SPENDING LEVELS					VARIANCE	
		ARENTO BOARD OF DIRECTORS	MINISTRY OF FINANCE	MINISTRY OF PLANNING	TOTAL MINISTERIAL	ACTUAL EXPENDITURES	BOARD OF DIRECTORS/ACTUAL	%
88/89	Self Financed - IGF	0.0	60.9	255.5	316.4	316.4	316.4	100.0%
	Local Loans	145.1	35.7	-3.9	31.8	31.8	-113.3	-78.1%
	Foreign Loans - GOE	39.0	36.3	162.0	198.3	198.3	159.3	408.2%
TOTAL FUNDING		184.1	132.9	413.6	546.5	546.5	362.4	196.8%
89/90	Self Financed - IGF	115.4	147.4	184.5	331.9	331.9	216.5	187.5%
	Local Loans	61.1					-61.1	-100.0%
	Foreign Loans - GOE	46.0	55.0	77.8	132.8	132.8	86.8	188.8%
TOTAL FUNDING		222.5	202.4	262.3	464.7	464.7	242.2	108.9%
90/91	Self Financed - IGF	289.3	130.9	239.0	369.9	369.9	80.6	27.9%
	Local Loans	37.0					-37.0	-100.0%
	Foreign Loans - GOE	116.0	93.5	-10.7	82.8	82.8	-33.2	-28.6%
TOTAL FUNDING		442.3	224.4	228.3	452.7	452.7	10.4	2.4%
91/92	Self Financed - IGF	224.1	131.7	504.8	636.5	636.5	412.4	184.1%
	Local Loans	50.0					-50.0	-100.0%
	Foreign Loans - GOE	151.4	93.1	250.5	343.6	343.6	192.2	126.9%
TOTAL FUNDING		425.5	224.8	755.3	980.1	980.1	554.6	130.4%
92/93	Self Financed - IGF	501.9	295.0	434.5	729.5	729.5	227.6	45.4%
	Local Loans	95.3					-95.3	-100.0%
	Foreign Loans - GOE	211.5	10.0	191.7	201.7	201.7	-9.8	-4.6%
TOTAL FUNDING		808.7	305.0	626.2	931.2	931.2	122.5	15.1%
93/94	Self Financed - IGF	284.3	260.0					
	Local Loans	374.7						
	Foreign Loans - GOE	121.0	11.9					
TOTAL FUNDING		780.0	271.9	Pending	Pending			
94/95	Self Financed - IGF	342.9						
	Local Loans	367.8						
	Foreign Loans - GOE	127						
TOTAL FUNDING		837.7	Pending					

EXHIBIT 6-21

ARENTO CAPITAL SPENDING FUNDING SOURCES - FISCAL YEARS 1989 THROUGH 1995

(In Thousands L.E.)

YEAR		FUNDING REQUESTED	APPROVED BY MINISTRY OF FINANCE	ACTUAL EXPENDITURES	% DEBT	% EQUITY (Self Financing Ratio *)
88/89	Self Financed	----	60,870	316,383		
	Local Loans	145,120	35,700	31,840		
	Foreign Loan	39,010	36,310	198,262		
TOTAL FUNDING		184,130	132,880	546,485	42	58
89/90	Self Financed	115,445	147,370	331,906		
	Local Loans	61,075				
	Foreign Loan	45,980	54,980	132,793		
TOTAL FUNDING		222,500	202,350	464,699	29	71
90/91	Self Financed	289,300	130,920	369,941		
	Local Loans	37,000				
	Foreign Loan	116,000	93,500	82,792		
TOTAL FUNDING		442,300	224,420	452,733	18	82
91/92	Self Financed	224,050	131,722	636,497		
	Local Loans	50,000				
	Foreign Loan	151,450	93,050	343,589		
TOTAL FUNDING		445,500	224,772	980,086	35	65
92/93	Self Financed	501,862	295,000	729,517		
	Local Loans	95,288				
	Foreign Loan	211,500	10,000	201,684		
TOTAL FUNDING		808,650	305,000	931,201	22	78
93/94	Self Financed	284,321	260,000			
	Local Loans	374,679				
	Foreign Loan	121,000	11,885		requested	
TOTAL FUNDING		780,000	271,885	Pending	64	36
94/95	Self Financed	342,878				
	Local Loans	367,822				
	Foreign Loan	127,000			requested	
TOTAL FUNDING		837,700	Pending		59	41

* The Self Financing Ratio target should be in the range of 75% while the overall debt equity ratio should be maintained at a level of no less than 67%-33% when considering the effects of exchange rate fluctuations.

EXHIBIT 6-22
ARENTO CAPITAL SPENDING
FUNDING SOURCES - FIVE YEAR AVERAGE
FISCAL YEARS ENDING 1989 through 1993

(LE in millions)

Fiscal Year	ACTUAL EXPENDITURES			PERCENTAGE (%)	
	IGF	DEBT-GOE	TOTAL	EQUITY	DEBT
88/89	316.4	230.1	546.5	57.9%	42.1%
89/90	332.0	132.7	464.7	71.4%	28.6%
90/91	369.9	82.8	452.7	81.7%	18.3%
91/92	636.5	343.6	980.1	64.9%	35.1%
92/93	729.5	201.7	931.2	78.3%	21.7%
FOR FIVE YEARS	**2384.3**	**990.9**	**3375.2**	**70.6%**	**29.4%**

EXHIBIT 6-23
ARENTO CAPITAL SPENDING
COMPARISON BETWEEN INITIAL APPROVED LEVELS AND
ACTUAL EXPENDITURES
FISCAL YEARS ENDED 1988 through 1993

YEAR	ESTIMATED (Note 1)	ACTUAL	CHANGE (Note 2)	%
87/88	116,345	529,611	413,266	355
88/89	132,880	546,485	413,605	311
89/90	202,350	464,699	262,349	130
90/91	224,420	452,733	228,313	102
91/92	224,772	980,086	755,414	336
92/93	305,000	931,201	626,201	205
93/94	271,885	-----	-----	-----

AVERAGE CH. = 240%

(1) Spending level authorized by B of D, Ministry of TCA, Ministry of Finance and
People's Assembly.

(2) Spending post approved by Ministry of Planning. Is essentially financed with Internally Generated Funds (IGF). May include some foreign loans.

It should be noted that ARENTO does not prepare Balance Sheets as a part of their financial planning/budgeting process. The consultants, to facilitate the assessment of ARENTO's profitability and self-financing capability, developed Balance Sheets for the fiscal years 1994 and 1995 which are entitled "Proforma" in the above referenced exhibits. Critical information used in developing the proforma balance sheets, such as new debt, debt repayments and capital spending on projects was supplied by ARENTO.

Comments related to K&M's assessment of capitalization, debt capacity, capital spending and accounts receivable are presented in the subsequent following sections.

6.3.3.1 Assessment of Capitalization

ARENTO's capitalization at the end of fiscal year 1993 of LE 6.9 billion consisted of LE 2.3 billion or 33% equity and LE 4.6 billion or 67% debt as reflected in Exhibits 6-15 through 6-17. This results in a debt-to-asset ratio of .67 as shown in Exhibit 6-28. As reflected in Exhibits 6-15 and 6-16, it is projected for fiscal years 1994 and 1995, that this ratio will remain at 67% debt and 33% equity. Given the relatively high dividend payout (transfers) ratio, the outstanding tax liability and the continuing need to finance a high level of growth, it is most likely the debt-to-asset ratio will move toward more debt and less equity.

6.3.3.2 Assessment of Debt Capacity

As indicated above at 6.3.3.1, ARENTO's debt levels are projected to remain at 67% of capitalization. It should be noted that in firms with high growth rates and with public utility companies specifically, the debt-to-asset ratio should be, to demand the most favorable interest rates, in the 67/33 range moving towards 60/40 - 50/50 and as growth rates decline and the firm approaches maturity the ratio should be moving towards 40/60. In the least favorable conditions it would be preferable that the ratio should never exceed 70/30. Firms with debt-to-asset ratios that are more heavily weighted towards debt (above 67/33) are normally required to pay a risk premium in the form of higher interest rates. In foregoing the most favorable interest rates and in paying a risk premium, ARENTO has a nominal level of available debt capacity.

Based on interest coverage and net income, ARENTO currently has the capacity and ability to self-finance their on going operations, however they are severely restricted through the low retention rate of carried over surplus and a high debt-to-asset ratio. Consequently, ARENTO has only nominal capacity to finance with debt and needs to acquire additional equity. Additionally, ARENTO has no authority to borrow from the private sector. Most loans currently on the books are loans from the GOE. These loans also include USAID telecommunications grants that are made to the GOE and in turn are loaned to ARENTO.

6.3.3.3 Assessment of Capital Spending

Exhibits 6-18 and 6-19 reflect ARENTO's Five Year Plans, in aggregate, for capital spending and related funding sources for the years 1993 through 1997. Exhibits 6-20 through 6-23 reflect ARENTO's annual plans, actual expenditures and funding sources for the fiscal years ending 1989 through 1995. A review of these exhibits indicate that ARENTO's capital spending plans are very flexible and change dramatically during the year and in the aggregate over the planning horizon (future planning periods) based upon the amount of cash that is available to finance the construction program.

No annual capital expenditure plans were available to the consultants that reflected the "expected level" of future spending. The Board of Director approved annual spending levels and the initially approved annual spending levels authorized by the Ministries of Finance and Planning, as shown in Exhibit 6-21, have historically been understated and are not adequate for use in evaluating and assessing the capital spending levels for 1994 and 1995. Likewise, the approved Five Year aggregate plan, as shown in Exhibit 6-18, appears to be substantially below the actual "expected level" of spending and was considered inadequate as a basis for evaluating and assessing the capital spending levels for 1994 and 1995.

In developing the proforma balance sheets for 1994 and 1995 an "expected level" of capital spending was required. To develop an estimate of the expected capital spending level, the consultants developed a ratio between the Board of Director approved spending levels and actual expenditures, as shown in Exhibit 6-20. Over a five year period from 1989 through 1993, actual expenditures have ranged from 2% to 197% of the Board of Director approved expenditure levels. In 1993, actual capital expenditures exceeded the Board of Director approved spending levels by 15%. Based on this historical spending flexibility, the Board of Director approved capital spending levels for 1994 and 1995 were conservatively adjusted upward by 15% in preparing the proforma balance sheets. The Board of Director authorized spending levels for 1994 and 1995 were LE 780 million and LE 838 million respectively. These amounts were adjusted upward to LE 897 million and LE 964 million respectively for the years 1994 and 1995. Based upon historical spending patterns, ARENTO's objective to reach 8% of the households in Egypt by 1997 (as shown in Exhibit 6-18 with the requested authorization to add 2.2 million lines) and the known existing demand for telecommunications services, these capital spending levels are necessary and reasonable. Capital planning, spending and control should be enhanced. Should subsequent reductions be required due to a lack of funds, spending as shown in Exhibit 6-19 can be broken down into the following categories:

- New expansion 38%
- Completion of projections under construction 29%
- Replacement 33%

6.3.3.4 Assessment of Accounts Receivable

Accounts receivable at ARENTO increased in 1993 to 25% of revenues; in 1992 the accounts receivable year-end balance was 21% of revenues. This represents a 20% increase in receivables. The average collection period in 1992 was 76 days; in 1993 the average collection period was 91 days, indicating an increase of 20 days in the average collection period. Based on an average collection period of 44 days and 58 days respectively in 1989 and 1990, collections are continuing to deteriorate. As accounts receivables have increased, there has been no corresponding proportional increase in provision for uncollectibles, thus possibly understating expenses for 1994 and 1995.

6.3.4 SOURCE AND USE OF FUNDS STATEMENTS-FISCAL YEARS ENDED June 30, 1989 through June 30, 1995

EXHIBIT 6-24
ARENTO
PERCENTAGE SOURCE AND USE OF FUNDS STATEMENT-Fiscal Years 1989 through 1995

	ACTUAL					PROJECTED	
LE in millions	88/89	89/90	90/91	91/92	92/93	93/94	94/95
SOURCE OF FUNDS							
Internal Cash Generation							
Net Income before transfers	23.29%	38.53%	46.75%	41.25%	48.17%	54.99%	55.30%
Depreciation	23.57%	21.81%	24.20%	17.74%	23.19%	31.29%	31.25%
Reserves and Provisions	8.37%	10.40%	2.01%	5.06%	12.02%	0.00%	0.00%
Sale of Retired Assets	0.00%	0.34%	16.29%	8.40%	2.82%	0.00%	0.00%
Total Internal Cash Gnrtn	**55.23%**	**71.07%**	**89.26%**	**72.45%**	**86.20%**	**86.28%**	**86.55%**
External Sources							
Foreign Loans	40.31%	28.93%	10.74%	27.24%	13.80%	13.72%	13.45%
Domestic Loans	4.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Capital Contributions	0.00%	0.00%	0.00%	0.31%	0.00%	0.00%	0.00%
Total External Sources	**44.77%**	**28.93%**	**10.74%**	**27.55%**	**13.80%**	**13.72%**	**13.45%**
Total Sources of Funds	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
USES OF FUNDS							
Telephone Plt- Gross Adds	78.52%	58.76%	53.72%	76.26%	87.23%	101.70%	102.12%
Long term Debt Repayment	24.27%	30.62%	20.07%	11.98%	14.27%	18.14%	20.02%
Investments	0.00%	0.45%	1.06%	3.66%	1.03%	0.00%	0.00%
Transfers	1.53%	4.63%	13.70%	16.89%	25.07%	38.55%	28.81%
Change In Working Capital	-4.32%	5.54%	11.45%	-8.79%	-27.61%	-58.39%	-50.95%
Total Uses of Funds	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

EXHIBIT 6-25
ARENTO SOURCE AND USE OF FUNDS STATEMENT-Fiscal Years 1989 through 1995

	ACTUAL					PROJECTED	
LE in millions	88/89	89/90	90/91	91/92	92/93	93/94	94/95
SOURCE OF FUNDS							
Internal Cash Generation							
Net Income before transfers	167	341	396	530	513	485	522
Depreciation	169	193	205	228	247	276	295
Reserves and Provisions	60	92	17	65	128	0	0
Sale of Retired Assets	0	3	138	108	30	0	0
Total Internal Cash Gnrtn	**396**	**629**	**756**	**931**	**918**	**761**	**817**
External Sources							
Foreign Loans	289	256	91	350	147	121	127
Domestic Loans	32	0	0	0	0	0	0
Capital Contributions	0	0	0	4	0	0	0
Total External Sources	**321**	**256**	**91**	**354**	**147**	**121**	**127**
Total Sources of Funds	**717**	**885**	**847**	**1,285**	**1,065**	**882**	**944**
USES OF FUNDS							
Telephone Plt- Gross Adds	563	520	455	980	929	897	964
Long term Debt Repayment	174	271	170	154	152	160	189
Investments	0	4	9	47	11	0	0
Transfers	11	41	116	217	267	340	272
Change In Working Capital	(31)	49	97	(113)	(294)	(515)	(481)
Total Uses of Funds	**717**	**885**	**847**	**1,285**	**1,065**	**882**	**944**

EXHIBIT 6-26

ARENTO
STATEMENT OF SOURCES AND USES OF FUNDS
SOURCES

CODE NO.		1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
	SELF FINANCE					
21	CAPITAL			0	4,000,000	------
224	GENERAL PROVISIONS			110,753,562	42,611,994	------
226	RESERVES FOR REPLACEMENT VALUE OF ASSETS	2,089,911	4,990,100	4,596,008	4,674,989	5,100,084
227	OTHER RESERVES	35,116,817	93,356,241	12,477,440	88,658,589	146,224,930
228	CARRIED OVER SURPLUS	229,889,086	441,055,402	412,448,333	461,339,365	362,191,035
231	DEPRECIATION	164,780,516	186,109,265	60,582,049	157,148,611	222,251,789
233	PROVISIONS FOR DOUBTFUL ACCOUNTS	21,504,822	709,404	0	0	1,521,309
234	OTHER PROVISIONS	5,716,392	0	0	0	0
	SUB-TOTAL	459,097,544	726,220,412	600,857,392	758,433,548	737,289,147
	LIQUIDITY					
11	COSTS OF RETIRED ASSETS	0	2,957,688	137,963,747	108,023,098	29,649,128
	INVENTORY DECREASE					
131	COMMODITIES NECESSITIES	0	760,851	2,513,632	21,043	206,872
132	UNFINISHED WORK IN PROGRESS	181,258	0	0	0	0
135	GOODS FOR SALE	0	769,676	1,633,034	0	0
136	LETTERS OF CREDIT	0	0	3,590,745	0	1,107,752
	SUB-TOTAL	181,258	1,530,527	7,737,411	21,043	1,314,624
	DECREASE IN SECURITIES & OTHER INVESTMENTS					
161	SUBSCRIBERS	5,593,754	0	3,433,292	67,276,010	0
163	MISCELLANEOUS RECEIVABLE	0	405,946	130,130	35,673	6,627
171	VARIOUS RECEIVABLE	0	0	0	0	0
172	OTHER RECEIVABLE	0	29,624	10,770,140	23,793,457	16,466,027
173	DUE REVENUES	0	0	29,368,766	3,255,067	114,396,496
18	CASH ON HAND & IN BANK	0	43,223,964	0	98,686,659	149,949,410
	SUB-TOTAL	5,593,754	43,659,534	43,702,328	193,046,866	280,818,560

EXHIBIT 6-26 - SOURCES

CODE NO.		1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
	LONG TERM LOANS					
241	LOCAL	31,840,000	0	0	0	0
242	FOREIGN	288,877,606	26,167,857	85,462,726	338,892,398	146,923,654
242	CORRECTION OF FOREIGN LOANS	0	0	5,855,316	11,270,635	0
	SUB-TOTAL	320,717,606	56,167,857	91,318,042	350,163,033	146,923,654
	PAYABLES & BANK					
261	SUPPLIERS	9,162,385	11,153,592	0	2,727,457	1,470,805
262	MISCELLANEOUS	9,414,540	11,808,748	9,982,888	26,531,102	22,661,471
272	VARIOUS	0	0	1,983,068	14,148,831	54,229,275
273	OTHERS	76,293,735	105,844,599	64,124,347	12,369,990	41,158,598
274	CURRENT EARMARKED EXPENDITURES	4,723,101	323,318	17,131	9,361,517	54,291,341
	SUB-TOTAL	99,593,761	129,130,257	76,107,434	65,138,897	173,811,490
	TOTAL SOURCES	885,183,923	1,159,666,275	957,686,354	1,474,826,485	1,369,806,603

EXHIBIT 6-26 - USES

CODE NO.		1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
	USES NO. (2)					
	CAPITAL FORMATIONS					
112	BUILDINGS & CONSTRUCTIONS	230,546,253	232,328,186	166,027,032	319,873,407	323,636,891
113	MACHINERY & EQUIPMENT	174,914,327	265,575,271	263,019,558	478,138,731	368,928,800
114	TRANSPORTATION	340,959	0	234,403	2,709,423	2,010,860
115	TOOLS & IMPLEMENTS	367,895	2,941,333	1,135,977	2,081,202	1,806,276
116	FURNITURE & OFFICE EQUIPMENT	3,015,041	2,566,762	1,932,347	2,646,081	5,766,692
118	DEFERRED REVENUES EXPENDITURES	7,935,717	239,601	6,308,037	0	23,230
	SUB-TOTAL	417,120,192	503,651,153	438,657,354	805,448,844	702,172,749
	INVENTORIES					
131	COMMODITIES	5,518,728	9,519,888	14,115	11,731,708	5,284,690
132	UNFINISHED PRODUCTION & WORK IN PROGRESS	0	0	0	0	0
135	GOODS FOR RESALE	767,429		0	18,550	6,649,530
136	LETTERS OF CREDIT	4,908,861	10,325,546	933,781	5,472,999	1,426,931
	SUB-TOTAL	11,195,018	19,845,434	947,896	17,223,257	13,361,151
12	**PROJECTS UNDER CONSTRUCTIONS**	146,034,122	15,956,531	16,135,943	174,502,145	226,941,920
	CAPITAL TRANSFERS					
111	LANDS (FIXED ASSETS)	352,654	2,583,030	246,490	134,838	2,799,736
	LAND (PROJECTS)	0	0	0	0	0
	SUB-TOTAL	352,654	2,583,030	246,490	134,838	2,799,736
15	**FINANCIAL (INVESTMENT)**	0	4,002,023	8,597,977	46,611,994	11,331,544
	RECEIVABLES					
161	ACCOUNTS RECEIVABLES	0	82,721,891	184,131,935	16,752,251	93,799,298
163	MISCELLANEOUS RECEIVABLES	256,955	271,042	341,205	1,583,155	484,668
171	MISCELLANEOUS DEBTORS	0	0	0	0	0
172	OTHER RECEIVABLES BALANCES	9,742,012	52,318,582	12,016,015	10,194,368	46,466,455
173	ACCRUED CURRENT RECEIPTS	1,282,191	32,050,273	44,656	115,134,781	0
	SUB-TOTAL	11,281,158	167,361,788	196,533,811	143,664,555	140,750,421

EXHIBIT 6-26 - USES

CODE NO.		1988/1989	1989/1990	1990/1991	1991/1992	1992/1993
	PAYMENT OF LONG TERM LOANS					
241	LOCAL INSTALLMENTS	33,145,000	36,327,000	36,357,000	33,213,000	28,830,000
242	FOREIGN INSTALLMENTS	141,234,937	12,106,477	118,405,853	120,827,043	123,296,193
	ADJUSTMENT OF FOREIGN LOANS	0	122,386,659	14,872,617	0	2,534
	SUB-TOTAL	174,379,937	270,820,136	169,635,470	154,040,043	152,128,727
18	**CASH ON HAND AND IN BANK**	107,021,816	48,970,785	7,529,108	63,411,327	17,657,903
	DECREASE IN PAYABLES					
261	SUPPLIERS	0	253,469	15,122,181	0	0
263	MISCELLANEOUS	369,582	31,589	326,042	12,720	10,762
272	VARIOUS PAYABLES	17,193,518	692,207	0	0	0
273	OTHERS	11,234	122,392,296	100,411,426	39,280,021	52,626,497
274	CURRENT EARMARKED EXPENSES PAYABLES	224,692	2,098,998	2,631,965	567	8,251
12	DECREASE IN CAPITAL	0	0	0	0	0
22&23	DECREASE IN PROVISIONS & SERVICES	0	1,006,836	910,691	30,496,174	50,016,942
	SUB-TOTAL	17,799,026	126,475,395	119,102,305	69,789,482	102,662,452
	TOTAL USES	885,183,923	1,159,666,275	957,686,354	1,474,826,485	1,369,806,603

EXHIBIT 6-27

ARENTO PROVIDED INTERNALLY GENERATED FUNDS

FISCAL YEARS ENDED 1993 Through 1997

YEAR	NET INCOME	DEPRECIATION	TOTAL	DEBT REPAYMENT *	NET FOR PROJECTS	OTHER SOURCES	TOTAL
92/93	524,364	260,000	784,364	163,800	620,564	50,000	670,064
93/94	645,800	276,000	921,800	159,600	762,200	50,000	812,200
94/95	714,000	292,000	1,006,000	165,900	840,100	50,000	890,100
95/96	782,000	310,000	1,092,000	166,000	926,000	50,000	976,000
96/97	851,800	329,000	1,180,800	137,000	1,043,800	50,000	1,093,800
							4,442,164

*** Debt Repayment**

Local	Foreign	Total
28,800	135,000	163,800
28,600	131,000	159,600
28,900	137,000	165,900
29,000	137,000	166,000
- 0 -	137,000	137,000

EXHIBIT 6-28
ARENTO
FINANCIAL STATEMENT ANALYSIS AND RATIOS

	ACTUAL					PROJECTED		TARGETS
	1989	1990	1991	1992	1993	1994	1995	
Liquidity								
Current Ratio								
w/tax Liability	0.37	0.48	0.55	0.52	0.39	0.32	0.27	1.0
w/o tax Liability	0.81	1.17	1.58	1.60	1.12	0.70	0.55	N/A
Working Capital								
w/tax Liability	(742)	(691)	(627)	(755)	(1,101)	(1,547)	(1,953)	0
w/o tax Liability	(102)	90	286	306	76	(302)	(590)	N/A
Leverage (Capital Adequacy; Asset Protection)								
Debt to Asset Ratio								
w/tax Liability	0.78	0.70	0.63	0.69	0.67	0.67	0.67	.60
w/o tax Liability	0.57	0.49	0.41	0.52	0.50	0.51	0.50	N/A
Debt to Equity Ratio								
w/tax Liability	3.52	2.35	1.72	2.25	2.01	2.06	2.00	1.50
w/o tax Liability	1.35	0.95	0.69	1.10	0.99	1.02	0.99	N/A
Credit Worthiness/Safety Measures								
Return on Sales	0.19	0.29	0.29	0.32	0.29	0.27	0.27	30%
Fixed Charge Coverage - before transfers	2.50	4.30	4.70	5.80	5.00	4.90	5.70	N/A
Fixed Charge Coverage - after transfers	2.40	3.90	3.60	3.80	2.90	2.20	3.30	3.00
Reward to Investors								
Return on Equity (ROE)	24%	31%	26%	27%	22%	20%	19%	20-25%
Efficiency in Utilizing Assets								
Return on Investment (ROI)	5%	9%	10%	8%	7%	6%	6%	12%
Average Collection Period	44	58	99	76	91	N/A	N/A	45
Cost of Capital					9%			
Sustainable Growth Rate	22%	27%	18%	16%	11%	6%	9%	25%
Pay Out Ratio	7%	12%	29%	41%	52%	70%	52%	25%
Retention Rate	93%	88%	71%	59%	48%	30%	48%	75%
Self Financing Ratio	58%	71%	82%	65%	78%	36%	41%	75%

EXHIBIT 6-29

ARENTO

WEIGHED COST OF CAPITAL

For Period Ended June 30, 1993

LE in Millions	Amount	% of Total	Cost After Tax (Note 1)	Weighed Cost
Debt	4.609	67%	3%	2%
Equity	2.295	33%	20%	7%
Weighed Cost of Capital				9%

Note 1:

A) After Tax Cost of Debt Calculation:

$$\frac{\text{Interest Expense} \times (1 - \text{tax rate})}{\text{Debt}} = \frac{191 \times (1-.32)}{4609} = \frac{130}{4609} = 3\%$$

B) After Tax Cost of Equity:

Return on equity for fiscal year ending in 1993: 454 / 2295 = 20%

It should be noted that ARENTO's budgeting and planning process does not require a prospective annual or five year aggregate source and use of funds statement.

Comments related to K&M's assessment of ARENTO's liquidity is presented in the subsequent following sections.

6.3.4.1 Assessment of ARENTO's Liquidity

ARENTO source and use of funds as shown in Exhibit 6-26 for the fiscal years 1989 through 1993 and Exhibit 6-27 for fiscal year 1993 through 1997 have been adjusted by the consultant and the adjusted source and use of funds are shown in Exhibits 6-24 and 6-25. The adjustments include income statement changes discussed at section 6.3.2 and balance sheet changes as discussed in section 6.3.3. Additionally, the source and use of funds statements for the fiscal years 1994 and 1995, shown in exhibits 6-24 and 6-25, were used to identify the amount of additional financing ARENTO would need to fund existing planned/requested spending.

Exhibits 6-24 and 6-25 indicate that to fund operations, transfers (dividends) and capital spending, there is a need for additional financing of LE 733 million for 1994 and LE 671 million for 1995. A portion of this requirement most likely could be funded through working capital, however it is unlikely that working capital could be used to fund the entire additional requirement. Based on the requests and plans developed by ARENTO for the 1994 and 1995 fiscal year, they will meet this requirement through local Egyptian financing rather than securing foreign debt.

Based on the foregoing, ARENTO does not have the liquidity to fund operations, transfers and planned growth (capital expenditures) for fiscal year 1994 and 1995. Working capital and debt capacity is insufficient to fund this level of expenditure.

6.3.5 CONCLUSIONS

6.3.5.1 Profitability Assessment

Based on the above assessment and the below analysis of ARENTO's financial statements, as shown in Exhibit 6-28, it is the conclusion of the consultants that ARENTO's profitability when stated in terms of "return on equity" is excellent but declining; when stated in terms of "return on investment" is relatively low; and, when stated in terms of "return on sales" is very good. The summary conclusion is that ARENTO's profitability is very good but declining. The growth in international revenues has declined and expenses have grown at a faster rate than revenue growth. Thus creating a need to increase revenues and control the growth in expenses.

6.3.5.2 Self-financing Assessment

Based on the above assessment and the below analysis of ARENTO's financial statements, as shown in Exhibit 6-28, it is the conclusion of the consultants that ARENTO's self-financing capability when stated in terms of "fixed charge coverage" is excellent; when stated in terms of "working capital" and "current ratio" is very poor; when stated in terms of "debt-to-asset ratio" is marginal with the possible requirement for the payment of a risk premium; when stated in terms of "sustainable growth rate", self-financing in the foreseeable future would not be possible; when stated in terms of "average collection period" is poor; and, when stated in terms of "weighted average cost of capital" is very good. The summary conclusion is that ARENTO's self-financing capability is poor and likely to remain so until a settlement on the tax liabilities is agreed upon and the high payout ratio is decreased over time to not more than 25%.

6.3.5.3 Pictorial Graphs of ARENTO's Profitability and Self Financing Examination and Assessment

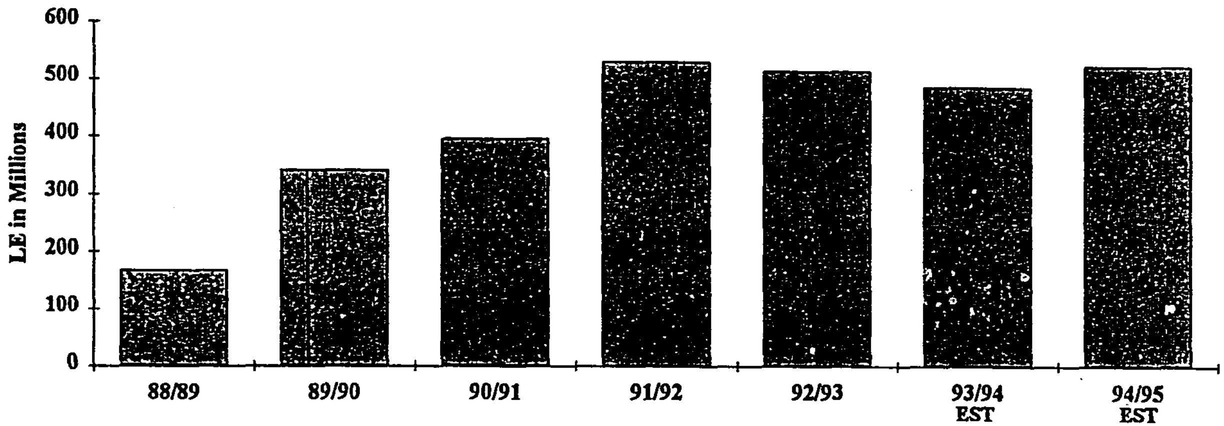
The charts and graphs presented on the following pages represent a pictorial description of ARENTO's profitability and self financing capabilities. These charts and graphs include the following:

Exhibit 6-30	Profitability Assessment - Net Income
Exhibit 6-31	Profitability Assessment - Interest Coverage and Return on Investment
Exhibit 6-32	Profitability Assessment - Summary
Exhibit 6-33	Self Financing Assessment - Pay-Out Ratio and Retention Rate
Exhibit 6-34	Self Financing Assessment - Liquidity
Exhibit 6-35	Self Financing Assessment - Debt Capacity and Leverage
Exhibit 6-36	Self Financing Assessment - Self Financing Ratio
Exhibit 6-37	Self Financing Assessment - Implications for the Future
Exhibit 6-38	Profitability and Self Financing Assessment - Tax Liabilities and Capital Spending
Exhibit 6-39	Profitability and Self Financing Assessment - Transfers, Revenue and Expense Growth
Exhibit 6-40	Cash Available and Cash Requirements

EXHIBIT 6-30
PROFITABILITY ASSESSMENT

- **ARE YOU PROFITABLE**

NET INCOME*

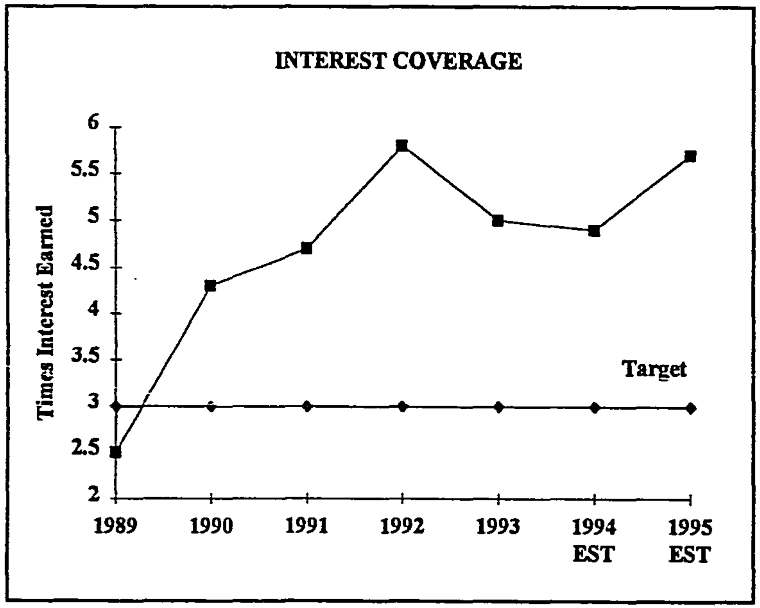


*** Carried over surplus after taxes and before financial obligations**

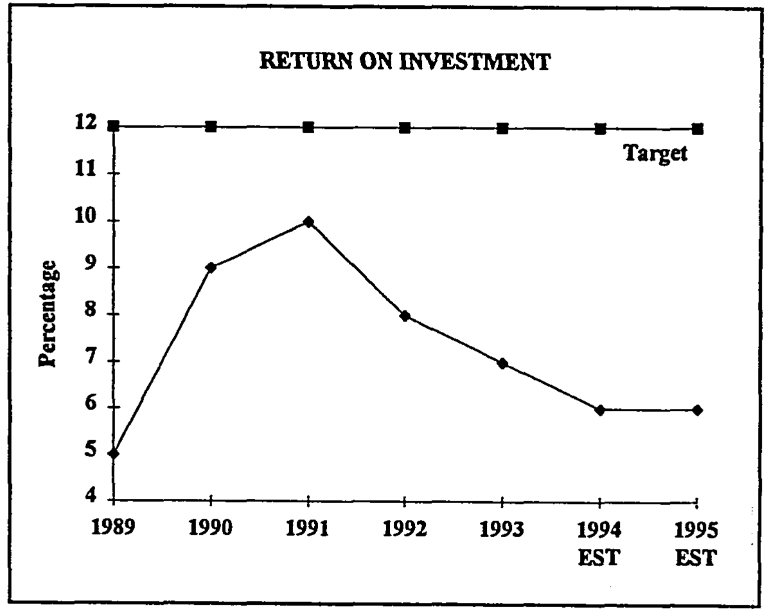
GENERAL TREND OF PROFITS - IS DOWNWARD TO FLAT AND NOT KEEPING PACE WITH REVENUE GROWTH

228

EXHIBIT 6-31
PROFITABILITY ASSESSMENT



EXCELLENT



DECLINING

EXHIBIT 6-32
PROFITABILITY ASSESSMENT - SUMMARY

- **INTEREST COVERAGE IS GREAT**

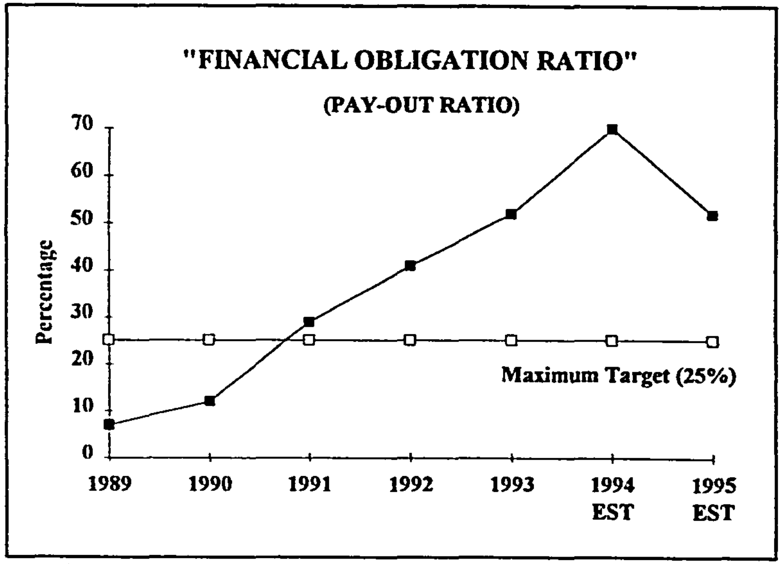
- **RETURN ON INVESTMENT IS MARGINAL**
  - **A BIT LOW**
  - **10-14% MAY BE MORE REASONABLE**

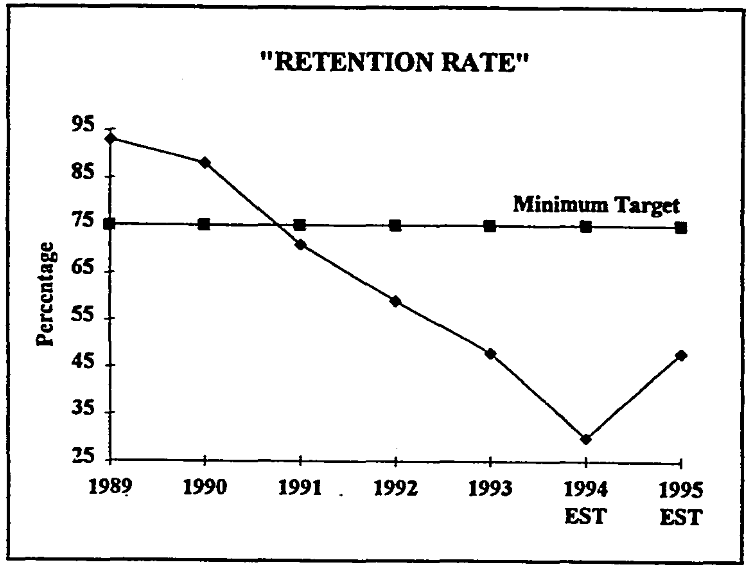
- **HIGHER EARNINGS WOULD BE DESIRABLE**

230

231

EXHIBIT 6-33
SELF FINANCING ASSESSMENT



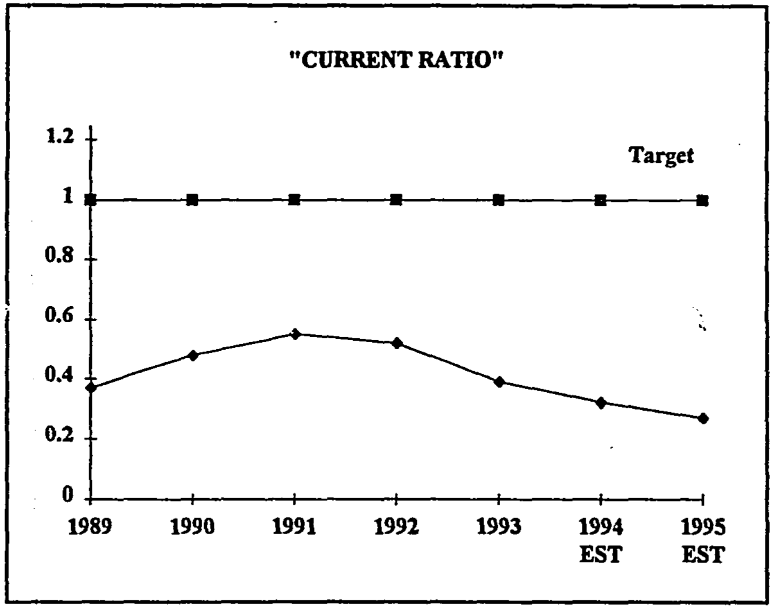


TREND IS UP
94/95 Projection is Conservative

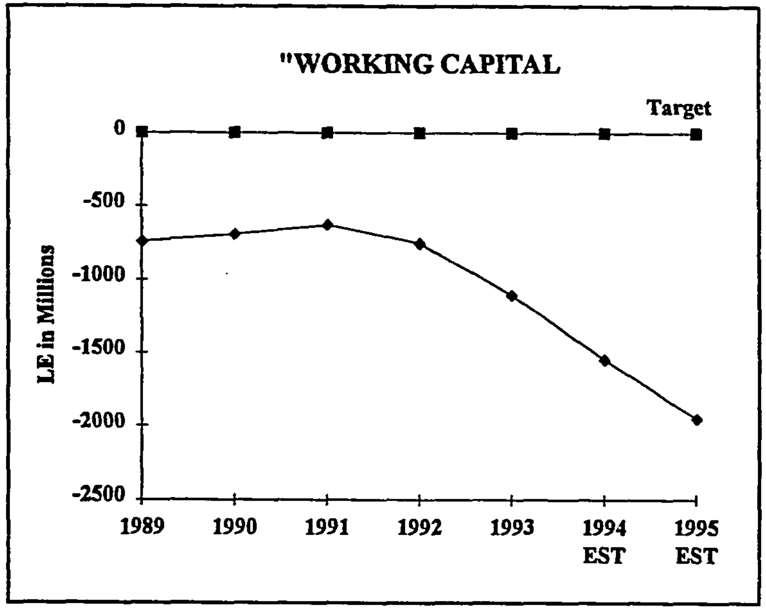
TREND IS DOWN
94/95 Projection is Conservative

EXHIBIT 6-34
SELF FINANCING ASSESSMENT

LIQUIDITY



LOW

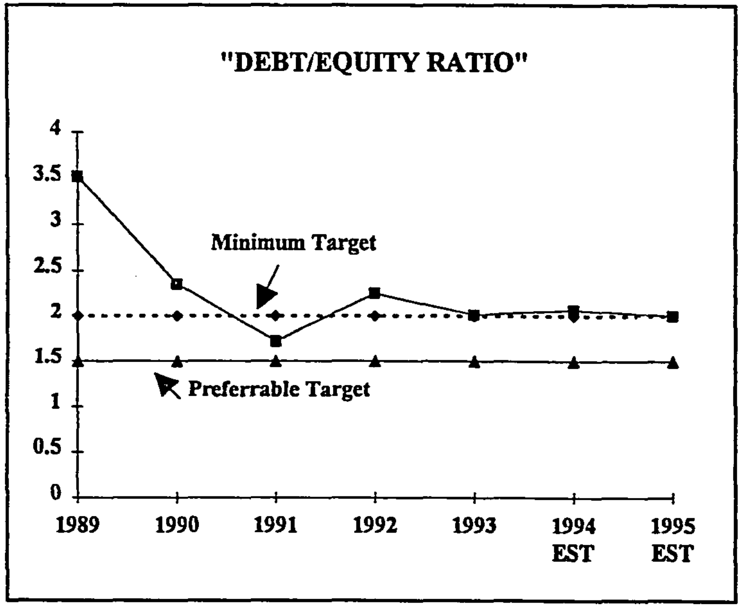


NEGATIVE

232

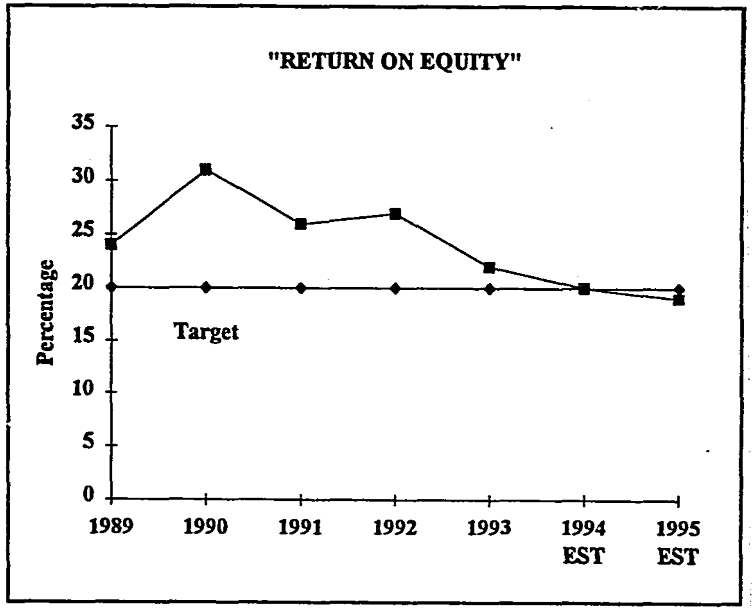
EXHIBIT 6-35
SELF FINANCING ASSESSMENT

DEBT CAPACITY



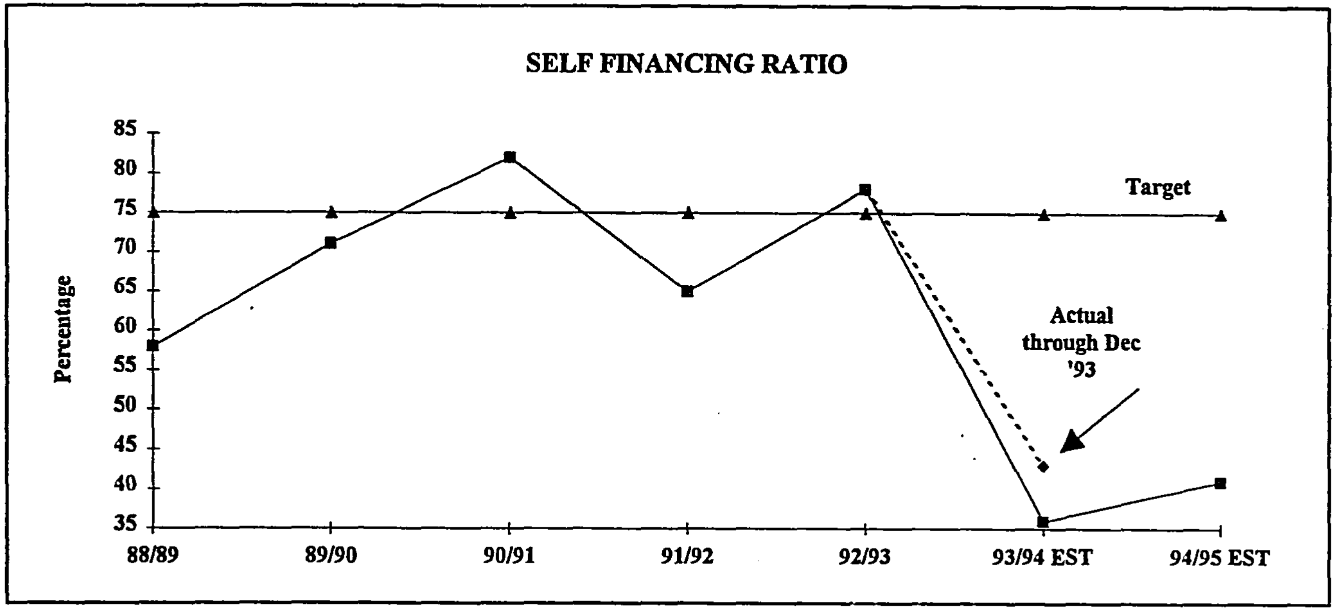
BORDERLINE HIGH

LEVERAGE



VERY GOOD

EXHIBIT 6-36
SELF FINANCING ASSESSMENT
SUMMARY



YOUR SELF FINANCING CAPACITY IS LOW

225

EXHIBIT 6-37
SELF FINANCING ASSESSMENT

IMPLICATIONS FOR THE FUTURE

MAINTAIN OR DECREASE PROJECT SPENDING

INCREASE REVENUES

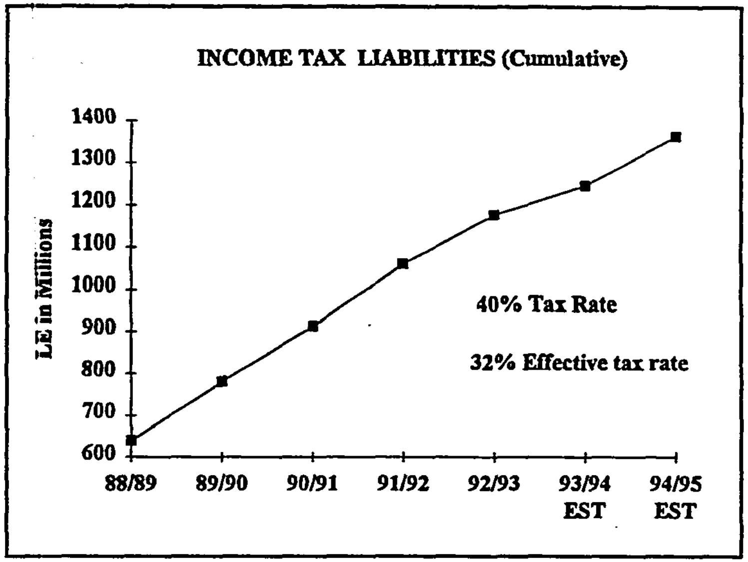
DECREASE EXPENSES

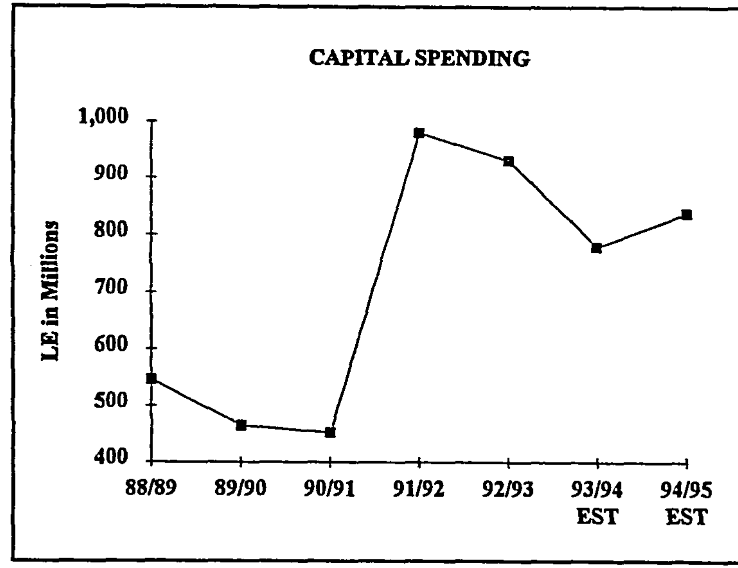
INCREASE RETENTION RATE

DECREASE LIABILITIES

INCREASE EQUITY

EXHIBIT 6-38
PROFITABILITY AND SELF FINANCING ASSESSMENT



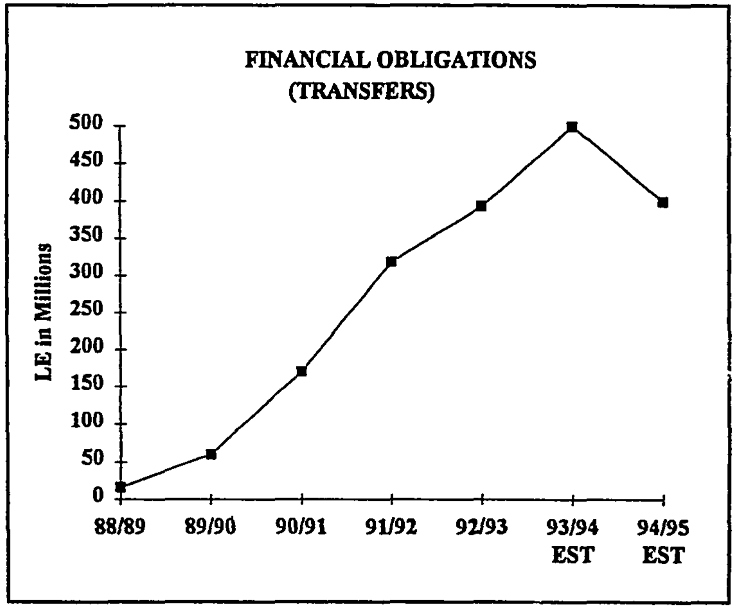


SHOULD LEVEL OFF OR DECLINE **ROBUST**

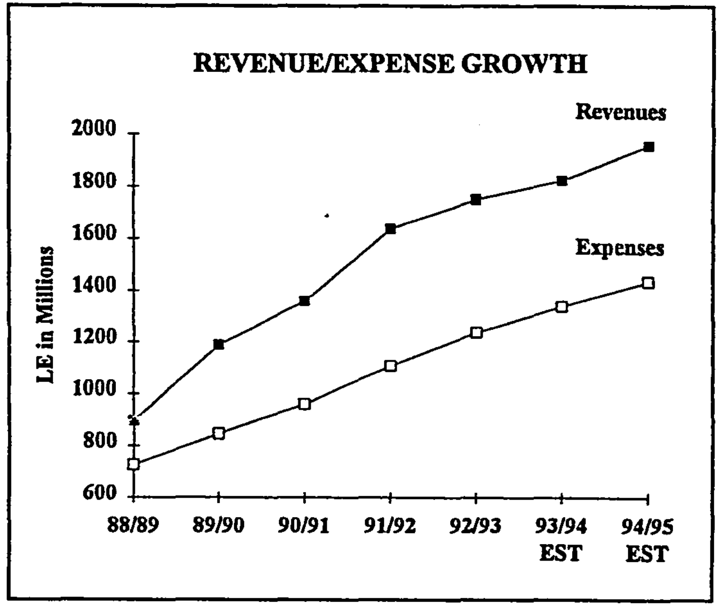
236

237

EXHIBIT 6-39
PROFITABILITY AND SELF FINANCING ASSESSMENT



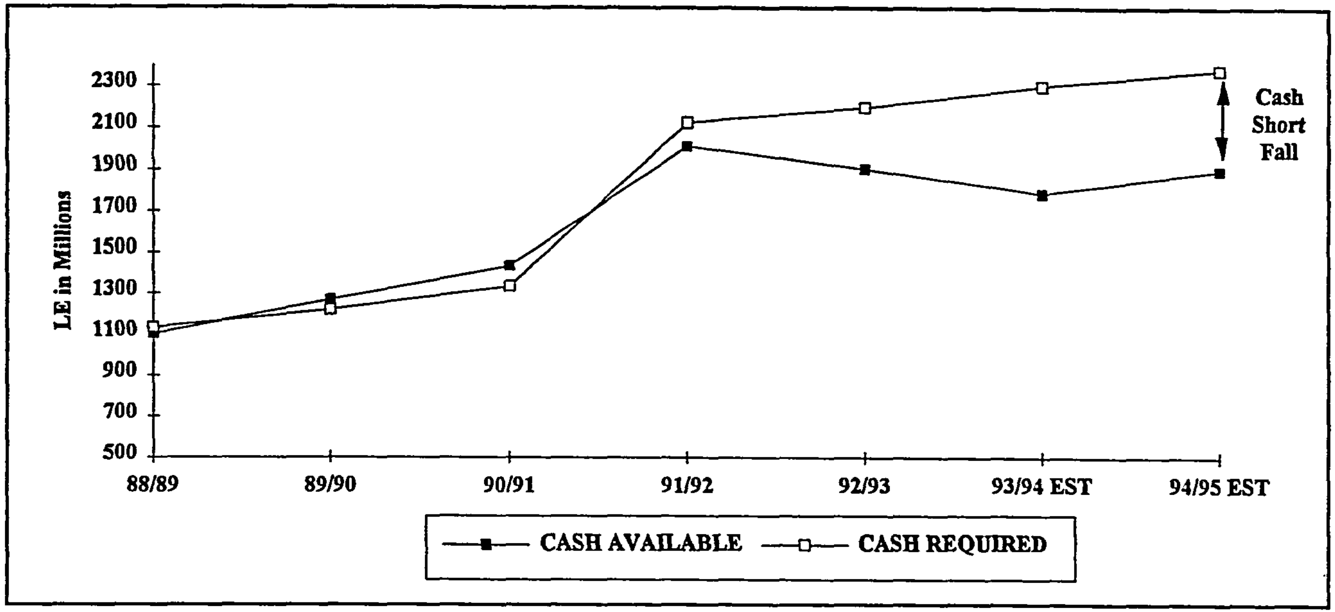
THE TREND IS UP



NET INCOME GROWTH IS DECLINING TO FLAT

EXHIBIT 6-40
CASH AVAILABLE AND CASH REQUIREMENTS

Fiscal Years 1989 through 1995



CASH SHORT FALL IS NOT IMPROVING
RATE OF DECLINE HAS LEVELED OFF
SHORT FALLS CANNOT BE SUSTAINED INDEFINITELY

238

6.4 RECOMMENDATIONS

ARENTO's profitability is very good but declining, however the road to success is always under construction and there are a few items that if implemented could improve an already very good performance. These items include:

Phase I - "Positioning for the Future"

- as recommended in Section 4 on Regulatory and Legal Reform, develop a formal process for developing and proposing rate and tariff changes (see Exhibit 6-11 for possible tariff change options). Increased revenues of LE 420 million are needed to improve ARENTO's financial position to acceptable levels.

- raise additional equity capital by swapping debt for equity from the GOE for prior USAID grants that are carried as long term liabilities on ARENTO's balance sheet.

- based on findings in the Organizational and Operations Assessment (Section 5), place an increased level of focus on marketing vertical and enhance services to increase revenue growth with only nominal increase in cost (expenses). It is estimated that an additional LE 25-40 million of additional revenue could be generated over the next five years.

- place additional attention and creativity on reducing accounts receivable balances to improve liquidity and working capital position. Options include:

  - reduce accounts receivable through improved treatment and collection
  - increase billing frequency
  - off set GOE accounts receivable against ARENTO liabilities to the GOE
  - initiate a government communications tax
  - bartering with the GOE

- develop and publish annual financial statements-balance sheet, income statement and source and use of funds statements-in conjunction with annual budgets and five year strategic business plans.

- reduce the payout ratio to maintain a sustainable growth rate of not less than the expected increase in revenues:
  - limit the payout ratio (transfers) to 25%

- improve long-term debt-to-asset ratio:
  - improve self-financing ratio to 75%
  - create/develop financier skills and hedge exchange rate exposure on foreign debt

- follow the spirit and intent of Public Law 153 by developing a five year strategic business plan consistent with the national telecommunications policy for the country of Egypt that can be approved once every five years and subsequently evaluated annually by the various Ministries.

- increase the uncollectible reserve

- use government accounts receivable as off-set against long-term liabilities

- authority to borrow from the private sector needs to be delegated to the ARENTO Board of Directors.

<u>Phase II - "Implementation Stage"</u>

- raise additional equity capital by forming a joint stock company and issuing preferred (non-voting) stock, convertible debentures and common stock.

- create a group that has the primary responsibility to plan and manage cash, debt, equity (capital) and collections. This would include developing the in-house skills to secure and negotiate debt terms and provisions related to self-financing and in effect encompasses the management of the short and long-term capital (equity and liabilities) and cash positions of the corporation on a sound commercial financial management basis. This will increase profits through the development and maintenance of a more optimum capital and cash position and would enable ARENTO to substantially reduce their current costs and future risks associated with exchange rate fluctuations.

- develop activity based cost accounting principles for use in costing products and services that can be used in conjunction with long-run marginal cost analysis and tariff/rate development.

6.4.1 Pictorial Graphs of Recommendations and Results

The charts and graphs presented on the following pages represent a pictorial description of key recommendations and the financial impact assessment of increasing revenues to reach agreed upon targets for retun on investment. The charts and graphs include the following:

Exhibit 6-41	Recommendations
Exhibit 6-42	ARENTO Change in Revenue Requirements to Improve Profitability and Return on Investment
Exhibit 6-43	ARENTO Today - 1995 - 6% ROI
Exhibit 6-44	ARENTO as Proposed - 1995 - 10% ROI

EXHIBIT 6-41
PROFITABILITY AND SELF FINANCING
RECOMMENDATIONS

- **IMPLEMENT STRATEGIC BUSINESS PLANNING**

  To Facilitate and Integrate Long Term Financial and Operational Planning

<u>PROFITABILITY</u>

- **INCREASE REVENUES AND RETURN ON INVESTMENT**
  - **Increase Sales and Rate Adjustments**
  - **Increase Frequency of Billing**

<u>SELF-FINANCING</u>

- **NEGOTIATE A FAVORABLE TAX SETTLEMENT to Reduce Short Term Liabilities**
- **DECREASE YOUR FINANCIAL OBLIGATION RATIO (PAY OUT RATIO)**
- **DECREASE DEBT - with GOE debt FINANCIAL OBLIGATIONS to Equity**

EXHIBIT 6-42
ARENTO
CHANGE IN REVENUE REQUIREMENTS TO IMPROVE "PROFITABILITY" AND "RETURN ON INVESTMENTS" (ROI)

(LE in Millions)	Alternatives						Current Projection	
	12% ROI		10% ROI		8% ROI		6% ROI	
	1994	1995	1994	1995	1994	1995	1994	1995
Retained Income	672	728	560	606	449	485	145	250
Revenue - GOE	646	698	538	582	431	466	568	518
Additional Rev. Req.	605	658	385	420	166	182	-----	-----

To reach a 10% return on investment ARENTO needs an increase in revenues of LE 420 million in 1995. The chart above reflects various revenue changes that will produce differing levels of return on investment. The preferred approach would suggest that return on investment should not be less than 10%, which, as indicated above, will require an additional LE 420 million in 1995 to reach the minimum target.

243

6-43

ARENTO TODAY - 1995 - 6% ROI

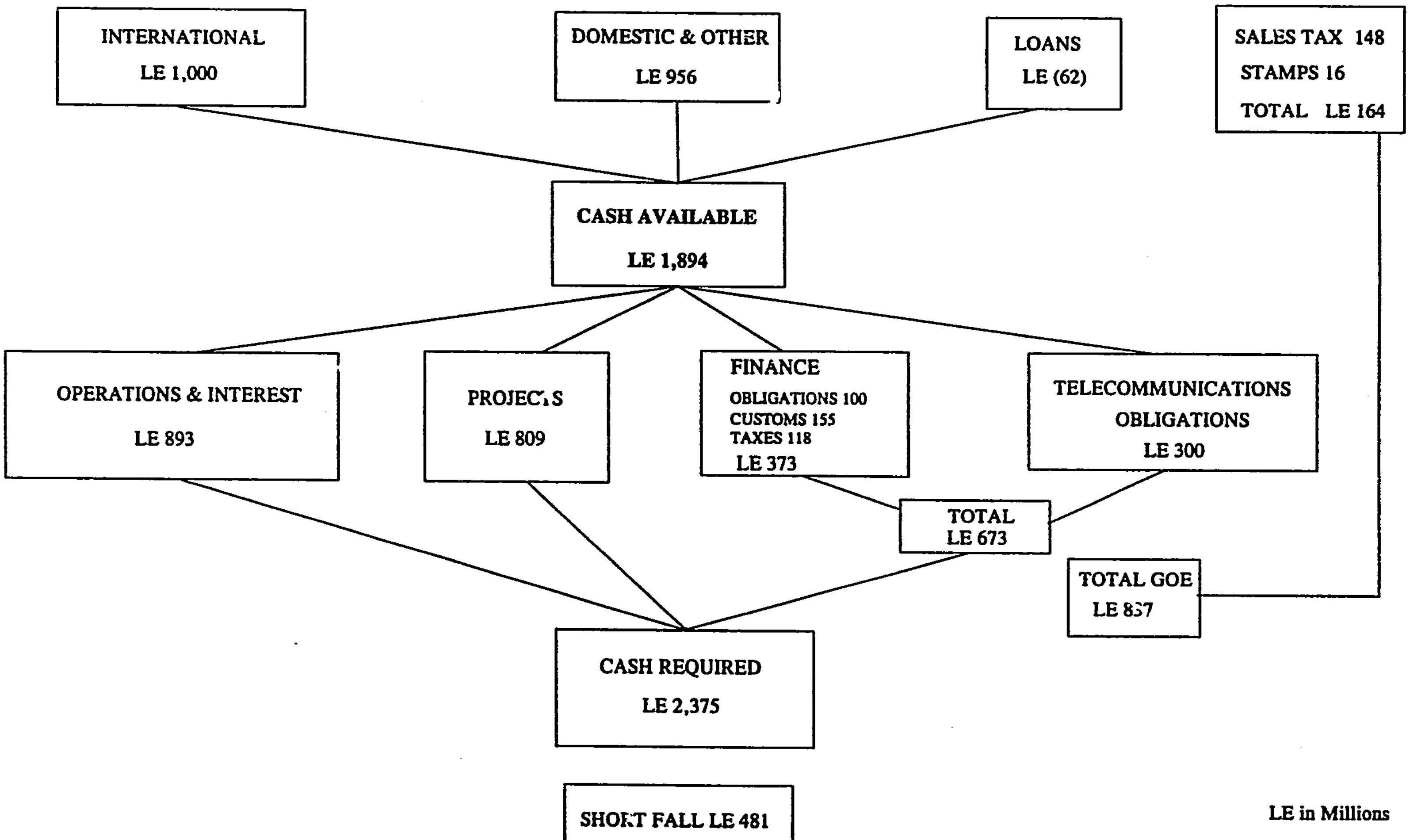
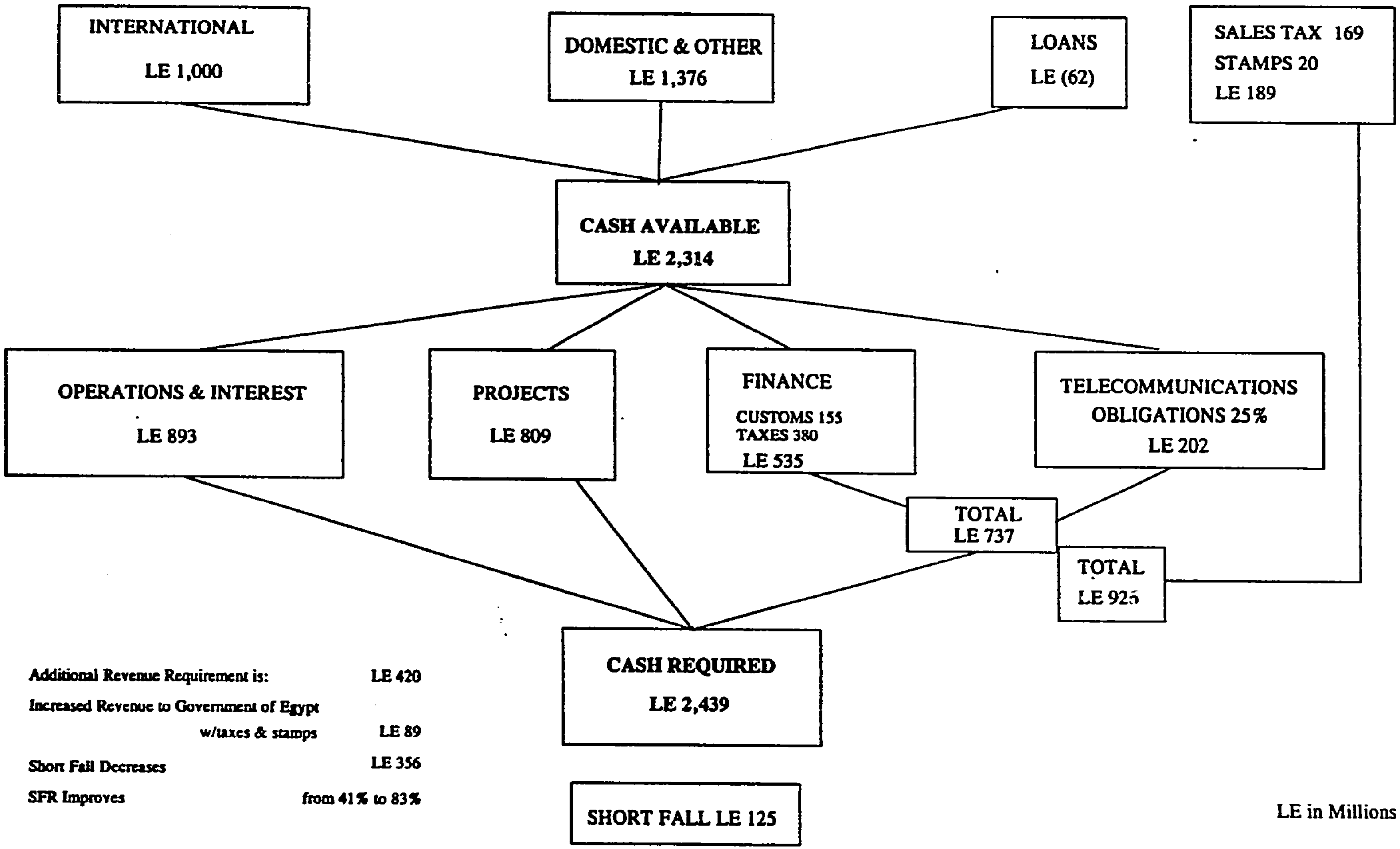


EXHIBIT 6-44

ARENTO AS PROPOSED - 1995 - 10% ROI



Additional Revenue Requirement is:	LE 420
Increased Revenue to Government of Egypt w/taxes & stamps	LE 89
Short Fall Decreases	LE 356
SFR Improves	from 41% to 83%

LE in Millions

6.5 IMPLEMENTATION GUIDELINES

6.5.1 Resources

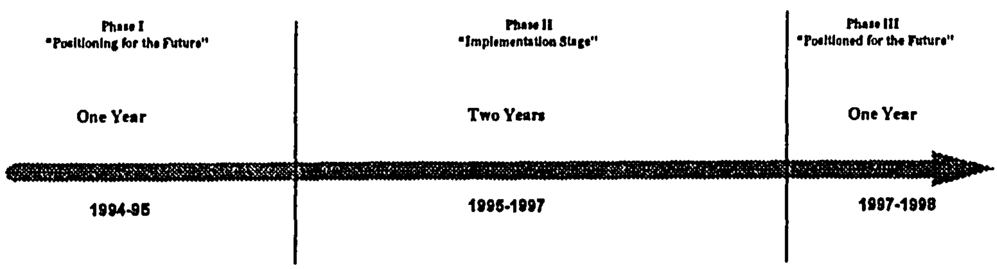
The funding to accomplish these recommendations will be required from USAID and from ARENTO's earnings. This investment should pay for itself when the increase in value of a successfully commercialized ARENTO is considered.

6.5.2 Action Plan Reform Timeline

A realistic timeline for the accomplishment of the three phases approach is shown in Exhibit 6-45

EXHIBIT 6-45

PHASES OF TELECOM SECTOR POLICY REFORM



APPENDIX A
PUBLIC LAW NO. 153 ISSUED IN 1980
ESTABLISHING THE
ARAB REPUBLIC OF EGYPT NATIONAL
TELECOMMUNICATIONS ORGANIZATION
(ARENTO)

LAW No. 153 FOR THE YEAR 1980
ESTABLISHING THE A.R.E. NATIONAL TELECOMMUNICATIONS ORGANIZATION

On behalf of the People
H.E. the President
The People's Assembly has passed the following law, which we have issued.

ITEM 1

An authority is established named "The A.R.E. National Telecommunications Organization". The Authority has a corporate entity, and is supervised by H.E. the Minister of Telecommunications. It is managed in a centralized, unified control which is located in Cairo. It has branches throughout the Arab Republic of Egypt. The regulations in this law apply to this Authority.

ITEM 2

The Authority is exclusively responsible for the establishment and operation of the telecommunications network on the national level and connecting the national network with the international networks within the general political and economic National Plan. To achieve this, the Authority executes the following:

1. Establishing telecommunication networks all over the Arab Republic of Egypt.

2. Offering telephone, wires and wireless services.

3. Managing and maintaining structures and equipment required to offer these services.

4. Executing the required projects to achieve its objectives and update its services to catch up with the international standards in these fields.

5. Cooperating with the nations and international organizations to connect the Arab Republic of Egypt with the outside world.

ITEM 3

The Authority may carry out all transactions which may enable it to achieve its goals. The Authority may set plans and programs set forth and management procedures that suit its activities in accordance with the regulations of this Law regardless of the State administration rules and regulations.

ITEM 4

The Authority to achieve its objectives - without contradicting the regulations of ITEM 2 - may establish stock companies, either solely or with other partners, after the prior approval of H.E. the Minister of Telecommunications. The shares of these companies may be traded immediately after the companies' establishment, with the Authority's employees' priority in purchasing these shares.

ITEM 5

The Authority's capital is composed of:

1. Funds of the General Telecommunications Organization established by Presidential Decree No. 709 for the year 1957 establishing the General Egyptian Authority for Telecommunications Affairs.

2. The amounts allocated by the State.

ITEM 6

The Authority's resources are composed of:

1. The amounts allocated by the State in the National Budget.

2. The revenues resulting from the Authority's activity and the services rendered to others whether locally or internationally.

3. The difference in price of performing the services due to the Authority in accordance with the regulations of Third Paragraph of ITEM 12.

4. The loans acquired on behalf of the Authority.

5. Grants and aids.

6. Revenue of the fines inflicted by Law for breaching the regulations applied by the Authority.

ITEM 7

The Authority's funds are considered public funds.

ITEM 8

The Authority has a special budget prepared in accordance with its internal regulations regardless of the laws and regulations organizing the General National Budget. The Authority also has a special account wherein it deposits its resources.

The profit in the Authority's budget is carried forward from one year to the next. The Authority's financial year states simultaneously with the States financial year beginning and ends simultaneously with it.

ITEM 9

The Authority in order to obtain its rights and dues, may make administrative seizure procedures in accordance with the Law concerning administrative seizures.

ITEM 10

Being exempt from the Importation and Foreign Currency Laws and Regulations, the Authority may within its budget import by itself or through others without license any production requirements, materials, machinery, equipment spare parts and means of transportation which it may need for its operation in accordance with the rules set by the internal regulations of the Authority.

ITEM 11

The tools, equipment, materials and technical sets imported by the Authority for operating its projects are exempt from customs, duties, taxes and other fees. This is based on inspection and the Authority's certification that the exempted goods are imported and necessary for executing its projects or its operating activities. Taxes and duties must be paid for these exempt goods if any transactions were disposed of to others within five years from date of their exemption.

ITEM 12

The Authority's Board of Directors proposes the rates for the services it renders in accordance with the correct standards of cost accounting and the bases approved by the Board of Directors.

A Ministerial Decree fixing these rates is issued by H.E. the Minister of Telecommunications after its proposal to the Ministerial Council.

In case the state fixes these rates at a lower level below the authorized rates, the General National Budget will subsidize the resulting deficit which must be entered in the Authority's Budget for the forthcoming financial year.

ITEM 13

The Authority allocates the investment allocations that are indicated in its Budget for the studies and researches that are related to its activity, which it handles by itself or delegates other authorities in handling them.

ITEM 14

The Administrative authorities specialized in the building affairs are responsible to notify the authority with the licenses for buildings whose height equals or exceeds 30 meters. The Authority may in such cases make the technical installations in such buildings in order to facilitate telecommunications.

ITEM 15

The Authority is managed by:

The Board of Directors
Managers Board
Chairman

ITEM 16

The Chairman of the Authority is appointed by a Presidential Decree that specifies his salary and allowances.

ITEM 17

The Authority has a Board of Directors headed by the Chairman and formed of the following members:

1. Three members of the Authority's managers who are chosen by H.E. the Minister of Telecommunications.

2. Six members of experts concerned with the Authority's activity, who are appointed by a Ministerial Decree by H.E. the Minister of Telecommunications, specifying their remunerations for a period not to exceed two, renewable years.

3. A member of the Authority's General Syndicate appointed by its Board of Directors.

The Board of Directors may form among its members a committee or more to be temporarily responsible for some of its responsibilities. The Board may also delegate to the Managers' Board, Chairman, or a Board Member temporarily some of its responsibilities or in performing a specific task.

ITEM 18

The Authority's Board of Directors is the highest level of management controlling its affairs. The Board may issue decisions which it may deem necessary to achieve the Authority's goals. The Board carries out its responsibilities as indicated in this Law, specifically:

1. Setting forth plans and programs of the Authority within the National General Plan.

2. Laying down the Authority's Organizational Chart.

3. Approving rates, tariffs and costs of services offered by the Authority.

4. Setting the regulations for the contracts made between the Authority and its customers.

5. Establishing the Authority's internal regulations regarding the technical, financial, management, purchases and warehousing affairs, as well as other organization regulations.

6. Proposing the personnel regulations for the employment system. employees' promotions, salary scale, allowances, remunerations and all their positions affairs. The regulations are issued by a Ministerial Decree by H.E. the Minister of Telecommunications.

7. Establishing personnel systems for the health, social, cultural and sports care for the employees.

8. Establishing a control system and performances evaluation criteria according to the economic circumstances.

9. Approving the Authority's annual budget and planned final account.

10. Proposing local and international loans acquisition.

11. Accepting grants and donations offered to the Authority which do not contradict with its objectives.

12. Signing Agreements that fall within the Authority's responsibilities.

13. Studying the periodical and follow-up reports presented on the Authority's operation.

14. Studying any issues presented by H.E. the Minister of Telecommunications or the Authority's Chairman to the Board concerning any problems that fall within its responsibilities.

<u>ITEM 19</u>

The Chairman of the Board of Directors convenes a meeting at least once a month. No official meeting can be held without a quorum. The Board issues its decisions by quorum voting. If the two voting parties' numbers are equal, the Chairman's party supersedes.

The Board must be convened if half of the members at least request the meeting. It is to be held at the Authority's premises or at any location of its branches. The Board may invite to its meetings whomever it deems necessary to utilize his experience without having the right to vote.

ITEM 20

The Authority's Chairman passes the Board of Directors decisions on to H.E. the Minister of Telecommunications within three days from the date of issuing them for his approval. These decisions are considered valid unless H.E. the Minister objects to them within fifteen days from the date of presenting them to H.E. the Minister, and in this case the Board may re-approve them with a 3/4 of the members majority.

ITEM 21

The Managers' Board is formed by a ministerial Decree by H.E. the Minister of Telecommunications indicating therein the system and procedures for its operations.

The Managers' Board may invite any of the Authority's employees or any expert to its meeting whom it deems necessary to utilize his experience.

ITEM 22

The Manager's Board is the main authority in the field of operation, follow-up, and supervision of executing the projects carried out by the Authority. The Manager's Board handles the following specializations:

1. Establishing the Draft regulations of the Authority.
2. Providing the studies and researches required by H.E. the Minister of Board of Directors.
3. Studying the problems indicated in the Board of Directors' Agenda, making remarks, and providing studies and proposals concerning them prior to their presentation to the Board of Directors.
4. Studying the Authority's projects, establishing the Time Schedule for executing them and setting priorities.
5. Studying periodical and follow-up reports and analyzing them prior to their presentation to the Board of Directors.
6. Establishing policy for employees training.
7. Proposing the required methods to develop the Authority's activity and updating it to cope with the latest international developments.
8. Preparing an annual report to be presented to H.E. the Minister and the Authority's Board of Directors on the Operation Development, comparing the Actual Achievements with the Planned Programs, and trouble-shooting of the obstacles affecting performance and the proposed solutions for overcoming them.
9. Any other responsibilities required by the Authority's internal regulations.

The Chairman represents the Authority in court and in its transactions with others.

ITEM 24:

The Authority's Chairman is responsible for:

1. Execúting the decisions of the Board of Directors and the Managers' Board.

2. Managing the Authority handling its affairs, developing the operating systems, and supporting its departments.

3. Providing revised reports, proposals and decisions issued by the Managers' Board to the Board of Directors to vitalize the role of the Board and enable it to carry out its duties as required by Law.

4. Providing H.E. the Minister of Telecommunications and the State authorities with the required data, information and documents.

5. Any other responsibilities that may be required by the Authority's Internal Regulations.

The Chairman may delegate one or more managers in handling some of his responsibilities.

ITEM 25:

H.E. the Minister of Telecommunications may delegate temporarily someone to replace the Chairman in case of his absence or his position being vacant.

ITEM 26

The Regulations indicated in ITEM 18 are issued by a Decree form H.E. the Minister of Telecommunications after approval of the Board of Directors regardless of the government regulations and systems.

The following must be considered when issuing these regulations:

1. Connecting the salary with the type and nature of work and its performance under the various circumstances.

2. The value of the travel allowance and transportation allowances for the Authority's employees as categorized according to the levels or original remunerations shall not exceed actual costs they pay.

3. Following the Unified Accounting System Regulation.

ITEM 27

The Authority replaces the Telecom Authority which has established by referenced Presidential Decree No. 709 for the year 1957 in any dues and liabilities. The employees of the Previous Telecom Authority are automatically transferred with their existing scales to the new Authority needless of any other procedure.

Until the regulations under reference in No. 6 under ITEM 18 of the Law is being issued, No.2 of the previous ITEM will be applicable. Otherwise, the valid rules and regulations in ARENTO continue to be operative without contradicting the new Law Regulations.

ITEM 28

Referenced Presidential Decree No. 709 for the year 1957 is hereby canceled. Any other regulations contradicting this Law is henceforth canceled.

ITEM 29

This Law is published in the Official Gazette and is operating starting the day following its publishing.

This Law is stamped with the National Stamp and is executed as all other Laws.

Issued at the Presidency on (2 Ramadan 1400 Hij) 14 July 1980.

ANWAR El SADAT

APPENDIX A1
Shalakany Law Office Interpretation of Public Law No. 153, Related Questions and Reports on ARENTO

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Outgoing :

Date :

14 April 1994

Mr. Ronald Behrns
Senior Accountant
K&M Engineering and Consulting Corporation
6 Salah El Din Street
1st Floor
Zamalek, Cairo

Dear Mr. Behrns,

Attached please find a report on the Arab Republic of Egypt National Telecommunications Organization (ARENTO), an Egyptian general organization.

Law No. 61/1963 is the general law governing the establishment of General Organizations. It provides that a general organization will be established by a presidential decree to operate a public utility and will have an independent juridical personality.

In the light of the above law, ARENTO was established as a general organization under Law No. 153/1980.

Moving on to your specific areas of interest, we wish to bring the following to your attention:

1. Law No. 153/1980 ("the Law") is a constitutional law, under the provisions of which ARENTO is an independent juridical person whose board of directors is fully empowered to run its business without any special approvals, save when board resolutions touch on personnel regulations or loans.

256

In view of the fact that ARENTO is a general organization running the telecommunications network within the framework of the State's general political and economic plan, its is subject to the political supervision of the Minister of Transport who is in a position to interfere in ARENTO's affairs.

2. The funds of ARENTO and its assets are deemed to be public funds as they are allocated by law for public welfare. Such funds may not be disposed of, attached or owned by prescription.

3. As mentioned in the attached report, board resolutions must be submitted to the Minister who may approve the resolution within 15 days. In the event the Minister requests a review of a resolution, the board may accept or reject the request with a three-quarters majority of its members. In such case, the resolution shall be valid without necessity to re-submit same to the Minister again.

   It is clear from this mechanism that ARENTO comes under the supervision of the minister in his political capacity and not in his administrative capacity.

4. The Suez Canal Authority was established in accordance with a special law as a public authority, and is not subject to the provisions of the General Organizations Law.

   The Authority follows appropriate management and exploitation technique applied by commercial projects. Its funds are deemed to be private funds.

   On the other hand, EgyptAir is a General Authority with a juridical personality coming under the supervision of the Prime Minister. Its funds are deemed to be private funds.

5. As mentioned in the attached report, ARENTO has an independent juridical personality and enjoys financial autonomy. It has its own budget and accounts and is entitled to establish companies, whether singly or with third parties. The funds of the companies it establishes are deemed to be private funds.

   Pursuant to General Organizations law No. 61/1963 , a general organization acquires a juridical personality as soon as it is established by law or presidential decree.

6. ARENTO has a separate budget not linked to the State's budget. The said budget is approved by the board of directors of ARENTO. The budget is subject to the review of the Central Audit Agency.

7. The correct standards of cost accounting means the rules of accounting generally practiced in Egypt.

257

8. We suggest that the development of ARENTO's activity should be effected through the establishment of a joint stock company to undertake ARENTO's commercial activities.

Sincerely yours,

Mahmoud Safwat

LO11/MISC/W

SHALAKANY LAW OFFICE
LEGAL ADVISERS

Report on ARENTO

First: Establishing Law:

1. Law:

ARENTO was established as a general organization under Law No. 153/1980 ("the Law"), which was enacted in accordance with the constitutional rules in force.

2. ARENTO's Powers:

2.1 ARENTO is a juridical person coming under the supervision of the Minister of Transport ("the Minister") and is operated in a unified centralized manner.

2.2 ARENTO is exclusively empowered to establish and operate telecommunications networks at the national level and to link them up with international networks within the framework of the State's general political and economic plan.

2.3 ARENTO may carry out all dispositions and transactions as are necessary for the fulfillment of its objectives, and may lay down the plans and programs and apply the management techniques compatible with its activities in accordance with law and without being bound by governmental rules and regulations.

2.4 To this end, the Law allows ARENTO - with the approval of the Minister- to establish joint stock companies, either alone or together with other partners, whose shares shall be negotiable promptly upon their incorporation. ARENTO's employees shall have a pre-emptive right to subscribe to such shares.

3. Self-Management:

It is clear from the foregoing that ARENTO has the exclusive right to establish and operate communication networks, that it is entitled, for the fulfillment of its object, to engage in whatever dispositions it deems necessary, and that it is also entitled to establish companies either singly or jointly with third parties.

Article (15) of ARENTO's establishing Law provides that it shall be managed by a board of directors, a board of managers and a chairman of the board of directors.

3.1 Board of Directors:

The board of directors is the highest authority responsible for running ARENTO's affairs and conducting its business. As such, it is entitled to issue whatever resolutions it deems necessary for the realization of ARENTO's objects. The board exercises its mandate in the manner prescribed in the Law.

Board members are appointed by a decree of the Minister, provided the appointment of the employees' representative shall be on the basis of a board nomination. The board of directors shall:

3.1.1 Lay down ARENTO's plans and programs within the scope of the general plan of the State.

3.1.2 Determine ARENTO's organizational structure.

3.1.3 Approve price rates, tariffs and fees for the services provided by ARENTO.

3.1.4 Lay down the rules governing contracts ARENTO concludes with the recipients of its services.

3.1.5 Formulate ARENTO's internal regulations.

3.1.6 Establish the system for medical, social, cultural and sports care for employees.

3.1.7 Lay down the system of control, follow up and performance appraisal in accordance with economic criteria.

3.1.8 Approve the annual draft balance sheet and closing account.

3.1.9 Accept gifts and donations presented to ARENTO which do not contradict its object.

3.1.10 Conclude agreements falling within the scope of its functions.

3.1.11 Review periodic reports and follow up the proper conduct of work.

3.1.12 Look into such matters as fall within the scope of its powers as the Minister of Transport or the chairman may decide to put to the board's review.

3.1.13 Propose laying down the regulations related to the appointment and promotion of employees, the determination of their wages, allowances and bonuses and all related personnel matters. Such regulations shall be issued by a decree of the Minister.

3.1.14 Propose concluding internal and external loans.

Article (20) prescribes the mechanism by which board resolutions become effective:

* Resolutions are to be submitted to the Minister within three days from the date of their issuance for approval.

* The Minister may approve resolutions within 15 days from the date of their submission, and they shall become enforceable promptly upon their approval as aforesaid, or

* Allow 15 days to elapse without issuing his approval, in which case the resolutions become enforceable promptly upon the expiry of this period, or

* Within the said 15-day period, request that such resolutions be re-submitted to the board's review. The Minister may require for example the insertion of new provisions to the resolutions or the deletion or amendment of certain of their contents. Alternatively, he may simply object to the resolutions.

* In the event the Minister requests a review, the board may accept or reject the request with a three-quarters majority of its members. In such case, the resolutions shall be valid without necessity to re-submit them to the Minister again.

It is clear from the foregoing that the Law gives the board autonomous powers to manage ARENTO and conduct its business speedily, as borne out by the non-binding force of the Minister's objections to its resolutions.

3.2 However, by way of exception to the foregoing, the board may not unilaterally issue resolutions touching on the following matters:

3.2.1 Personnel Regulations:

The board is entitled only to propose these regulations. Its proposal only becomes valid after the Minister issues a decree adopting same. According to Article (26) of the Law, personnel regulations are issued by a decree of the Minister, after the approval of ARENTO's board of directors, regardless of governmental rules and regulations. It follows from this that if the board approves the regulations and the Minister objects thereto, the board must take his objections into consideration by revising its proposals in the light of such objections in order to obtain the Minister's approval and his decree issuing the regulations.

3.2.2 Loans:

The board submits its proposals in respect of loans, whether internal or external, to the Minister, who shall obtain the approval of the competent authorities in accordance with the provisions of:

* Para (3) of Article (58) of *Conseil d'Etat* Law No. 47/1972, which rules that:

  "It is prohibited for any Ministry, general organization or any department of government to conclude any contract, or to accept or permit any contract, conciliation or arbitration or enforce any arbitral award the subject matter of which exceeds five thousand pounds without consulting the competent administrative authority".

* Article 121 of the Egyptian Constitution of 1970, which rules that:

262

"The executive branch of government may not conclude loans or engage in a project which will result in expending sums from the State treasury at a future time except with the approval of the People's Assembly".

3.3 Board of Managers:

The board of managers is the main authority when it comes to operating ARENTO, following up its day to day business and supervising the execution of its projects.

According to Article (22) of the Law, the board of managers is responsible for preparing ARENTO's draft regulations, for conducting the studies and research requested by the Minister or the board of directors as well as for looking into the items on the agenda of the board of directors, commenting thereon and presenting studies and proposals in connection therewith before the agenda is reviewed by the board of directors, in addition to the other powers referred to in the said Article.

In other words, the board of managers' functions are supervisory rather than executive.

3.4 Chairman of the Board of Directors:

The chairman, who is appointed by presidential decree, represent ARENTO before the judiciary and in its relations with third parties.

Article (24) invests the chairman with the authority to implement the resolutions of the board of directors and the board of managers, to manage ARENTO and conduct its affairs and to furnish the board of directors, the Minister of Transport and the agencies of the State with reports, studies and proposals. Paragraph (5) of the same Article provides that additional functions may be assigned to the chairman pursuant to the rules set forth in ARENTO's internal regulations.

Whereas the board of directors is empowered to lay down ARENTO's internal regulations relative to all technical, financial and administrative affairs, as well as those governing purchases and warehouses pursuant to Article (18), therefore the chairman may, after obtaining the board's approval, amend such regulations to invest himself with greater administrative and executive powers, provided the amendments are compatible with the Minister's Decree No. 108/1983 as amended by Decree No. 467/1992 issuing the financial regulations, the Minister's Decree No. 200/1982 concerning personnel regulations, and Decree No. 215/1973 issuing the regulations and procedures of buying, selling and storing.

Furthermore, the Law gives the chairman the right to delegate some or all of his responsibilities to one or more of ARENTO's managers.

4. Conclusion:

It is clear from the foregoing that the Law invests the board of directors, the board of managers and the chairman with all the powers necessary to manage ARENTO directly. Perhaps the most graphic illustration of the high degree of autonomy they enjoy is in those cases where the Minister exercises his right to object to board resolutions and returns them to the board for a re-vote. Unless the resolution touches on personnel regulations or loans (in which case it requires the approval of the Minister and the People's Assembly as previously mentioned), the board may, pursuant to Article (20) of the Law, reapprove the resolution -in the same form objected to by the Minister- with a three-quarters majority of its members.

Second: Public Funds:

Article (7) of the Law provides that ARENTO's funds are deemed to be public funds.

Egyptian law defines public funds as the real property and movables owned by the State and by public juridical persons, which are allocated for public welfare in fact or by virtue of a law, edict or decree of the competent minister. Such funds may not be disposed of, attached or owned by prescription.

On the basis of the foregoing, for funds to be considered public funds, they must:

* Be owned by a public juridical person.
* Be allocated for public welfare.

Whereas according to Article (5) of the Law all of ARENTO's capital is made up of State funds, and ARENTO's recourses are made up of the sums allocated to it by the State in the general budget, in addition to the other recourses mentioned in Article (6) of the Law, and its funds

264

are allocated to the provision of telecommunication services which serve public welfare, therefore ARENTO's funds are deemed to be public funds.

However, the fact that its funds are public funds does not prevent ARENTO from owning private funds which are subject to the ordinary rules of ownership and transaction and which may be owned by prescription or attached in accordance with general rules.

The same applies to the shares owned by ARENTO in its subsidiaries or in the companies which it establishes alone or jointly with other partners pursuant to Article (4) of the Law. This is confirmed by Article (7) of Investment Law No. 230/1989, which rules that:

"Projects are deemed to be private sector projects, whatever their legal form and whatever the legal nature of the Egyptian funds contributed thereto, and shall not be subject to the laws and regulations governing the public sector or its employees"

Third: <u>The Relationship Between ARENTO and the Government</u>:

1. ARENTO is a general organization (that is, a public juridical person) coming under the supervision of the Minister of Transport. It is operated in a centralized unified manner and has its own balance sheet that is prepared without regard to the laws and regulations applied in the preparation of the State's budget. ARENTO also has a special account wherein it deposits its resources. The surplus shown in ARENTO's balance sheet is carried over from one year to the next, and its financial year begins with the State's financial year and ends with it.

2. The Minister has two functions, one political and one administrative. ARENTO comes under his supervision in his political capacity, not in his administrative capacity.

3. ARENTO's separate budget gives it the financial independence necessary to carry out its objects (except with regard to loans). Moreover, ARENTO is subject to the tax on corporate profits in pursuance of Article (111) of Law No. 178/1992.

   Thus ARENTO is a general organization which comes under the supervision not of the Ministry of Transport but of the Minister of Transport from the political point of view, and is deemed to be a public utility of the State in as much as its activity is the provision of economic and commercial services.

Fourth: Juridical Personality:

Article (1) of the Law provides that ARENTO is a juridical person. As such, it enjoys its own independent patrimony, and has a name, domicile and nationality.

It should be noted that general organizations in general acquire a juridical personality as soon as they are established by presidential decree and their powers determined within the framework of the objects for which they are formed.

Fifth: Separate Budget:

Article (8) of the Law rules that:

"ARENTO shall have a separate balance sheet prepared in accordance with the rules laid down in its internal regulations, regardless of the laws and regulations governing the preparation of the State's budget. ARENTO shall also have a special account in which to deposit its resources. The surplus shown in ARENTO's balance sheet shall be carried over from one year to the next and its financial year begins with the State's financial year and ends with it".

Moreover, the power to approve the budget is vested in the board of directors by para (a) of Article (18) of the Law. The term *"separate balance sheet"* as used in this text means that ARENTO has full freedom to use its resources as it sees fit and that the role of the Finance Ministry, in its capacity as the body with supervisory powers over the financial activity of the State, is limited to making comments, provided the People's Assembly shall have the final say in any dispute arising between ARENTO and the Ministry. The provision in the text for the carrying over of ARENTO's surplus from one year to the next means that this surplus does not go to the State budget but remains under the full control of ARENTO, which may use it in any manner conducive to the realization of its objects.

It should be noted in this regard that, according to the opinion issued on November 18, 1981 (file No. 1565/3/86) by the General Assembly of the Departments of Opinion and Legislation of the *Conseil d'Etat,* while the legislator invested ARENTO with the power to prepare its balance sheet without being bound by the laws and regulations governing the preparation of the State budget, the exception is limited to the stage of preparation and does not extend to the remaining stages through which the balance sheet must proceed, be it the stage of approval, of implementation or of auditing. It follows that the Finance Ministry is held to submit the budget prepared by ARENTO, together with any comments it may have thereon, to the People's

Assembly so that this latter may be the arbiter between ARENTO and the Finance Ministry in regard to these comments.

However, the practical application of the provisions of Articles (8) has resulted in the following:

(a) ARENTO's board of directors prepares the balance sheet in draft form.

(b) The draft balance sheet is presented to the Minister in the form of a board resolution. The Minister in his turn adds such sums and allocations as he deems necessary to the balance sheet.

(c) After its approval by the Minister, the draft balance sheet is sent on to the Finance Minister who adds his comments thereon before submitting it to the People's Assembly. Most of these comments relate to the utilization of ARENTO's surplus for the account of other agencies and organizations instead of retaining them in ARENTO's account.

Sixth: ARENTO's service charges and basis of accounting:

1. Service Charges:

Article (12) and para (3) of Article (18) of the Law prescribes the following pricing methods:

(a) The board of directors proposes the price rates, tariffs and charges for the services provided by ARENTO in accordance with the correct standards of cost accounting and on the bases approved by the board of directors and sent to the Minister.

(b) The Minister presents the rates to the Council of Ministers.

(c) The Minister issues a decree determining the rates to be applied.

In the event the State fixes service rates at less than the approved levels the resultant difference shall be borne by the State budget.

2. Correct Standards of Cost Accounting:

Articles 172 to 177 inclusive of the financial regulations issued by the Minister's Decree No. 108/1983 as amended by decree No. 467/1983 requires ARENTO's accounts to be held in

267

accordance with the nature of its activities and the proposals of expert service consultants with which ARENTO enters into contract, and requires it also to apply correct standards of cost accounting in order to correctly calculate the cost of services.

Central Audit Agency Law No. 144/1988 organizes the method by which the agency will audit ARENTO's accounts.

By correct standards of cost accounting is meant the rules of accounting generally practiced in Egypt and which ARENTO decides to use as a basis for its accounting in general, including the calculation of the costs of providing services under the control of Central Audit Agency.

Seventh: Comparison between ARENTO and the Suez Canal Authority:

The Suez Canal Authority is established according to Law No. 30/1975, which rules as follows:

1. The Suez Canal Authority is responsible for running the Suez Canal utility and for managing, exploiting, maintaining and improving it. To this end the Authority may, whenever necessary, establish projects related to or connected with the utility, participate in their establishment or encourage the establishment of same.

2. The Suez Canal Authority is a public authority enjoying an independent juridical personality. It is governed by the provisions of this Law exclusively and is not subject to the provisions of General Organizations Law No. 60/1971.

3. The Authority is managed by a board of directors appointed by presidential decree.

4. The Authority follows appropriate management and exploitation techniques normally applied by commercial projects.

5. The Authority has an independent budget which it shall prepare in accordance with the rules applied in commercial projects, without prejudice to the examination by the Central Audit Agency of the Authority's closing account. Its financial year commences on the first of January and ends on the 31st of December of each year.

6. The Authority levies and collects navigation, piloting, towing, moorage and other fees in accordance with laws and regulations.

7. In order to carry out its duties, the Authority may exercise all the necessary powers and authorities, and may, in particular, acquire ownership of land and buildings by any means including the power of eminent domain. The Authority may lease out the land or buildings it owns to third parties and may lease land and buildings owned by third parties, whether to fulfill the objects for which it was established, to realize the welfare of its employees and workers or to establish projects and utilities connected to the Canal or which may be necessary for its proper running.

8. The Authority's funds are deemed to be private funds.

From the above, it is clear that the differences between ARENTO and the Authority are represented essentially in the following:

(a) The Authority's funa are private funds, while those of ARENTO are public funds.

(b) Because its funds are private, the Authority has the right to effect any dispositions in order to establish projects connected to its activity, either with third parties or by itself. On the other hand, ARENTO may only exercise its right to execute projects or to establish joint stock companies, singly or with third parties, with the approval of the Minister.

(c) The Authority has an independent budget to which the rules of commercial projects are applied, subject only to the supervision of the Central Audit Agency. Moreover its financial year is different from that of the State. While ARENTO also has a separate budget, it is subject to the comments of the Finance Minister and any dispute arising between him and ARENTO over the budget is subject to the determination of the People's Assembly. Moreover, its financial year is the same as that of the State.

(d) The Authority is not subject to the General Organizations Law, Accordingly, it is not administratively answerable to a specific Minister or Ministry. Rather, it is an investment agency managing a public utility owned by the State. Although ARENTO also runs a public utility owned by the State, it is subject to the General Organizations Law.

Eighth: Comparison between ARENTO and EgyptAir:

1. EgyptAir is subject to Law No. 23/1960 (as amended by Law No. 241/1960), to Law No. 11/1966, to Law No. 116/1975, to Law No. 97/1983 as well as to presidential decree No. 600/1975 and Prime Minister's Decree No. 159/1982.

2. According to the above mentioned laws and decrees, EgyptAir is a general authority with a juridical personality coming under the supervision of the Prime Minister.

3. EgyptAir is entitled to pursue its authorized activity itself or to pursue some of these activities through such subsidiary economic units as its board of directors may decide to establish. In respect of the activity it decides to carry out itself, EgyptAir is considered to be an economic unit.

4. EgyptAir has a board of directors which is responsible for conducting its business and running its affairs.

5. EgyptAir's resources shall be made up of the proceeds of the net profits realized by its subsidiary economic units and its share in the sums payable in consideration of supervision and management prescribed in the distribution of the profits realized by its subsidiary economic units.

6. EgyptAir has a separate budget to which the rules of commercial projects are applied. This means that EgyptAir's profits devolve to it.

7. Article (14) of Law No. 97/1983 rules that the funds of public sector organizations are among the privately owned funds of the State, unless the respective decree establishing an organization stipulates otherwise. Whereas, the legislative texts organizing EgyptAir are silent on the question of its funds, therefore the said Article (14) applies and EgyptAir's funds are deemed to be privately owned funds of the State.

   Thus ARENTO differs from EgyptAir in that the former's funds are public funds while those of EgyptAir are privately owned by the State.

Ninth: Development of ARENTO's Activity:

As previously mentioned, ARENTO is exclusively empowered to establish and operate telecommunication networks at the national level and link them up with international networks within the framework of the State's political and economic plan. To this end, it is allowed by law -and with the approval of the Minister of Transport- to establish joint stock companies, either on its own or with other partners. The shares of these companies may be traded upon their incorporation, and ARENTO's employees have a pre-emptive right to subscribe thereto.

Thus ARENTO's activity may be divided into two areas:

- One area relates to establishing and operating local telecommunication networks and linking them with international networks.

- The second to presenting telecommunication services to the public and consumers, installing and maintaining equipment and collecting fees and subscriptions.

Since area one touches on the general policy of the State and its international relations as well as on the telecommunication infrastructure, it must be protected and the equipment required to pursue this aspect of ARENTO's activity must remain the property of the State.

As to area two, which is ARENTO's commercial activity, this may be assigned to a management company established in the form of an Egyptian joint stock company, in the capital of which ARENTO will own 49% and other shareholders the rest. This company would manage the commercial activity, including maintenance works for equipment, units and distribution centres for telephone services.

From the legal point of view, assigning management of the telecommunication utility to the new joint stock company should be effected through a management contract which addresses all the conditions of management, pricing and such other conditions as are necessary to comply with State policy in this regard.

Presentation Paper on ARENTO

First: Establishing Law:

1. Law:

The National Telecommunications Orgnization ("ARENTO" or the "Organization") was established as a general organization under Law No. 153/1980 (the "Law"), which was enacted in accordance with the constitutional rules in force.

2. ARENTO's Object, Powers, Capital and Resources:

2.1 ARENTO is a juridical person coming under the supervision of the Minister of Transport ("the Minister") and is operated in a unified centralized manner.

2.2 The object and activities of the Organization are to establish and operate telecommunications networks at the national level and to link them up with international networks within the framework of the State's general political and economic plan.

To this end, it:

(a) Establishes telecommunication networks all over the A.R.E.

(b) Extends telephone wires and wireless services.

(c) Manages and maintains structures and equipment necessary to offer such services.

(d) Establishes the required projects to achieve its object.

(e) Cooperates with national and international organizations to connect ARE with the world.

2.3 ARENTO may carry out all dispositions and transactions as are necessary for the fulfillment of its objectives, and may lay down the plans and programs and apply the management techniques compatible with its activities in accordance with law and without being bound by governmental rules and regulations.

2.4 To enable it to do so, the Law allows ARENTO - with the approval of the Minister - to establish joint stock companies, either alone or together with other partners, whose shares shall be negotiable promptly upon their incorporation. ARENTO's employees shall have a pre-emptive right to subscribe to such shares.

2.5 (a) The Organization's capital is composed of:

- The funds of the former General Telecommunication Organization, established by Presidential decree No. 709/1957.
- The amounts contributed by the State.

(b) The Organization's resources are composed of:

- The amounts allocated by the State in the national budget.
- The revenues resulting from its activities and services rendered locally and internationally.
- The subsidies paid by the government to cover the difference between the price rate fixed by the board of directors of the Organization and that fixed by the government).

3. Self-Management:

It is clear from the foregoing that ARENTO has the exclusive right to establish and operate communication networks, that it is entitled, for the fulfillment of its object, to engage in whatever dispositions it deems necessary, and that it is also entitled to establish companies either singly or jointly with third parties.

Article (15) of ARENTO's establishing Law provides that it shall be managed by a board of directors, a board of managers and a chairman of the board of directors.

3.1 Board of Directors:

The board of directors is the highest authority responsible for running ARENTO's affairs and conducting its business. As such, it is entitled to issue whatever resolutions it deems necessary for the realization of

ARENTO's objects. The board exercises its mandate in the manner prescribed in the Law.

Board members are appointed by a decree of the Minister, provided the appointment of the employees' representative shall be on the basis of a board nomination. The board of directors shall:

3.1.1 Lay down ARENTO's plans and programs within the scope of the general plan of the State.

3.1.2 Determine ARENTO's organizational structure.

3.1.3 Approve price rates, tariffs and fees for the services provided by ARENTO.

3.1.4 Lay down the rules governing contracts ARENTO concludes with the recipients of its services.

3.1.5 Formulate ARENTO's internal regulations.

3.1.6 Establish the system for medical, social, cultural and sports care for employees.

3.1.7 Lay down the system of control, follow up and performance appraisal in accordance with economic criteria.

3.1.8 Approve the annual draft balance sheet and closing account.

3.1.9 Accept gifts and donations presented to ARENTO which do not contradict its object.

3.1.10 Conclude agreements falling within the scope of its functions.

3.1.11 Review periodic reports and follow up the proper conduct of work.

3.1.12 Look into such matters as fall within the scope of its powers as the Minister of Transport or the chairman may decide to put to the board's review.

3.1.13 Propose laying down the regulations related to the appointment and promotion of employees, the determination of their wages, allowances and

274

bonuses and all related personnel matters. <u>Such regulations shall be issued by a decree of the Minister</u>.

3.1.14 <u>Propose</u> concluding internal and external loans.

<u>The Relationship between ARENTO's Board of Directors and the Minister of Transport</u>:

Article (20) prescribes the mechanism by which board resolutions become effective:

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* Allow 15 days to elapse without issuing his approval, in which case the resolutions become enforceable promptly upon the expiry of this period, or

* Within the said 15-day period, request that such resolutions be re-submitted to the board's review. The Minister may require for example the insertion of new provisions to the resolutions or the deletion or amendment of certain of their contents. Alternatively, he may simply object to the resolutions.

* In the event the Minister requests a review, the board may accept or reject the request with a three-quarters majority of its members. In such case, the resolutions shall be valid without necessity to re-submit them to the Minister again.

It is clear from the foregoing that the Law gives the board autonomous powers to manage ARENTO and conduct its business speedily, as borne out by the non-binding force of the Minister's objections to its resolutions.

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275

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The board is entitled only to propose these regulations. Its proposal only becomes valid after the Minister issues a decree adopting same. According to Article (26) of the Law, personnel regulations are issued by a decree of the Minister, after the approval of ARENTO's board of directors, regardless of governmental rules and regulations. It follows from this that if the board approves the regulations and the Minister objects thereto, the board must take his objections into consideration by revising its proposals in the light of such objections in order to obtain the Minister's approval and his decree issuing the regulations.

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The board submits its proposals in respect of loans, whether internal or external, to the Minister, who shall obtain the approval of the competent authorities in accordance with the provisions of:

* Para (3) of Article (58) of *Conseil d'Etat* Law No. 47/1972, which rules that:

  "It is prohibited for any Ministry, general organization or any department of government to conclude any contract, or to accept or permit any contract, conciliation or arbitration or enforce any arbitral award the subject matter of which exceeds five thousand pounds without consulting the competent administrative authority".

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The board of managers is the main authority when it comes to operating ARENTO, following up its day to day business and supervising the execution of its projects.

According to Article (22) of the Law, the board of managers is responsible for preparing ARENTO's draft regulations, for conducting the studies and research requested by the Minister or the board of directors as well as for looking into the items on the agenda of the board of directors, commenting thereon and presenting studies and proposals in connection therewith before the agenda is reviewed by the board of directors, in addition to the other powers referred to in the said Article.

In other words, the board of managers' functions are supervisory rather than executive.

3.4 Chairman of the Board of Directors:

The chairman, who is appointed by presidential decree, represent ARENTO before the judiciary and in its relations with third parties.

Article (24) invests the chairman with the authority to implement the resolutions of the board of directors and the board of managers, to manage ARENTO and conduct its affairs and to furnish the board of directors, the Minister of Transport and the agencies of the State with reports, studies and proposals. Paragraph (5) of the same Article provides that additional functions may be assigned to the chairman pursuant to the rules set forth in ARENTO's internal regulations.

Whereas the board of directors is empowered to lay down ARENTO's internal regulations relative to all technical, financial and administrative affairs, as well as those governing purchases and warehouses pursuant to Article (18), therefore the chairman may, after obtaining the board's approval, amend such regulations to invest himself with greater administrative and executive powers, provided the amendments are compatible with the Minister's decree No. 108/1983 as amended by decree No. 467/1992 issuing the financial regulations, the Minister's Decree No. 200/1982 concerning personnel regulations, and Decree No. 215/1973 issuing the regulations and procedures of buying, selling and storing.

Furthermore, the Law gives the chairman the right to delegate some or all of his responsibilities to one or more of ARENTO's managers.

3.5 Article (8) of the Law states that the Organization has a separate balance sheet prepared in accordance with its internal regulations, regardless of the laws and regulations organizing the State budget, and has a special account in which to deposit its resources. Its profits are carried over from one year to the next.

4. <u>Conclusion</u>:

It is clear from the foregoing that the Law invests the board of directors, the board of managers and the chairman with all the powers necessary to manage ARENTO directly. Perhaps the most graphic illustration of the high degree of autonomy they enjoy is in those cases where the Minister of Transport exercises his right to object to board resolutions and returns them to the board for a re-vote. Unless the resolution touches on personnel regulations or loans (in which case it requires the approval of the Minister and the People's Assembly as previously mentioned), the board may, pursuant to Article (20) of the Law, reapprove the resolution -in the same form objected to by the Minister- with a three-quarters majority of its members.

Second: <u>Public Funds:</u>

Article (7) of the Law provides that ARENTO's funds are deemed to be public funds.

Egyptian law defines public funds as the real property and movables owned by the State and by public juridical persons, which are allocated for public welfare in fact or by virtue of a law, edict or decree of the competent minister. Such funds may not be disposed of, attached or owned by prescription.

On the basis of the foregoing, for funds to be considered public funds, they must:

* Be owned by a public juridical person.

* Be allocated for public welfare.

278

Whereas according to Article (5) of the Law all of ARENTO's capital is made up of State funds, and ARENTO's recourses are made up of the sums allocated to it by the State in the general budget, in addition to the other recourses mentioned in Article (6) of the Law, and its funds are allocated to the provision of telecommunication services which serve public welfare, therefore ARENTO's funds are deemed to be public funds.

However, the fact that ARENTO's funds are public funds does not prevent ARENTO from owning private funds which are subject to the ordinary rules of ownership and transaction and which may be owned by prescription or attached in accordance with general rules.

The same applies to the shares owned by ARENTO in its subsidiaries or in the companies which it establishes alone or jointly with other partners pursuant to Article (4) of the Law. This is confirmed by Article (7) of Investment Law No. 230/1989, which rules that:

"Projects are deemed to be private sector projects, whatever their legal form and whatever the legal nature of the Egyptian funds contributed thereto, and shall not be subject to the laws and regulations governing the public sector or its employees".

The capital, assets and resources of the joint stock companies which the Organization establishes alone or jointly with other persons are considered private funds.

Third: Juridical Personality:

As mentioned before, Article (1) of the Law provides that ARENTO is a juridical person. As such, it enjoys its own independent patrimony, and has a name, domicile and nationality.

It should be noted that general organizations in general acquire a juridical personality as soon as they are established by presidential decree and their powers determined within the framework of the objects for which they are formed.

Fourth: Separate Budget:

Article (8) of the Law rules that:

"ARENTO shall have a separate balance sheet prepared in accordance with the rules laid down in its internal regulations, regardless of the laws and regulations governing the preparation of the State's budget. ARENTO shall also have a special account in which to deposit its resources. The surplus shown in ARENTO's balance sheet shall be

279

carried over from one year to the next and its financial year begins with the State's financial year and ends with it".

Moreover, the power to approve the budget is vested in the board of directors by para (a) of Article (18) of the Law. The term *"separate balance sheet"* as used in this text means that ARENTO has full freedom to use its resources as it sees fit and that the role of the Finance Ministry, in its capacity as the body with supervisory powers over the financial activity of the State, is limited to making comments, provided the People's Assembly shall have the final say in any dispute arising between ARENTO and the Ministry. The provision in the text for the carrying over of ARENTO's surplus from one year to the next means that this surplus does not go to the State budget but remains under the full control of ARENTO, which may use it in any manner conducive to the realization of its objects.

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However, the practical application of the provisions of Articles (8) has resulted in the following:

(a) ARENTO's board of directors prepares the balance sheet in draft form.

(b) The draft balance sheet is presented to the Minister in the form of a board resolutions. The Minister in his turn adds such sums and allocation as he deems necessary to the balance sheet.

(c) After its approval by the Minister, the draft balance sheet is sent on to the Finance Minister who adds his comments thereon before submitting it to the People's Assembly. Most of these comments relate to the utilization of ARENTO's surplus for the account of other agencies and organizations instead of retaining them in ARENTO's account.

Fifth: ARENTO's Service Cnarges and Basis of Accounting:

1. ARENTO's Service Charges:

Article (12) and para (3) of Article (18) of the Law prescribes the following pricing methods:

(a) The board of directors proposes the price rates, tariffs and charges for the services provided by ARENTO in accordance with the correct standards of cost accounting and on the bases approved by the board of directors and sent to the Minister.

(b) The Minister presents the rates to the Council of Ministers.

(c) The Minister issues a decree determining the rates to be applied.

In the event the State fixes service rates at less than the approved levels the resultant difference shall be borne by the State budget.

2. Correct Standards of Cost Accounting:

Articles 172 to 177 inclusive of the financial regulations issued by the Minister's Decree No. 108/1983 as amended by decree No. 467/1983 requires ARENTO's accounts to be held in accordance with the nature of its activities and the proposals of expert service consultants with which ARENTO enters into contract, and requires it also to apply correct standards of cost accounting in order to correctly calculate the cost of services.

Central Audit Agency Law No. 144/1988 organizes the method by which the agency will audit ARENTO's accounts.

By correct standards of cost accounting is meant the rules of accounting generally practiced in Egypt and which ARENTO decides to use as a basis for its accounting in general, including the calculation of the costs of providing services under the control of Central Audit Agency.

Sixth: Comparison between ARENTO and the Suez Canal Authority:

The Suez Canal Authority is established according to Law No. 30/1975, which rules as follows:

1. The Suez Canal Authority is responsible for running the Suez Canal utility and for managing, exploiting, maintaining and improving it. To this end the Authority may, whenever necessary, establish projects related to or connected with the utility, participate in their establishment or encourage the establishment of same.

2. The Suez Canal Authority is a public authority enjoying an independent juridical personality. It is governed by the provisions of this Law exclusively and is not subject to the provisions of General Organizations Law No. 60/1971.

3. The Authority is managed by a board of directors appointed by presidential decree.

4. The Authority follows appropriate management and exploitation techniques normally applied by commercial projects.

5. The Authority has an independent budget which it shall prepare in accordance with the rules applied in commercial projects, without prejudice to the examination by the Central Audit Agency of the Authority's closing account. Its financial year commences on the first of January and ends on the 31st of December of each year.

6. The Authority levies and collects navigation, piloting, towing, moorage and other fees in accordance with laws and regulations.

7. In order to carry out its duties, the Authority may exercise all the necessary powers and authorities, and may, in particular, acquire ownership of land and buildings by any means including the power of eminent domain. The Authority may lease out the land or buildings it owns to third parties and may lease land and buildings owned by third parties, whether to fulfill the objects for which it was established, to realize the welfare of its employees and workers or to establish projects and utilities connected to the Canal or which may be necessary for its proper running.

8. The Authority's funds are deemed to be private funds.

From the above, it is clear that the differences between ARENTO and the Authority are represented essentially in the following:

(a) The Authority's fund are private funds, while those of ARENTO are public funds.

282

(b) Because its funds are private, the Authority has the right to effect any dispositions in order to establish projects connected to its activity, either with third parties or by itself. On the other hand, ARENTO may only exercise its right to execute projects or to establish joint stock companies, singly or with third parties, with the approval of the Minister.

(c) The Authority has an independent budget to which the rules of commercial projects are applied, subject only to the supervision of the Central Audit Agency. Moreover its financial year is different from that of the State. While ARENTO also has a separate budget, it is subject to the comments of the Finance Minister and any dispute arising between him and ARENTO over the budget is subject to the determination of the People's Assembly. Moreover, its financial year is the same as that of the State.

(d) The Authority is not subject to the General Organizations Law, Accordingly, it is not administratively answerable to a specific Minister or Ministry. Rather, it is an investment agency managing a public utility owned by the State. Although ARENTO also runs a public utility owned by the State, it is subject to the General Organizations Law.

Seventh: Comparison between ARENTO and EgyptAir:

1. EgyptAir is subject to Law No. 23/1960 (as amended by Law No. 241/1960), to Law No. 11/1966, to Law No. 116/1975, to Law No. 97/1983 as well as to presidential decree No. 600/1975 and Prime Minister's decree No. 159/1982.

2. According to the above mentioned laws and decrees, EgyptAir is a general organization with a juridical personality coming under the supervision of the Minister of Civil Aviation.

3. EgyptAir is entitled to pursue its authorized activity itself or to pursue some of these activities through such subsidiary economic units as its board of directors may decide to establish. In respect of the activity it decides to carry out itself, EgyptAir is considered to be an economic unit.

4. EgyptAir has a board of directors which is responsible for conducting its business and running its affairs.

5. EgyptAir's resources shall be made up of the proceeds of the net profits realized by its subsidiary economic units and its share in the sums payable in consideration of supervision and management prescribed in the distribution of the profits realized by its subsidiary economic units.

6. EgyptAir has a separate budget to which the rules of commercial projects are applied. This means that EgyptAir's profits devolve to it.

7. Article (14) of Law No. 97/1983 rules that the funds of public sector organizations are among the privately owned funds of the State, unless the respective decree establishing an organization stipulates otherwise. Whereas, the legislative texts organizing EgyptAir are silent on the question of its funds. Therefore the said Article (14) applies and EgyptAir's funds are deemed to be privately owned fund of the State.

   Thus ARENTO differs from EgyptAir in that the former's funds are public funds while those of EgyptAir are privately owned by the State.

Eighth: Development of ARENTO's Activity:

As previously mentioned, ARENTO is exclusively empowered to establish and operate telecommunication networks at the national level and link them up with international networks within the framework of the State's political and economic plan. To this end, it is allowed by law -and with the approval of the Minister of Transport- to establish joint stock companies, either on its own or with other partners. The shares of these companies may be traded upon their incorporation, and ARENTO's employees have a pre-emptive right to subscribe thereto.

Thus ARENTO's activity may be divided into two areas:

- One area relates to establishing and operating local telecommunication networks and linking them with international networks.

- The second to presenting telecommunication services to the public and consumers, installing and maintaining equipment and collecting fees and subscriptions.

Since area one touches on the general policy of the State and its international relations as well as on the telecommunication infrastructure, it must be protected and the equipment required to

284

pursue this aspect of ARENTO's activity must remain the property of the State.

As to area two, which is ARENTO's commercial activity, this may be assigned to a management company established in the form of an Egyptian joint stock company, in the capital of which ARENTO will own 49% and other shareholders the rest. This company would manage the commercial activity, including maintenance works for equipment, units and distribution centres for telephone services.

From the legal point of view, assigning management of the telecommunication utility to the new joint stock company should be effected through a management contract which addresses all the conditions of management, mechanism of pricing and such other conditions as are necessary to comply with State policy in this regard.

APPENDIX B
PUBLIC LAW No. 5 ISSUED IN 1991
CONCERNING CIVIL SERVICE LEADERSHIP POSITIONS

OFFICIAL JOURNAL No. 10 of March 7, 1991

LAW No. 5 of the Year 1991
Concerning Civil Service Leadership Positions in the Administrative Organization of the State and the Public Sector

In the Name of the People
The President of the Republic

The Peoples Assembly decrees the following law and it is promulgated by us:

ARTICLE 1

Filling Civil Service Leadership positions in the Government, Local Government Units, Public Authorities, Governmental Agencies which have a special budget, the Public Sector Authorities and Companies, the General Organizations, the Public Sector Banks and the Agencies and Banks enjoying the Public Juridical Personality, shall be for a period not exceeding three years renewable for another period or periods according to the provisions of this Law, subject to the provisions of Laws and Regulations concerning the rest of the conditions as required, for filling the aforementioned positions.

These positions shall mean those whose incumbents assume the leading administration in production or services activities, or the management of affairs of the authorities in which they function, from the grade of Director General, the Senior Grade, the Distinguished Grade, or the Upper Grade and their equivalent.

ARTICLE 2

The Term of Office in the Leadership Civil Service Position shall expire with the termination of the period determined in the decision for filling it by the Civil Servant unless a decree is issued by the Authority concerned with Appointing, for renewal of that period. When the period for occupying the foregoing position expires, he shall then fill another non-leadership position whose grade shall not be lower than the grade of his position, and the salary appropriate therefore shall not be less than the salary he used to receive, to which shall be added the allowances prescribed for the position to which he is transferred.

Transfers within the unit shall be made by a decision of the concerned Authority, and outside the unit, they shall be effected by a decree of the Prime Minister.

Within thirty days following the termination of the period during which he filled the leadership position, the worker may terminate his service upon his request. His rights shall then be settled on the basis of his period of contribution to the Social Insurance Authority, to which shall be added a period of five years, or the period remaining for his attaining the legal age prescribed for quitting the service, whichever is less. Regarding the pension due him on his basic salary or the variable salary in his previous leadership position, he shall be treated similarly to a civil servant whose service is terminated on attaining the legal age.

The Public Treasury shall bear the increase in insurance rights ensuing from the application of the provisions of this Law.

The procedure necessary for renewing the period of filling the leadership position therefrom, according to the foregoing provisions, shall be taken at least sixty days before expiry of the period determined for filling the position.

ARTICLE 3

Subject to the provisions of article 25 of Law No. 38 for the Year 1972 concerning the People's Assembly, and article 24 of the Law No. 120 of the year 1980 concerning the Shura Council, the present law shall not apply to:

1. Governors, Deputy-Governors, members of the Judiciary Bodies, Members of the teaching staff in Universities and Scientific Research Centers, members of the Diplomatic and Consular Corps, and members of the Police Authority.

2. Members of the Administrative Control Authority, and the general Investigations.

3. The Central Audit Agency, the Socialist Public Prosecutor, workers in the General Secretariat of each of the People's Assembly, and the Shura Council.

4. Other authorities and positions of special nature for which a republican decree shall be issued determining them following the approval of the Cabinet of Ministers.

ARTICLE 4

The results of work of incumbents of leadership positions which are subject to the provisions of the present law, and who are still in service at the date these provisions are enforced, shall be evaluated for the previous period according to the rules and procedures to be prescribed in the Executive Statutes of the present law, within one year from the date if its enforcement.

These civil servants shall continue during this year to fill the Leadership Civil Service Positions, until renewing their service period in these positions, or determining their situations according to the provisions of the present Law.

ARTICLE 5

The Executive Statutes of this Law shall be issued by virtue of a decree of the Cabinet of Ministers within three months form the date of its publication, comprising the rules for selection, preparation, qualifying and evaluation.

ARTICLE 6

All provisions contrary to the provisions of the present Law shall be superseded.

ARTICLE 7

The present Law shall be published in the Official Journal ad its provisions shall be enforced effective the day after the date of its publication.

The present Law shall receive the Seal of the State and shall be enforced as one of the Laws of the State.

Promulgated at the Presidency of the Republic on 13 Shabaan Year 1411 (hejira) or February 28, 1991.

Hosny Mobarak

APPENDIX C
MINISTERIAL DECREE No. 108 issued in 1983
AS AMENDED BY DECREE NO. 467 issued in 1992
FINANCIAL POLICIES AND REGULATIONS

ARAB REPUBLIC OF EGYPT

MINISTRY OF TRANSPORT, TRANSPORTATION

AND

MARINE TRANSPORT

THE NATIONAL AUTHORITY FOR WIRE AND WIRELESS COMMUNICATIONS

Ministerial Decree No. 108 for the Year 1983 For the Issuance of a Financial Panel As Amended By Decree No. 467 For The Year 1992

Decree by
The Transport, Transportation and Marine Transport Minister
No. 108 for the Year 1983
To Issue the Financial Panel for the National Authority for Wire and Wireless Communications

Ministry of Transport, Transportation and Marine Transport:

After review of Law No. 153 for the year 1980 to concerning the establishment of the National Authority for Wire and Wireless Communications. And by approval of the Administration Board for the National Authority for Wire and Wireless Communications by his session held on 6/3/1983 over the financial panel project, and to be adopted by the authority.

Has decided:

Article No. 1 To work by the rulings of the financial panel for the National Authority for Wire and Wireless Communications as attached to this decree.

Article No. 2 This decree is to be published in the Egyptian Official Events Journal and to be valid from the date of publication.

Minister of Transport,
Transportation and Marine Transport
Engineer Soliman Metwalli Soliman

Decree

Minister of Transport, Transportation and Marine Transport

No. 467 for the Year 1983

To Issue Amendments to the Financial Panel for the National Authority for Wire and Wireless Communications

Ministry of Transport, Transportation and Marine Transport:

After review of Law No. 153 for the year 1980 for the establishment of the National Authority for Wire and Wireless Communications. And after revision of the Ministerial Decree no. 108 for 1983 concerning the issuance of a financial panel for the authority.

And after approval by the Administration Board for the National Authority for Wire and Wireless Communications by his session held on 18/8/1992, over the suggestive amendments project, to the financial panel adopted by the authority.

Has decided:

Article No. 1 To work by the force of the rulings in the amendments to the financial panel for the National Authority for Wire and Wireless Communications as annexed to this decree.

Article No. 2 This decree is to be published in the Egyptian Official Events Journal and is to be followed from the date of publication.

Minister of Transport,
Transportation and Marine Transport
Engineer Soliman Metwalli Soliman

FINANCIAL PANEL

General Rules:

Article No. 1 The rules of this panel are valid for all financial dealings by the National Authority for Wire and Wireless Communications, in a manner to safeguard its monies and secure the internal control in it.

Article No. 2 The other panels for the authority are considered complementary to be rules in this panel.

Article No.3 The authority can use other financial accounts as necessary by the nature of work in addition to the used accounts.

Article No. 4 The central administration for the financial and commercial affairs and others of similar concerns in the central administrations, and the different authority zones are responsible of the execution and control of the application of those rules in the panel, also for the financial rules as stated in the authority's other panels and all the executive decision concerning those rulings.

Article No. 5 The authority shall have a private account or more at the Commercial Banks to deposit resources.

Article No. 6 The authority shall have a private account or more with the Commercial Banks to deposits its collections of foreign currencies, those collections are used for:

a) Import "by itself or through others" without permit what it needs of the production requirements, materials, equipments, tools, spare parts, transportation means, apparatus and other necessary equipments for its activity and to replace the depreciated assets, and to execute its investment projects either by opening L/C's by deducting from cash shares allocated for the authority in foreign currency or by deduction from the authority's balance in foreign currency with the Commercial Banks. This without being bound by the rules of the panels regulating import or trading in foreign currency.

b) Payment of the companies, foreign countries, and international federation dues either by checks or by direct transfer through the Commercial Banks.

c) Payment of the value of printings, international bulletins. That are imported by the authority from foreign directions.

Article No. 7 It is a must to refer to the central administration for financial and commercial affairs with its financial administrations as concerned with the central and zone administrations to make sure of the presence of the financial credit that allows and concerns agreement before contracting or payment.

Article No. 8 Insurance must be placed over cash trust officials and safes trust responsible and of similar nature against theft, robbery and other, in a manner the authority withstands the value of the insurance instalments while considering the adequacy of the insurance and its continuity.

Article No. 9 The authority can insure over its properties against the different dangers like robberies, fires and others.

Article No. 10 It is possible to allocate administrative housing for the workers according to the rules as issued by the Chairman. In a manner to recover the house at transfer of the worker or at end of service.

Article No. 11 The authority can, in a manner to obtain its rights facing others, take procedures of placing administrative reservation according to the rules of the law concerning placing administration reservation of rights.

Article No. 12 The Chairman or his delegate can allow by permit to perform the amendments as required by the work nature by the authority at the rented areas to the account of the authority on terms of obtaining the approval in written of such from the owner.

Article No. 13 The central departments heads and the zones managers each in his field of specialization have the authority to rent what the authority needs, with equipments as of buildings, and land according to the rules issued by the Chairman.

Article No. 14 To be prepared estimated measurements for the works and services that the authority performs for others. Its value is to be collected in advance and placed in a special account payable from it.

The costs related to labour and goods, services, bonuses, incentives, and add efforts. The final accountancy occurs according to the actually spent adding to it, the administration fees.

Article No. 15 The administration board determines a percentage of the credits for the third chapter, as registered in the authority's balance for research and studies connected to its activity, that it undertakes by itself or assigned to others. Also the board determines a percentage of those credits payable as incentives and workers bonuses in the field of study and execution of projects.

Article No. 16 The Chairman or his delegate has the authority to distribute bonuses, incentives, and additional pay over the workers at the authority or over those performing services to it among the non workers.

Article No. 17 The Chairman is exempted with his deputies and the central departments heads and the zones managers from the equivalent for the use of the rest houses.

The deputies each according to his specialization have the authority to exempt the workers from payment of the equivalent for staying over night at the authority's rest houses in case of work assignments in other regions and according to each case.

Article No. 18 The fixed assets owned by the authority that are hard to place in a survey are considered as present at service, its data shall be presented out of a special computer output specially placed for this purpose.

Article No. 19 The warehouses are to be surveyed according to a time schedule all along the year, to notify of the Central Accountancy Authority in advance, and to determine the stored amounts at the end of the financial year out of the registers.

Article No. 20 Independent warehouses are to be allocated for the purchased equipments to establish the authority's projects till its withdrawal to execute the projects and perform accountancy settlements when joining those service projects.

Article No. 21 The general administration is concerned with evaluation and depreciation work, to determine the amounts that should be deducted under the item for expenses as depreciation, and allocations out of its registers and the computer output data, and according to the determined depreciation ratios. It should notify of that to the general administration for financial affairs and the financial administrations as concerned to perform the accountancy entries as necessary. This should occur periodically each three months.

Article No. 22 The general administration for evaluation and depreciation is specialized in determining the assets value that went into service before closing the end of accounts for the financial year, it should notify the general administration for financial affairs and the financial administrations concerned to perform the accountancy rules as necessary.

Article No. 23 The general administration for evaluation and depreciation is specialized to notify the general administration for financial affairs and the financial administrations as concerned of the value of the assets that were removed from service and for which the assumed life time has expired, before closure of accounts to perform the accountancy entries as necessary.

Article No. 24 The concerned financial administration shall notify the general administration for evaluation and depreciation of all the expenditure on the projects account - each project separately - monthly out of its register and the computer output - and it depreciates all along the assumed life time for the asset according to the authorized depreciation ratios.

Article No. 25 The financial year starts for the authority with the start of the financial year for the state and ends with its end.

Article No. 26 All the decrees that are issued by the administration board relating to the financial sides are considered complementary to this panel.

The Financial Authorities.

Article No. 27 The permit (licensing) exceeds the total costs for the projects:

a) The authority by approval of the Chairman has the right to exceed the total costs as authorized for any project included in the investment plan of the authority against an equal deduction for other projects, which are included in the same balance after obtaining the approval from the Ministry of Planning.

b) The Authority after the approval by the deputy to the Chairman for planning and execution of projects has the right to exceed the credit for any project included in the balance against an equal deduction in the credit for other projects included in the balance on terms it does not exceed the total costs for the project.

c) The Authority after approval from the general manager for the financial affairs has the right to exceed the credits for items and branches as in the balance for the authority concerning operation, and maintenance against equal savings under the same title.

Article No. 28 Authorization and amendment of quantities and measurement for the projects:

a) The deputy to the Chairman as concerned authorizes projects measurements that exceed in cost L.E. 500,000.

b) The concerned central departments heads authorize the measurements for the projects with financial costs not exceeding L.E. 500,000.

c) The concerned general managers and the zones managers authorize the projects with measurements not exceeding L.E. 200,000.

Article No. 29 Authorization and amendment of the measurements for the other subjects and others account, have valid the authorities incoming within the proceeding article.

Article No. 30 Devising items or types or licensing to exceed it against a similar saving under the same heading.

a) With the approval of the deputy Chairman for the financial and commercial and administration affairs at the level for the balance to the authority.

b) With the approval of the central administrations heads at the level of the allocated amounts for each zone while notifying the general administration for the financial affairs with a copy of the amendment.

Article No. 31 Redistribution of the allocated credits for each zone: The zones area managers shall authorize the amendment with notification to the general administration for the financial affairs with a copy of the amendment.

Article No. 32 publication, advertisement and announcement for work purposes:

a) For advertisement:
Approval by the Chairman or his delegate.

b) Publication and announcement for work purposes:

1. With the approval by the deputy to the Chairman for the financial, commercial and administration affairs at the authority's level.

2. With the approval by the central administrations heads at the zones and administrations level.

Article No. 33 Presentation of gifts and contributions:

a) With the approval by the Chairman till L.E. 10,000.

b) With the approval by the administration board for more than L.E. 10,000, including gifts, and contributions that were calculated among the authority's assets.

Article No. 34 Forming permanent borrowings as in the custody of one of the workers:

a) With the approval of the zones and general managers till L.E. 5,000.-

b) With the approval of the central departments heads in what exceeds.

In a manner that the payment from the permanent loan be less than L.E. 500.- at a time, on terms not to differentiate the purchases, to the exception of the fees of different types, flooring, freight, commissions and similar types.

They are paid from the loan whatever the value is, in a manner to present the cashing documents within a week at the most.

Article No. 35 Formation of temporary loans as a custody of one of the workers:

a) With the approval of the concerned general mangers and the area managers till L.E. 3,000.

b) With the approval of the concerned central departments heads in what exceeds.

On terms of presenting its documents within the determined period when formed. The persons in delay shall withstand a delay fine according to the declared price from the Central Bank for the delay period. It is possible to extend the period by approval of the authority forming the loan.

Article No. 36 Authorization of the various payment forms:
The general managers as concerned and the area managers or their delegates.

Article No. 37 Distribution of encouragement bonuses incentives, and workers compensations for the unusual efforts:

a) With the approval of the Chairman at the level of the authority or his delegate.

b) With the approval of the Deputies to the Chairman or their delegates at the level of the central departments.

c) With the approval of the central administrations heads or their delegate at the level of the zones.

d) With the approval of the zones general managers at the departments level.

Article No. 38 Teaching, training and supervision over examinations pounces. The deputies to the Chairman can approve of payment and authorize.

Article No. 39 Assistance:

a) Immediate assistance in cases of emergency with the approval of the deputy to the Chairman for financial, commercial and administration affairs.

b) Normal assistance with the approval of the assistance committee and an authorization from the deputy to the Chairman for financial, commercial and administration affairs.

Article No. 40 Compensations and fines:

a) With the approval of the Chairman for non workers.

b) With the approval of the deputy to the Chairman for financial, commercial and administration affairs for workers at the authority according to the recommendations by the Health Insurance General Authority.

Article No. 41 Parties, receptions, feasts, seasons, sports activity, and social activity expenses:

2

a) With the approval of the heads of the central departments till L.E. 500.-

b) With the approval of the deputy to the Chairman for financial, commercial and administration affairs till L.E.2,000.-

c) With the approval of the Chairman for what exceeds in amount .

Article No. 42 *Burial expenses:*
With the approval of the area and general managers.

Article No. 43 Unexpected expenses:
With the approval of the Chairman within the limits of the balance credits.

Article No. 44 Deduction by expenses for previous years by deducting over the current financial year:
With the approval of the area and general managers.

Article No. 45 Cutting away from the income:
With the approval of the area and the general manager while taking into consideration the rules of oldest trivial after making sure of previous addition to the income.

Article No. 46 *Payment by a document instead of a lost original:*
With the approval of the area and general managers after being sure of previous non payment and determining the responsibility.

Article No. 47 *Payment without documents:*

a) With the approval of the concerned general managers till L.E. 40.-

b) With the approval of the central departments heads till L.E. 200.-

c) With the approval of the deputies to the Chairman till L.E. 400.-

Article No. 48 *Overlooking due debts to the authority on terms they are not stolen, as follows:*

a) In case of negative responsibility - accidents - right fall down in cases - case refusal - verdict for less than due - closing case whatever its value might be after performing the investigation as necessary through the legal affairs to determine the responsibility. With the approval of the general and zones managers as concerned.

b) Cases where it's impossible to prolong claim.

c) Repair of damages or rehabilitation

and

d) The amounts due to the authority from the contributors after difficult collection legally:

1- With the approval of the concerned general managers till L.E. 100.-

2- With the approval of the central administrations heads till L.E. 300.-

3- With the approval of the deputy to the Chairman for the financial, commercial and administration affairs till L.E. 500.-

4- With the approval of the Chairman for what exceeds.

h) *The workers Loan:*
With the approval of the deputy to the Chairman for the financial, commercial and administration affairs in the case of death of a worker indebted by a loan, and according to each case otherwise.

Article No. 49 *The authority to place instalments over the organization's dues is as follows:*

1) The organization dues with contributors:

a- With approval of the concerned general mangers till L.E. 300.-

b- With the approval of the central departments heads till L.E. 600.-

c- With the approval of the deputy to the Chairman for the financial, commercial and administration affairs for what exceeds.

It is termed in all cases that payment of dues be terminated before the date for the next periodical instalment.

2) The priority fees are with the approval of the deputy to the Chairman of operation and maintenance.

3) The due amounts over the authority's staff (beside the services dues):

a- Till L.E. 400.- for a period not exceeding 12 months. With the approval of the general and zones managers.

b- The amounts that exceed L.E. 400.- till L.E. 1,500.- for a period not exceeding 24 months. With the approval of the central department heads.

c- The amounts that exceed such should be by approval of the deputy president for the financial, commercial and administration affairs for a period not exceeding 36 months.

Article No. 50 *Overlooking the value of lost or damaged items:*

a) By approval of the general mangers till L.E. 200.-

b) By approval of the central departments heads for the amounts exceeding L.E. 200.- till L.E. 800.-

c) By approval of the deputies to the Chairman for what exceeds.

Article No. 51 Payment of the traffic violations value. To be born by the authority in case of violations resulting from organizational works by approval of the general managers and to be born by the person causing it to happen, if the violations are personal.

Article No. 52 Purchase of furniture and office equipments:

- With the approval of the general managers till L.E. 2,000.-
- With the approval of the central departments heads as concerned till L.E. 10,000.-
- With the approval of the deputies to the Chairman for exceeding amounts.

On terms of prior commitment.

Article No. 53 *Land Purchase:*
With the approval of the higher committee for purchases and financial affairs.

Article No. 54 The amounts are allocated that the authority collects as a result of action over one of its fixed assets or those transferred and they are compensated to return the authority's assets to original status or to purchase new fixed or transferred assets.

The Balance.

Article No. 55 The authority prepares an estimated annual balance representing the estimate financial status for the local and foreign funds sources and the ways of expenditures in what agrees with the work nature.

Article No. 56 The estimate annual balance is divided over:

a) The current balance, it includes the resources and the uses concerning the current activity.

306

b) The investment balance, it includes the resources and the uses for the authority's investments.

c) The investment transfers balance, it includes the authority obligations concerning the payment of the loans instalments and the finance sources for those obligations and others.

Article No. 57 To be formed by a decree from the Chairman. The principal and branch committees to prepare the annual balance project for the authority in a manner that the main committee performs the study and preparation of the project in its final form and to authorize it from the Chairman and to present it to the administration board for its approval. In a way that a copy of the authorized balance project be sent to the Ministry of Finance and the concerned directions.

Article No. 58 The balance credits are to be distributed after its authorization by the concerned authority over branch balances for the central and zones departments and the various authority (organization) administrations to work by its force.

Article No. 59 The authority prepares a balance for the social service fund among the general balance for the authority (organization) with finance and payment as follows:

a) Finance sources:

1) The credit transferred from the authority's balance within the limit of 5% of the net value of the first chapter - wages.

2) The value of collected fines from violating workers.

3) The collected revenues out of performed services (kinder garden's expenses, reinforcement classes, other activities).

4) Gifts, assistance or any other income.

5) The surplus out of the in cash balance for the fund and that transferred from the previous year.

Article No. 60 The funds works are organized and payment authorization performed according to its executive panel.

Article No. 61 The authority can after review by the board for special funds to deposit specific and determined resources to be used for determined purposes.

Article No. 62 Prepare a closure account for private funds to be included in the closure accounts for the authority, with surplus transferred to the following year.

Article No. 63 The authority prepares a cash balance clarifying the collections and the expenditure as expected during the financial year, to take care of coordinating the collection dates and payments while showing the method of facing liquidity deficit if any, including borrowing from the commercial banks.

Article No. 64 The authority prepares the purchase balance annually to supply the stores with sources as follows:

1- Credits for clothes, food, spare parts, equipments, stationarty to be included in the current balance.

2- A percentage of local and foreign cash included in the investment projects credits equivalent to the expected drawn form warehouses for those projects accounts.

3- The value of the equipments expected to be delivered to face works for others within the limits of the stored.

208

Article No. 65 The authority can overlook the one chapter link according to required from actual execution, if that is due to laws or decrees issued after the authorization of the balance or due to an increase in activity by the authority on terms of arranging a cover with the approval by the Chairman.

Article No. 66 The authority can innovate items, types or licenses to overlook and to transfer between credits including bonuses, incentives, and additional wages according to the financial authorities.

Article No. 67 To hold a register for the commitments at the financial administrations, to place entries of commitments before payment, in a manner to revise each commitment relative to the actual spent, and to disregard the non executed commitments.

Article No. 68 The remaining credits are to be transferred, without payment from the investment balance during the current financial year, to the following financial year balance, to be used for the purposes previously allocated for.

Article No. 69 The authority has the right to conclude contracts concerning new works included in the plan, and that are extended in execution for more than one financial year in the limits of the total costs as authorized for the projects while allowing cash liquidity to fulfil the consecutive obligations to those contracts.

Article No. 70 It is possible by a decree from the Chairman to exceed the encouragement bonuses credits and the incentives by a ratio of 10% of the expected increase to achieve in the actual revenues collection in the current expenses that are realized as a result to expenditure guidance.

Article No. 71 It is a must to use the financial credits in the purposes as placed.

Article No. 72 Not valid are the rulings for general permits as annexed to the law of fixing the balance if it contradicts with the basic law for the organization and the regulating panels.

Article No. 73 In the case of a delay in the issuance of the balance fixing law for the authority before the start of the financial year, payment occurs within the limits of the credits for the previous financial year balance, till its issuance.

Special Rules for the Workers:

Article No. 74 The wages, salaries and similar are paid in the last day of 'he month. If the last day meets an official holiday, payment shall be in the last previous working day. The Chairman or his delegate can advance the payment dates on occasions and feasts days. Also relative to the pensions determined to be paid starting from the eightieth day of each month.

Article No. 75 The financial administrations managers in the central and zones administrations must sustain from paying any unauthorized document by the concerned authority.

Article No. 76 Without violating the rulings of the laws for alimony, deduction from the worker's pay or signing a reservation against him shall be within the limits of one quarter of the due pay. It is not possible to place reserve over the transport expenses as nor the luggage transport expenses nor the stated in kind with its types.

Article No. 77 It is not valid to accept agency in cashing alimony or granting it to others except by official agency authorized at the Real Estate Office while considering it is prohibited to give away the person due to minors.

Article No. 78 The financial affairs administrations should revise the payroll lists, the pensions, the expenses and any other dues, to review it in detail to make sure of its legality, validity for payment.

The financial administrations managers and their agents are responsible personally of the payment legality.

Article No. 79 The checks are written and the payment orders with the net value for wages, pensions, expenses and any other dues to all having the right in such in their names, or in the names of the representatives for payment or the concerned safe trustees. Those amounts are considered as personal trust at their end, not to be cleaned off except by returning the lists validated, attached to it the necessary documents.

Article No. 80 The wages, pays, expenses and pensions with all dues that have not been paid should be supplied to the concerned treasury in a date latest 15 days from the determined date for payment.

Article No. 81 The direct heads should notify the workers affairs and the concerned financial administration of all the work stops concerning the workers following them soonest occurrence to deduct it from their pay in the same month or the following month at the most.

Article No. 82 The deductions should be paid that were performed over the workers wages and that are due for payment to others at a date maximum the tenth day of each month except for the alimony pension it is at a date maximum be the fifth of each month.

Article No. 83 The payment representative can not make another worker an agent in cashing checks, and payment orders drawn in his name or him performing the payment for the ones deserving it on his behalf.

Article No. 84 The payment representatives should attest at the tail of the lists that the names due for payment have cashed their dues by their own knowledge and that they signed facing them in a manner informing of such after indemnity assurance.

Article No. 85 The payment representative should return the payment lists attaching to it the supply receipts for the amounts that have not been paid to their owners and any other documents supporting payment, to the concerned financial affairs administrations at a date maximum twenty days from determined date for payment.

The financial affairs administrations should:

a) Taking follow-up procedures for the supply of those lists on determined dates and taking necessary procedures in case of delay.

b) Revision of those lists and annexes as of documents and supply receipts for the unpaid amount to their owners.

c) Making sure that all the workers have signed the lists in a manner evidencing payment of their dues and that the amounts that were not paid have been supplied to the concerned treasury on determined date.

Article No. 86 The workers dues posted in the credit balances in their names should be revised periodically, and to know the reasons of it remaining in the credit balance. With settlement of the non due to the special item and its addition to the various revenues if from a previous financial year, as for the due amounts.

The revenues are settled according to the following dates:

a) If the due amount is less than L.E. 50.- it is settled to the revenues after the passing of one year from posting in credit balances beside the year of posting.

b) If the due amount is L.E. 50.- or more, it is settled for revenues after three years beside the year of posting.

Article No. 87 Payment of the workers dues that are returned by drop out of revenues, they are licensed to be paid by the concerned financial authority, according to a request presented by the subject himself showing all the necessary data and signed for acceptance by a number, and the settlement date for the revenues and that it has not been previously drawn.

Article No. 88 The workers dues that are not claimed within a period of maximum five years, become an earned right for the authority.

Article No. 89 It is possible with the approval of the central administrations heads and by the authorization of the deputy to the Chairman as concerned to pay for the tickets of membership for the use of the internal transport means (metro - bus - train) to the account of the authority for the workers whose work nature necessitate continuous travel. It is also possible to pay memberships by km for the railways lines and the public vehicles lines or the subway metro according to the nature and terms of work of the licensed ones.

Article No. 90 It is possible with the approval of the Chairman to allocate organizational passengers cars for the occupants of principal posts at the authority to be used between their residence and work headquarter. Also relative to experts who perform services for the authority on a term of no payment of an in place of transport payment.

Article No. 91 If the worker dies while in service, the widows or widow or the oldest of sons, and in case of absence to he who shall pay the funeral, shall receive three quarter of the funeral expenses due immediately, and the public affairs administration for each zone takes over the necessary procedure for that concern. The remaining quarter is paid after presentation of the required documents.

Resources and Collection:

Article No. 92 The authority's dues are determined out of the customers contributions and of similar nature in advance through the central administration for commercial and economical affairs and the following administrations. They are written in the unified register in the names of the authority clients. Those registers are considered as assistant ledger. It also notifies the financial affairs administrations in the zones according to the determined dates monthly with a total of those dues to prove it in the total registers (general ledger), a monthly conformance test should be performed between the balance of total account for the clients at the financial affairs administrations and the total of the assisting personal accounts at the commercial administration (wire and wireless).

The unifies register is considered as enough evidence of proving the debtor quality for the clients without settlements.

Article No. 93 The authority's dues are to be collected either in cash or by checks or cable or post transfers. The collections are deposited daily to the main authority's treasuries or the bank or post office according to cases, or through the banks according to contracts.

Article No. 94 The checks are delivered to the treasury that stamp it and authorizes it deposit in a bank. It is delivered to the bank using the prepared form for such a purpose on the following day at the most.

Article No. 95 The cable and post transfers incoming to the authority are delivered to the concerned treasury the sends it to the financial affairs administration using the prepared form for that purpose, the concerned division endorse it by those with the right to sign over drawn checks, then it is sent to the concerned direction for collection.

Article No. 96 It is a must to notify the concerned financial affairs administration of what is collected in cash or by checks or by cable or post transfers, and the type of revenue, this to prove it and perform the necessary accountancy entries for that concern after performing the necessary revision.

Article No. 97 When returning the clients checks from the bank without collection for any reason, the concerned financial affairs administration performs the necessary accountancy entries according to the issued instructions for that concern. A special register is laid to register the returned checks to follow - up its collection procedures. The returned checks are sent to the concerned direction to claim its value in cash from the clients with collection of a delay fine of due payment, considering the client did not pay on date or legal procedures will be taken.

Article No. 98 The contributions are collected and similar items as due from the clients at the authority's main and branch treasuries, and the cable offices, the telephones offices, the post offices, and the banks. This according to the instructions and rules as issued by the financial and commercial affairs central administration after its authorization from the Chairman.

Treasuries:

Article No. 99 In each zone with a financial affairs administration forms a main treasury. It is possible to form branch treasuries according to the volume and nature of works in the area in a manner that it would be equipped with all necessary preparations and that all precautions be taken to save guard it as of guard and others.

Article No. 100 By instructions from the deputy to the Chairman for financial, commercial and administration affairs will be organized a method and system of work at the main and branch treasuries, to determine the cash balance allowed to be kept in those treasuries.

Fiscal Stamps, Lawyers Stamps and Others

Article No. 101 The fiscal stamps, lawyers stamps, fuel coupons and others as necessary for the authority's work shall be purchased from the concerned direction by advance payment system through each of the central administrations, in a way to settle it by documents before payment of another instalment.

Article No. 102 Those fiscal and coupons are personal custody to one of the workers insured by the directions using them. They are surveyed once a month at least by the concerned responsible to be determined by the concerned area general manager.

Bails:

Article No. 103 The letter of guarantee issued in favour of the authority for the temporary and final insurance and against the advance payments. Should be issued by licensed banks for such. If they are issued by foreign banks, they should be authenticated by one of the specialized banks in a manner they would be unconditional, valid and extendable.

Article No. 104 The insurance policies issued in favour of the authority by the telephone offices and public cable offices owners should be issued by Egyptian Insurance Companies, authorized and valid till expiry of purpose of its deposition.

Article No. 105 The letters of guarantee and the insurance policies should be in custody of a responsible staff to revise it, check its validity as of its value date period, its renewal on suitable time and it non following any term and returning it to the concerned after termination of its purpose. A special register shall be set posting in it all the letters of guarantee and the insurance policies, its data and the steps undertaken first by first.

41

Article No. 106 There should not be any reservations under the authority's hand over the value of the letters of guarantee or the insurance policies.

Article No. 107 It should be taken into care to claim the bank or the concerned insurance company of the value of the letters of guarantee or the insurance policies at the possibility of confiscation of the insurance or part of it. For any reason, this before the determined date of its expiry of validity. The one in custody is responsible personally of the consequences as of loss referred to the authority in addition to administrative penalties.

Certificates, Copies, and Extracts Fees:

Article No. 108 To be organized by instructions of the Chairman the certificates, extracts and documents copies that could be issued by the authority for others or for non workers.

Purchase of Books and Contribution in Journals and Magazines

Article No. 109 The Chairman or his delegate can allow the purchase of books connected to the authority's technical, financial and administration works, this to provide the authority's offices with it.

Article No. 110 The central administrations heads can allow for the purchase of scientific and foreign magazines and the panels and laws connected to the authority's activity within the limit of the credit allocated to the central administration.

Article No. 111 The Chairman or his delegate can allow to join the membership for the circulation of any journal or Egyptian or foreign magazine.

7

Joining in International Federations:

Article No. 112 The Chairman or his delegate can allow for joining by the authority in International Federations that have her works related to the authority's activity.

The Telephones:

Article No. 113 The minister of transportation and ministries heads enjoy a free of charge telephone line without a maximum limit for local calls and internal across the country calls and the contribution to a link line in case of a connection over the automatic call, with exemption from the installation and transfer fees, this for the life time. Also enjoys of this privilege the administration board members during their membership period and for the life time for those who spent 15 years with the authority.

Article No. 114 The Chairman can decide to make the authority bear the value of excess calls for telephones installed in the workers houses whose nature of work require performing a lot of calls to finish the authority's works.

Article No. 115 The workers at the authority are exempted along with the ministry of transportation general bureaus and the referred to retirement from administration fees and telephone installation fees, and the expenses for additional service, transport, giving away right fees. Also the works at the Egyptian company for the telephones equipments manufacture are exempted from 50% of the installation expenses.

Article No. 116 The home telephone contributions are installed for workers at the authority over monthly payments to be deducted from their pay. In case of validity of any other amounts resulting from excess local calls or across the country calls during the deduction period.

They are paid without fine or administrative expenses in a manner to cut the line in case of non-payment and that without returning the line except after payment. In case payment is not made within four months from termination of payment dates without fine. To apply the rules of non payment.

Article No. 117 The cables and local telex for the organization are to be authorized by the responsible staff and across the country call to be authorized by the concerned administration manager. As for the international telex it is to be authorized by the concerned central administration head. In all cases the responsible staff withstands the value if it is proven it has been used for purposes other than work.

Expenses and Its Payments:

Article No. 118 Payment shall be by the authority in one of the following methods:

1) By checks drawn over the Central Bank or the Commercial Banks.
2) By payment orders drawn over the authority's treasuries or the post treasuries.
3) Local payment orders.
4) In cash within the limit of the stated system for permanent and temporary loans or through the payment representatives relative to the workers at the authority.

Article No. 119 The checks, payment orders and local orders as issued should hold two signatures (a first and a second), and in all cases the models of these signatures should be reported to banks and treasuries as authorized by the Chairman or his delegate for such. The workers with permit for second signatures should revise the payment documents and make sure that the amount in written, in figures and the name of the deserving person conform to the documents.

2

Article No. 120 The checks and payment orders drawn in the names of the treasuries trustees, bankers, payment representatives and other of similar nature should have the name linked to this quality, no endorsement is allowed nor agency when payment.

Article No. 121 The checks and payment orders are considered as valid for payment within the following periods:

a) The checks: 6 months from drawing date.

b) Payment orders: 3 months in addition to the month of drawing.

The value of checks and orders are settled which were not paid for revenues according to the ruling of article 86 of this panel.

If the mentioned period expires, checks and orders should be renewed for other periods as by request of the person in concern.

Article No. 122 The financial affairs administrations at the central administrations and zones should take necessary procedures for its supply of necessary equipments by finance by checks, and payment orders and to control the method of circulation and filing and keeping of its trace clip in agreement with the rulings of internal control.

Article No. 123 The in place of lost checks and payment orders are reissued on terms of taking necessary procedures to save guard the authority's money.

Article No. 124 In the case of loosing a check or payment order concerning the wages and similar, to reissue instead after making sure of previous nonpayment and taking necessary procedures to stop its payment in Bank and treasuries in a manner that investigation occurs afterwards to determine the responsibility.

Article No. 125 In the case of a loss of a check or payment order not concerning the wages and similar, to perform what follows before reissuing:

a) Deposit on L/G for the value, valid for 6 months from date of stop of payment.

b) Publishing in a daily newspaper for three consecutive days checks with values not relative to publication expenses could be exempted.

c) Making procedure of stopping payment. Except for checks and orders that have been issued for 3 years or more, to reissue instead without procedures as in a and b.

Article No. 126 Workers should be insured that process in their trust checks and payment orders.

Article No. 127 Each payment should be confirmed with original documents indicating the due and to be authorized administratively and financially by the concerned authority.

Article No. 128 Payment occurs by documents for the instead of lost authorized by the concerned authority after making sure of the loss reasons and previous non payment and taking necessary procedures for that concern.

Article No. 129 The emergency and exceptional expenses are authorized with purchase of expensive items from the Chairman.

Article No. 130 The permanent loans should be in the trust of one worker insured and of the non-worker at the financial affairs with licensing to form it and determine its value. Its purpose and the maximum limit for each payment. This should occur according to the financial authorities shown in this panel, its value determined based on the double of the average monthly payment each 6 months to the exception of determining the loan for the funeral expenses and difficult stop of work loans.

Article No. 131 The permanent loans are personal custody, that should not be transferred to another person except after settlement of the first person loan by an official statement.

Article No. 132 The person in charge of the permanent loan shall hold a special register to enroll the expenses in detail confirmed with authorized documents for payment by the concerned authority.

It is given serial numbers annually, entries are by the value in original of document before deducting stamps. Also care should be given to the special rules for the reserving of commercial and industrial profits from source, and fiscal duties.

Article No. 133 The paid should be completed when the balance reaches 50% of the permanent loan value.

Article No. 134 The permanent loan should be surveyed once a month at least on dates unknown by a responsible assigned by a general manager for the area concerned or his delegate.

Article No. 135 All permanent loans should be settled before the last day of the end of the financial year, and any violation will cause referring the responsible of it to inquiry with collection of a delay fine at the declared interest rate by the Central Bank.

Article No. 136 The ruling for bankers and payment representatives are valid over the permanent loans trustees.

Article No. 137 When necessary it is possible to license to pay temporary loans for determined purposes. Those shall be in the custody of one worker insured and of a non worker at the financial accounts administration. To license its formation and to determine its value, period and purpose according to the financial rulings authorities.

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Article No. 138 The temporary loans are personal trust, should be settled soonest termination of purpose, to take care not to exceed the determined period for it, they should not be used for other purposes.

Article No. 139 The financial control authorities must survey the temporary loan at any time.

Article No. 140 All temporary loans must be settled before the last day of the end of the financial year, any violation of that shall cause referring the responsible to inquiry and to place against him a delay fine with the declared interest rate from the Central Bank.

Article No. 141 The rulings for bankers and payment representatives are valid over the temporary loans trustees.

Ledgers with Value:

Article No. 142 Ledgers with value are:

1- Checks paid by the Central Bank, the Investment Bank, and the Commercial Banks.

2- Payment orders paid by the post or treasuries.

3- Local payment orders.

4- Checks and orders notices books.

5- Models of coding from checks and financial transfers sent for collection.

6- Collection receipts for the dues to the authority (telephones - cable - wireless - telex - treasury receipts).

7- Delivery forms and equipments release forms from the warehouses.

8- Delivery book for checks, incoming post transfers.

9- Delivery receipt book for checks and post transfers.

10- Data book for drawn payment orders.

11- Receipts for supply of money to the treasury, banks or posts.

Article No. 143 The general rules are to be followed for the method of supply and printing of those ledgers. The methods of receipt, circulation, filing the new and used, periods of keeping and procedures followed in case of loosing the new and used.

Due Debts to the Authority and Its Cases with Others:

Article No. 144 Due debts should be collected from the workers or non workers immediately. It is possible in exceptional cases to install those debts by a permit from the concerned authority according to the rules listed in the financial authorities.

Article No. 145 The debts difficult to collect for any reason remain in the due debts accounts to the authority (debtors account) for the legally stated period for right fall in claiming it. In the case of difficult collection in a definite manner after exhausting all control procedures over the debtor. The matter is to be presented to the concerned authorities to overlook collection according to the rulings in the financial authorities.

The Posted Amounts in the Debtor Balances and That Due for Workers or Others:

Article No. 146 It is not possible to pay the posted amounts in the debtor balances and that due for workers or others except according to the request of the concerned including all data and after revision to the fixed in the registers and making sure of the right to pay and of previous non payment.

Article No. 147 Inspection and revision of the posted amounts in the debtor balances should occur periodically each 3 months to know the reason of it remaining, and extent of due and for the settlement of the non due of it to the concerned item or various revenues as per case.

FINANCIAL CONTROL

Article No. 148 Financial control over the authority occurs as follow:

a) Before payment by the managers and accounts agents at the various zones. They should reply over the general administration for financial affairs reports within 15 days from receipt of report.

b) After payment by the central authority for accountancy, which notifies the authority of its observations for research and to reply within the determined period.

Article No. 149 Revision is to occur at the headquarters for the authority, its administrations and areas.

Article No. 150 The staff for inspection over financial works (financial inspection general control accounts inspectors), has the right to review books, registers, documents, and to request data necessary, clarifications to perform their mission.

Article No. 151 Soonest knowledge of any incident of robbery or negligence all zones and administrations should place a hand over the documents and notify the general control for financial inspection at the general administration for financial affairs.

Article No. 152 The general control performs investigation and immediate inspection for the incident and present a preliminary report to the general manager for the financial affairs of the result showing the value of losses and the stolen amounts or lost amounts. The direct responsible and in case requires such form an inspection committee to inspect the works and recommend the procedure to present to the Chairman to decide on suitable action relative to the violation.

Article No. 153 In the case of forming on inspection committee for the works of the responsible, the committee shall:

a) Inspect the accused works from date of discovery of the incident till date of fraud.

b) Study of means followed in committing the incident and the reasons of its occurrence.

c) Survey of the stolen or lost money.

d) Determine the direct responsible and the indirect ones for the incident.

e) Suggest the means and precautions to avoid future occurrence.

Article No. 154 The committee as in previous article is formed by a decision from the deputy to the Chairman for financial, commercial and administration affairs in a way to clarify wether to refer the responsible to the legal affairs or the public deputy if any.

Article No. 155 The committee represents its final report soonest termination of inspection and investigations works to take the following procedures:

1- Notify the legal affairs or administrative deputy for the security of a copy of the report if the subject is referred to it.

2- Notify the Central Accountancy Authority with a copy of the report.

3- Recording the incident at the register set for such at the general control for financial inspection.

4- Notify the concerned financial accounts administration with a copy of the report.

Article No. 156 The concerned financial accounts administration after being informed with a copy of the report should register the stolen amounts.

Article No. 157 To secure financial control and internal adjustment to take care of:

1- Secure the trust owners of any type of trust, whatever the period of service of the trustees is.

2- Distribution of work between the workers at the financial accounts administration to follow the internal control rules.

3- Choice of workers for financial works, the treasurers, bankers and the payment representatives and trust personnel among those with good conduct and reputation, disregarding suspects.

4- Adding to internal probation authorities inspectors of good reputation and high education suitable to inspection and control works.

5- necessity of performing transfer movement between warehouses trustees and treasurers and accounts workers each few years with granting of annual leaves.

6- Giving importance to documents filing rooms, suitability of storing areas with availability of guard and security means.

7- Executing the panels and laws and instructions by the authority as issued by the various control directions at the authority and by the bulletins by the general administration for financial affairs.

Article No. 158 Those with authority to authorize payment can not order payment in his own favour or to a higher in rank. They can not also sign the check or order (first and second signature) if the check is in their name.

The Monthly and Closure Accounts:

Article No. 159 Each area presents to the authority's zones with financial accounts administration, monthly the following accounts:

a) The revision balance for the accounts funds in the registers at the level of branch account.

b) Detailed lists of the balances, accounts movement out of the analytical registers.

c) Present monthly accounts at a maximum of 20 days after the end of the account month to the general administration for financial affairs that shall assemble and prepare those accounts at the authority level within maximum 10 days from date of receipt.

d) The debit and credit invoices are sent to the other zones for the cash operations soonest direct payment in the first 5 days maximum of the following month and within 15 days of the settlements.

Article No. 160 All accountancy settlements occur before preparation of accounts and the closure lists in a away to transfer the financial year with its expenses and revenues in accordance to due principle. Also to inspect the debtors accounts in detail to know extent of no collection in total or in part, and also creditor accounts.

Article No. 161 At the end of each financial year the authority prepares the financial status and the closure accounts in a way to include:

a) The sufficient allocations to cover all obligations, responsibilities, probably losses and the allocations necessary to keep the productive capacity and form reserves in a manner assuring the authority's targets.

b) Net resultant for the current activity (surplus of current operations).

Article No. 162 To attach to the closure accounts for the authority the following:

1) Statements for safes survey for each area at the end of the last working day of the financial year.

2) A statement of the warehouses contents at the end of the financial year out of the accountancy registers.

3) A certificate from the bank having the authority's accounts showing the balance or a bank account at the end of the financial year showing the balance for the authority.

4) List of the remaining of permanent and temporary loans at the end of the financial year if any.

5) Revenues tables at items level with showing of reasons for increase or decrease.

6) Uses tables.

7) Detailed list of debts in doubt of collection at the end of the financial year.

8) List of debtor accounts elements and creditors that are personal and that exceed L.E. 1,000.-

9) Approval of the board over the closure accounts at the end of the financial year.

339

Article No. 163 The list of financial status (general balance) is presented with the closure accounts to the board early possible to send it to the Central Authority for Accountancy and concerned directions on dates assigned by the Ministry of Finance.

Article No. 164 To present the central authority for accountancy remarks to the board concerning the general balance and the closure accounts with the reply being at a date maximum two months from date of the answer by the central authority.

Publication:

Article No. 165 Publication of tenders, bidding shall be in the local journal, and possible in the foreign journals in the case of foreign purchase.

Article No. 166 Possible to publish adds in local and foreign journals for the works related to the authority activity, and its needs in case requiring such in a way to consider saving as possible, in the limits of credits as in the balance for the authority.

Article No. 167 Prohibited to publish personal adds, the one publishing it bears its cost and the administration penalty.

Cables, Telephones:

Article No. 168 Cables are not to be sent except in emergency or when necessary with as possible brief summaries.

Article No. 169 Those sending cables shall bear its value in addition to administrative penalty if it becomes clear it is personal or unnecessary.

Article No. 170 The authority can bear the cables value for congratulations, regrets sent to workers or important public figures in the name of the Chairman and his deputies on terms it is sent in their official capacity not personally.

Article No. 171 Prohibited the long distance calls of personal character.

Organization of the Authority Accounts:

Article No. 172 The financial accounts should be applied in agreement with the nature of activity by the authority and the suggestions of the experts contracting with the authority in a way to gather between financial and cost accountancy.

Article No. 173 To be determined by the Chairman as by the central administration suggestions the ledger group and the registers and the models of financial documents that are used at the authority and the documentary cycle for it, in a way to:

1) Register the accountancy operations in registers as used and explain the account components.

2) Use of a group of assisting diaries.

3) Photocopy of the monthly and quarterly accounts and the closure lists.

4) Use of a monthly revision balance.

5) Determine the pathway for each document from issuance till delivery, with periods of stay at divisions.

6) Determine the responsible relative to the delivery, keeping and follow-up of the financial documents.

Article No. 174 Each ledger entry should be confirmed in authorized original documents authorized and numbered by serials and attached to the payment form or the settlement order.

Article No. 175 Care should be taken in writing checks, and orders and to authorize it using dry ink with ball point being black or blue. Also the checks notice should be written and sent on the same day of checks export and orders delivery.

Article No. 176 A correct costs system holding is a must helping to present data and prepare studies as needed to achieve the targets of:

a) Control over costs of uses elements (production - marketing - finance and administration) either direct or indirect and to prepare costs lists.

b) Calculation of local and foreign services costs compared to tariff as stated to perform this service and to compare the elements costs.

c) Show changes out of comparisons, reasons, treatment and necessary recommendations to lower costs and guide expenditure and increase the revenues.

Article No. 177 The instructions by the National Investment Bank must be followed concerning payment of investment projects in detail and non issuance of checks for those projects except pays and similar in a manner to perform settlement.

332

APPENDIX D
MINISTERIAL DECREE NO. 200 issued in 1982
THE WORKERS SYSTEM PANEL AT THE AUTHORITY
(CONCERNING EMPLOYEE MATTERS)

ARAB REPUBLIC OF EGYPT

MINISTRY OF TRANSPORT, TRANSPORTATION

AND

MARINE TRANSPORT

THE WORKERS SYSTEM PANEL AT THE AUTHORITY

Issued By

Ministerial Decree No. 200
For The Year 1982
With Its Amendments

334

INDEX

335

The Transport, Transportation and Marine Transport
Decree No 200
for the Year 1983
for Issuing of a worker Panel at the National Authority
for Wire and Wireless Communications

Ministry of Communications:

After review of law no. 153 for the year 1980 to establish the National Authority for Wire and Wireless Communications and the decree by the board of directors for the a/m authority to approve of the workers panel project, and according to the decision of the state council it was decided:

Article No. 1 To work according to the rulings in the worker panel at the National Authority for Wire and Wireless Communications as attached to this decree, starting February first 1982.

Article No. 2 The president for the board of directors for the National Authority for Wire and Wireless Communications should apply and execute the decree.

Minister
For Transport, Transportation and Marine Transport
Engineer Soliman Metwalli Soliman

CHAPTER I

Concerning the General Rulings:

Article No. 1 The Board of directors places classification and evaluation of posts tables within the organizational structure frame work for the authority, to include each job description, determining its duties, responsibilities and necessary terms to be available relative to occupant, with its sequencing in one of the financial categories as incoming in the annexed wages schedule to this panel. The jobs at the authority are divided over type functional groups according to the nature of the work at the authority.

It is valid by a decree from the board of directors to newly place work requirements as of new jobs or to cancel present jobs. It is possible to reevaluate and classify jobs under the light of work need.

Article No. 2 The Chairman has the right to hire national and foreign experts and those who shall perform temporary occasional or seasonal works, placed in decrees according to the authority's activity and according to the attached system.

Article No.3 Filling the jobs shall be by fulfilling the necessary terms through appointment, raises, transport, deputising or transfer.

Article No. 4 The workers affairs committees are concerned to research all the workers affairs placed at the first degree and following degrees, as of appointing, transport, promotion, and granting of periodical incentive promotions, to authorize the adequacy reports for them, and other items as stated in this panel.

Also it concerns knowing of the Chairman's views about topics or the person in charge to authorize its decrees, to form a higher workers affairs committee under the authority's presidency by a decree from the Chairman.

The workers affairs committee is to be of three members at the least and of five at the most. in a way one of them be a public syndicate member, to be chosen by the syndicate's board of directors. It is possible to form more than one committee according to the work requirements and under the light of the organizational structure for the authority. The committee's decrees are authorized by the Chairman.

The workers affairs committee for branches in areas or administrations is formed by a decree from the zone (area) or administration manager as previous, in a way that one of its members be a member of the syndicate committee to be chosen by the board of the directors. If the syndicate committees are more than one in an area or administration the boards of directors should convene to choose a representative to join the committee. It is concerned of appointed workers in the area or administration till level four decree and to authorize the adequacy reports and the promotions by history reference dates, and to revise the area's manager or the administration views as in subjects presented for its opinion. Its decisions and decrees are authorized by the area manager or administration. It presents its suggestions concerning the authorization of the adequacy reports with excellent evaluation, also concerning promotion by selection to the higher workers affairs committee within the authority (organization)

The committee convenes according to its president invitation or the concerned of authorizing its decrees. Its decisions are to be issued by a majority with the exception of the case of equal opinions.

The side where the president is shall be the valid one. The workers affairs president shall resume the works for the technical trust affairs within the committee, or by the person that performs his work, without having a countable vote in the negotiations.

Article No. 5 The workers affairs committee sends its decrees and decisions to the concerned party for authorization within one week. If he does not authorize it and did not materialise an objection within thirty days from date of its arrival, it is considered valid. If he objects totally or partially within this period, he should show the reasons in written explaining his refusal, and to repeat what he objects to over the committee for repeated research under the light of said reasons. He should determine a date for decision making. If this decision making time is consumed without an opinion by the committee, the opinion by the concerned party shall be valid. If the committee holds to its opinion within the determined time internal as determined, it shall send its suggestion to the concerned party for authorization for decision with the indicated period. This decision in such a case is final.

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CHAPTER II

Appointments:

Article No. 6 The appointment shall be starting at the beginning of the type group jobs. Appointment shall be by examination, except for jobs as determined by the Chairman. He places the systems special for the examination. This is not valid for appointments for higher level jobs nor over reappointments in the same functional group. The same for appointments at levels other than minimal, except for cases determined by the Chairman.

Along with that appointment is possible in other not minimal type group jobs or by wages exceeding the first set total amount according to the result of the examination. The Chairman determines by a decree the jobs that follow such and also determines the examination system. The Board of directors places by a decision the basis to determine the level for the job and the wages.

Article No. 7 Appointment for higher jobs is to be by the minister decree, while the appointment in other placements shall be by a decision from the Chairman or his delegate according to the recommendation by the workers affairs committee.

Article No. 8 To the exception of higher posts, appointment shall be at open posts by advertisement. Advertisement shall be in the daily newspapers or inside the organization as determined by the Chairman. The advertisement includes the data related to the placement and the terms. The Chairman can relieve from advertisement, and of all or some of its terms. Also to relieve from the examination if necessity forces soonest filling of posts or if found in the works's best interest.

Article No. 9 Appointment for posts that are with prior examination according to preference with the final sequence for the examination results. At equals standards of sequencing, the higher in educational levels shall be appointed, then the earliest graduation, then the older in age.

He who has no turn for appointment with one year from date of declaration of the examination result shall have no right to placement. It is possible to appoint out of lists that has been formed since more than one year, if there are no other valid lists to elect of, this within six months following the expiry of the year. Appointment for the jobs without examination shall be as follows:

1- If the educational certificate is one of the terms necessary to be available for the person seeking the job, the priority shall be for higher educational levels. At equal standards, priority shall be granted to the highest in ranking, then the earliest in graduation then to the older.

2- If experience is the required, appointment shall be according to the experience intervals. At equal experience levels to the oldest in age.

Article No. 10 It is conditional to each appointed in one of the jobs:

1- To be Egyptian or of an Arab Nationality that treat the same with the Arab Republic of Egypt relative to public posts appointments.

2- That he would be of good reputation and good conduct.

3- That he would not be convicted by a criminal offence in a crime as those stated in other laws or by a sentence limiting freedom in crime concerned with trust or honour unless he was found not guilty.

At the same time if the court ruling includes the stop of sentence it is possible to appoint by the approval of the Chairman. If he was sentenced once the ruling does not prevent appointment unless if the workers affairs committee estimates by a caused decision out of the reasons and factious circumstances that the appointment of the worker contradicts the job needs or the nature of the job.

4- That he was not previously dismissed from service by a decision of a final penalty ruling unless it has been issued since four years at least.

5- That he meets the terms of the profession.

6- That he proves health fitness for the job through the concerned medical direction, this except for higher placements appointments. It is possible to exempt him from the health fitness term by a decree from the Chairman or his delegate.

7- That his age at the issuing of the appointment decision be not less than eighteen years old, exception made to help position, where age shall not be less than thirteen years old and not exceed sixteen.

8- That he would know how to read and write.

Article No. 11 Valid for the evaluation of national and foreign scientific degrees, the stated systems for such in the state.

Article No. 12 If the appointed worker does not receive work within a month from date of notice of the appointment decision without acceptable reason, the appointment not apply to workers obeying assignment system.

342

Article No. 13 Except for appointment in higher positions the appointed worker shall be placed under trial for six months from date of receipt of his work. Decision of his suitability shall be given at any time during the following month for the termination of the test period. In spite of such if it is clear his unsuitability at any time during the test period, his service ends by a decision from the Chairman.

If he proves not suitable after the termination of the test period, appointment becomes final, otherwise his service terminates at the end of the trial period.

At the same time it is possible to extend the test period for another six months while him remaining at the same job or to transfer him to another work.

If he proves not fit, his service ends starting from the date of expiry of the test (trial) period.

The works has due a compensation for the work done between the date of expiry of the test period and the date of leaving the job totally after informing him of the end of service decision of the equivalent of the pay he was getting.

If the worker is referred to investigation during the test period, this interval is extended by the equivalent amount of time taken by the investigation till decision reaching. The stop from work is not to be counted, also the absence even if by an excuse, if the total reaches fifteen days. The test period is counted for jobs necessitating special qualifications from the date of practice of the work, after expiry of the training period.

Article No. 14 Exception from articles (6,8) of this panel it is possible to reappoint the worker in his previous job that he occupied or in a similar job within the same work group with the same initial pay that he cashed while keeping the period spent in his previous job for reference, if he has the required terms to occupy the job that he is being reappointed to, in a manner

343

that the last presented evaluation of him at his previous job of intermediate at least regarding the wages, the reappointing in another work group is considered as a new appointment.

Article No. 15 The worker deserves a pay starting from the date of delivery of work unless he is listed with the armed forces, then he has a pay starting from date of appointment. The worker deserves at appointment the start of the stated wages according to his job degree.

Exception to that if he is reappointed in another job of a group of other nature at the same degree (level) or at another degree, he has the pay kept as cashed in his previous job if it exceeds the stated start amount of pay for the job as appointed, on terms that he does not exceed its end. This ruling is valid for previous workers at the administrative organization for the state and the local ruling units, the general organizations, the public sector companies, and those treated with professional systems specially those reappointed at the authority (organization). This is also valid for the appointed workers with complete bonuses at appointing them to permanent jobs.

Article No. 16 Gets into account the practical experience periods for workers at the organization the following periods:

1- The periods spent at one of the ministries, authorities or other corpus that has a personal balance and the local control units, and the public authorities and the public sector companies.

2- The periods of practice of free professions issued by work ordering by a law of the state.

To be placed into consideration the period prior to the enrollment date at the syndicate membership that includes the workers for this profession.

344

3- The periods spent at one of the societies, or shareholding companies for which are issued establishment laws or regulations or republican decrees. Also the companies established according to law no 43 for 1974 concerning the Arab and foreign funds investments and the free zones.

4- The periods spent with the Arab countries governments.

5- The periods spent with International organizations in which ARE is a member or shall join it.

6- The periods spent at Banks that the government accepts its guarantees.

Article No. 17 It is conditioned to calculate the indicated periods as in the previous article the following:

1- Working in the ministries, organizations and corpus with special balance and the local control units, the public organizations and the public sector companies to be calculated totally either if continuous or separate since it was spent in a job of the same nature as of the work as may be assigned for appointment, and being of equivalency in level. This includes the assignment periods in civil jobs. If it was spent daily or by bonus, it is to reach an equivalency of level based on the bonus value or the daily pay multiplied by 26 days as compared to the first level (degree) stated value that shall be reappointed. In all cases, the previous period should be following the obtaining of the educational degree as a condition to occupy the job as appointed.

2- The training periods that the laws and panels necessitate passing it after obtaining the scientific degree as a condition to practice the profession shall calculate in total the experience period for the profession to be appointed as previous according to the situation valid to practice the profession.

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3- The work periods that are spent in non ministerial or organizations with personal balances and the local control units and the general authorities, and the public sector companies either connected or separate, to be calculated according to the committee's decision (the workers affairs committee) under the light of the presented documents and with the following terms:

a) That the previous period be not less than one year.

b) That the work nature be in agreement with profession work nature as shall be appointed.

4- The work periods spent in the Arab countries governments shall be calculated in total, on terms that it is not less than one year and that its work nature agrees with to be appointed profession according to the decision by the workers affairs committee.

5- In all previous cases a statement of the experience period should be presented accompanied with the necessary documents as a proof among the appointment documentation.

Article No. 18 The worker with practical experience period calculated at appointment according to the two previous articles shall be granted at appointment a starting salary for the degree (level) stated for the appointed job, added to it the bonus value out of the bonuses for the position held for each year of the experience period that shall be calculated and which exceeds the minimum limit for the required experience as should be available to hold the position. A term is that he does not proceed his appointed counterpart in the authority in a position of the same nature as his job and of same degree on the hypothetical date for the start of the calculated experience either for earlier status in level or pay.

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Article No. 19 In the case of the worker obtaining during service a scientific degree higher than previous, suitable to the authority's works and its needs, it is possible to appoint him in a position suitable to his new degree, on terms the requirements for this position are met. His earliest status is determined from date of obtaining the degree or certificate whichever is nearest. He is to be granted the first category amount for the appointed degree (level) and a raise of its bonuses or his previous pay, added to. It is wherever higher till or if it exceeds the final amount in the category for the appointed job.

If his experience for the pervious works is suitable to his degree and the job description for which the degree is a necessity at start of appointment. It is valid to appoint him at an equivalent degree according to his earliest status and with the same pay adding to it a raise out of his bonuses exception is made to those for which this article is conforming as of the advertisement and examination necessary for the job.
(valid starting from 12/8/1983 board of directors decree on 29/5/1984).

Article No. 20 The earliest status is determined for the profession from the date of appointment. If the decree included appointment of more than one worker, the earliest status is determined as follows:

1- If the appointment is for the first time, earliest status is determined on the basis of priority of appointment as included in article (9) of this panel.

2- The earliest status is between the workers after raises on the basis of their service period from minimum to earliest.

3- Without disrupting the rule of article (15) of this panel, if the worker is reappointed in a position from another group at the same degree (level) or in another level, his earliest status in such a case is from the reappointment date.

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CHAPTER III

Wages, Subsidiaries and Value Benefits:

Article No. 21 The wages for positions of all degrees with start and end value are determined according to the attached table.

Article No. 22 A representative subsidiary is granted for the posts holders as shown in the attached table and with the categories determined in it. This subsidiary is cashed to the post holder as stated and in a case of clearance to whom shall perform it.

Article No. 23 The worker deserves an additional fee for assigning him with additional works on non determined times according to the system and in the categories that are determined by the Chairman.

Article No. 24 It was determined by a decree from the administration board the posts that has a work nature requiring granting its holders on in nature subsidy according to the performance conditions of the dangers associated. The subsidy is granted by categories and in the terms issued by the administration board decree, and within the maximum limits as decided by the Chairman.

Article No. 25 It was decided by a decree by the Chairman to grant value benefits for some workers whose work nature allows for such.

Article No. 26 The worker deserves a residence subsidy as stated for civil workers in the state.

Article No. 27 The workers in the organization (authority) shall be granted the professional subsidies as stated for civil worker in the state without dis-balancing their dues of other subsidies as currently stated in the authority or those stated by the authority.

Article No. 28 The workers holders of scientific degrees at the authority higher than BSC or BA shall be granted the benefits stated for their counterparts according to the rules stated for civil workers in the state.

348

CHAPTER IV:

Evaluation of Performance Adequacy:

Article No. 29 The Worker shall perform the assigned work in the required attention and precision and on determined dates for such according to the stated performance rates for his profession. He has to perform all what he is assigned to of works either in his field of post or other.

The level of the worker's performance is determined by an annual report including his efficiency level and other effective elements.

The Chairman places the report models in agreement with all natures of the various works.

Article No. 30 The adequacy levels are determined as follows:

- Less than 50% as weak, if his performance rate is less than 55% of the performance rates while considering the other elements in the report.

- From 50 till 60%, as intermediate, on a term that his performance rate is not less than 55% of the performance rates for his job while taking into consideration the other report elements.

- More than 60 to less than 90, as good, in a manner his performance percent is not less than 75% of the stated performance rates for his job while taking into consideration the other report elements.

- 90 degrees and more, as excellent on terms that his performance rate be not less than 95% of the stated performance rates for his profession while taking into consideration the other report elements.
  The expression should be by rank and not by figures.

349

Article No. 31 All workers except high posts obey the adequacy reports system. The report is placed for the year starting the first of January till end of the following December, and to be presented during the months of January and February and authorized by the specialized workers affairs committee duringMarch.

The worker with a weak or intermediate adequacy is declared within ten days of authorization date. He can present a petition within twenty days from declaration date. The petition should be from the branch workers affairs committee to the higher workers affairs committee at the authority. Presentation of the petition shall be facing a committee formed for such purpose by a decree from the Chairman under the presidency of one of the deputies to the Chairman and one of the heads of the sectors and one member of the board of the general syndicate other than those who joined in placing the report or authorizing it. The committee under all circumstances shall rule the petition within a month at the most from its presentation date. This report is considered as final after the termination of the petitioning date or its ruling (valid from 12/8/1983 board decree on 29/5/1984).

Article No. 32 The adequacy report is prepared by the direct supervisor, then each of the local manager and the higher president show their opinion in written in the report. Then it is presented to the concerned workers affairs committee to determine the adequacy degree that it estimates taking into consideration the report elements and the data available of the worker. To be taken into consideration in placing the report all the data connected to the worker's performance and the papers connected to his work and the performance conditions. The committee decree shall be causal if its estimation is different than that of the heads.

A decision is issued by the Chairman to determine the direct head, the local manager and the high head.

Article No. 33 The direct manager shall notify the worker first by first of all the observations over his work and performance way, especially the deficiency or relaxation or short comings, and also what his work has identified by as in excellency or special adequacy.

This is to be placed in his service file. The annual report should include these observations.

Article No. 34 The worker's adequacy report shall not be weak till proof of previous notice in written from the concerned manager of the weakness points at his performance level during the period valid for the report, also the other observations that affect in evaluating the adequacy.

Article No. 35 The worker joining the armed forces is considered as obtaining a good as a rank. If his adequacy in the previous year before enrolment was excellent, his adequacy is considered excellent as a rule. Also the reserve or on the list worker is considered as having excellent as a rank.

The adequacy rank for the members of the syndicate organization is determined with what is not less than their adequacy rank in the previous year of their election. But if the adequacy evaluation at the previous year of the election is different in an apparent manner than previous reports, re-consideration should occur within two months at the most from election date by a committee to be formed by a decisions from the Chairman, under two member of the highly placed workers in the authority and two members from the administration board of the general syndicate to be chosen by the board.

If reason occur after election affecting his adequacy evaluation a matter which decreases that evaluation extensively, the report authorization is to be made by the mentioned committee. Petitioning in such a case is facing a

351

committee to be formed by a decision form the Chairman under the presidency of the earliest deputies to the Chairman and with the membership of two deputies to the Chairman and two member from the general syndicates administration council other than those who joined in the authorization of the report.

The adequacy report does not apply to a syndicate organization member, solely working for syndicate works. No adequacy report shall be placed for delegated or on leave for work staff in a delegation or he with a special leave of absence or for study for the delegation or vacation period. The last report is valid. With that if the leave for work was to a government agency, or the public sector, the report placed by the new authority shall be taken into consideration whose granting a periodical raise or promotion during the on leave period. Also the committee for workers affairs can count on it after expiry of the on leave period. The report is placed by the new direction about the worker or at the direction where he spent most of the year. If the worker's sickness is prolonged a matter which prevents him from the performance of work for 8 months or more, no adequacy report is filed. The previous report valid relative to the raise or promotion.

Article No. 36 The worker's case is presented to the workers affairs committee in the case of a weak ranking to estimate granting him a chance at the same position or to transfer him to another work suitable to his capacities, if his efficiency is evaluated for the following year as weak, his service ends from the following day when the report becomes final while keeping his rights in a pension or a compensation reward.

3522

CHAPTER V:

Raises

Article No. 37 The worker who perfects the performance of his post duties with adequacy and on suitable dates deserves a periodical raise by the stated category for the post degree that he holds according to the wages table in a way not exceeding the end value of the stated ways.

The periodical raise is due on the first of July of each year on terms of one year time from date of appointment or date of deserving the previous raise. This is valid for who is reappointed without a time separation. As for he who is reappointed with a time separation, he deserves the raise from the next first of July after the passing of one year from appointment date. The promotion does not change the due date of the periodical raise.

Granting of the raise is issued by a decree from the Chairman or his delegate.

Article No.37(bis) If the worker continues for three years without deserving a periodical raise due to his reaching the minimum limit of granted on additional raise by the category of the periodical raise as stated for his post degree, this being on the next first of July of the gone of the mentioned period or terms that his pay does not exceed the final maximum for the post that is higher directly or its fixed salary amount.
(valid from 12/8/1983 - decision by the administration board on 29/5/1984).

Article No. 38 The periodical raise is due by the ratio of adequacy in performing the work regularly as follows:

- The worker obtaining an adequacy evaluation of a good rank and more, 100% of the raise value.

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- The worker with an intermediate rank, 75% of the raise value.

- The worker with a weak rank, 50% of the raise value, if his performance level is not less than 50% of the stated performance rates for his post, on terms than his in figure evaluation for the adequacy be· not less than 45 degrees otherwise he has no raise.

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CHAPTER VI:

Incentives

Article No. 39 The Chairman can grant the worker who performed special effort considering work assigned to he, or has achieved an increase in the performance level of work or a saving in expenses or other matters that bring a benefit, an encouragement raise equivalent to the periodical raise as stated for him, even if he has exceeded the end of value of the pay for his job. The grant does not prevent deserving the periodical raise on date. It shall be granted as follows:

First: Relative to the workers who obey the adequacy reports system, it is conditional that:

1- The worker's adequacy be evaluated as excellent in the last two years.

2- That the worker be not granted this raise more than once each two year.

3- That the number of worker who are granted the encouragement raise in one year exceed 10% of the number of workers for each degree of posts out of each in type group separately. It is possible to reach the unitary value for fractions that exceed 0.4 of the degree.

If the number of workers in the type group is less than ten, the raise is granted to one of them.
(Item three is valid from 12/8/1983, board of directors decree on 25/5/1984).

Second: Relative to the workers occupying higher posts, granting it is by a decree from the minister according to the suggestion by the Chairman without the limit that shall be stated by the board of directors annually, in a way not to grant this raise more than once each two years.

355

Third: The worker who obtains during service scientific degree higher than the first university degree level, that agree with the nature of his work at the authority and with the specializations needed by work is granted a raise as indicated according to the system to be agreed by the board.

Article No. 40 The administration board determines the rates of work performance by posts groups at the authority that are various as of way and quantity and achievement time under work circumstances. The worker can be granted an incentive who has a high performance level than that stated for his post by a ratio of the increase in performance within the limits as stated by the board and by following the maximum limit as stated by the Chairman.

The incentive is granted if the increase in performance reaches the following rates:

1- By 20% of it at least, grant by 15% of basic salary.
2- By 30% of it at least, grant by 25% of basic salary.
3- By 40% of it at least, grant by 60% of basic salary.
4- By 50% of it at least, grant by 60% of basic salary.
5- By 60% of it at least, grant by 75% of basic salary.

The Chairman can in special cases where the increase in the performance rate be more than that, in a way affecting the increase in production and work progress in a clear way, he is granted an incentive exceeding such but not exceeding 100% of the basic salary. The granting decision includes in this case in addition to the increase data in rates of performance, the data for the resulting effect from this increase and the cause for the grant.

Those grants are given within the allocated amounts in the authority's balance annually.

(Decision by the board of directors in his session of 26/12/1987).

Article No. 41 If the worker shows special adequacy and apparent distinction in performing his profession, a matter which makes him fit to bear the loads a job higher than his.

If he does not fulfil the terms of his post or terms of promotion to the allocated degree due to the time intervals. The Chairman can assign his to perform the duties of this higher post. in that case he deserves the stated benefits. If he performs the duties well, it is taken into consideration at promotion in the choice rate in a manner he would have priority before earliest service works in the choice ratio.

Article No. 42 The Chairman has financial incentives for the worker who performs services or distinguished works or who presents research or suggestions helping to improve the work methods or to raise the performance efficiency or to save in expenses.

Also the worker who performs extraordinary efforts in performing his work. All that without being restricted to article 40 rulings of this panel. The main concern would be to the minister relative to the Chairman and his deputies.

357

CHAPTER VII:

Promotion

Article No. 43 The worker's promotion is valid for he who performs his duties with adequacy and efficiency to the directly higher post as of the degree. In the type group that he belongs to when he fulfil the post terms as promoted and on terms of the presence of a vacant post.

The worker can not be promoted with efficiency evaluated the second year of report presentation.

He can not be promoted except after one year at least unless transfer is due to finance transfer or if he is not an authority worker with necessary terms for promotion during this year.

Article No. 44 The Promotion for the first degree and higher posts is by selection on the basis of the heads opinions concerning the elected staff to occupy those posts and according to the contents of their service files and other papers connected to their work that reveal the excellency elements.

Promotion to the other posts is by earliest service dates or by selection in the limits of the shown ratios separately in a way to start with the post dedicated to promotion by earliest service. It is possible to approximate the scones exceeding cover 0.4 to 1.

To be taken into consideration when occupying higher posts of the first degree and supervising posts, beside specialized efficiency availability as necessary to occupy the promoted to post the availability of the capability to endure the responsibility and have urgent decision making and to solve problems on suitable time in a suitable manner. Also the capability to lead, direct and supervise and follow-up and train, and the capability to prepare second row able to withstand the work responsibility and to decide over matters.

358

The supervisory posts are determined by a decision by the Chairman under the light of the organizational structure for the authority.

It is not valid to promote by earliest date of service a worker whose efficiency was evaluated as intermediate, if there's a follower in the earliest service who is evaluated as excellent and not included in the dedicated ratio for promotion by selection.

For promotion it is conditioned that selection be by the indicated ratios and that the worker has been evaluated as of efficiency by excellent rank in the last two years. it is preferred he who has excellent rank in the previous year directly over them. If there's no one between the elected who has obtained the excellent rank in the last year on terms of good for the last two reports, this while following the earliest date at equal efficiency rank without disregarding the stated priority in article 41 of this panel.

The Chairman can according to the higher committee suggestion for the workers affairs at the authority to add other rules for promotion.

In all cases it is conditioned to promote the worker that he passes with success the training available by the authority.

Article No. 45 The promotion shall be to higher posts by a decision from the transport minister and it shall be to other posts by a decree from the Chairman.

The promotion is considered valid from date of issuing the decree, the worker earns a start of salary as stated for the job he is promoted to or a raise whichever is higher starting from this date. This does not prevent deserving the periodical raise or date. The worker is granted the wages and incentives stated for the job he is promoted to starting from fate of his promotion to it.

CHAPTER VIII:

Travel Subsidy and Transport Expenses

Article No. 46 The worker recovers the expenses born while performing his job. This for travel and transport. The stated rules are valid relative to civil workers in the state without disrupting the rules in this panel. The category is determined that is due to the worker passed on initial wages as recovered without in place values. The minister's concern is relative to the Chairman and his deputies.

Article No. 47 It is not valid to delegate a worker to a mission for which he has due a travel subsidy except after the approval of the sector head or the concerned general manger as circumstances allow, except for special missions of money transfer where the approval is by the concerned manager.

Article No. 48 It is not valid that the period exceeds 6 months for a travel incentive within the country. At maximum necessity this period could be encompassed by a decision from the Chairman. The minister's concern is relative to the Chairman and his deputies.

Article No. 49 Travel abroad on official missions for inspection and other is to be by the Chairman's decision. The travel by the Chairman and his deputies is to be by a minister's decision. As for travel to conferences or international meeting or exhibitions to represent the state or authority, the decision is for the minister.

Article No. 50 The minister can grant the higher position holders sent for a mission abroad an amount to face the expenses for additional reception. This amount does not have to be documented.

Article No. 51 It is not valid to exceed the period to cash the travel incentive for abroad more than 6 months. At cases of maximum necessity this period could be exceeded by a minister's decision.

360

Article No. 52 The transportation occurs during performing official missions in cities by authority owned vehicles. In case of necessity by prior approval from the concerned general manager to use the means. Travel in the country between cities is to be by rail roads and is possible by approval of the Chairman deputy to travel by plane for urgent missions. These allowed to use the authority's cars in travel can use them between the cities. Travel abroad is by planes. Ships are possible if necessary or due to health conditions.

Article No. 53 The higher positions holders are granted a fixed transport subsidy of L.E. 30.- monthly except the general manger to be granted L.E. 20.- The Chairman with the minister's approval has a transport subsidy to grant to other workers whose work nature calls for regular travel in a repeated manner to face actual costs. This without violating the stated for some jobs. This subsidy is not paid in case of allocation of a car.

Article No. 54 The licensed worker to use the first degree air-conditioned railway carts at travel for a mission to Sohag, Quena, the New Valley, the western desert, the red sea any other way decided by the deputy to the Chairman, can use sleeping wagons with payment of travel subsidy reduced by a quarter for the nights he spends in trains. Travel is by normal sleeping wagons. Except for the Chairman, deputies and sectors heads they travel by excellent rate, sleeping wagons.

Article No. 55 It is possible in case of travel abroad that the authority performs insurance in favour of the worker or these appointed by he as beneficial against the trip rick for the amount of l.E. 20,000.- as a maximum limit.

Article No. 56 The authority can withstand the excess in personal luggage expenses for the worker travelling in the limit of 50% of the allowed weight over planes by prior permit from the Chairman.

Article No. 57 The worker can be allowed if from Nubia or of Sudanese Nationality or his supported member of family to travel on the expenses of the authority from place of work to his place in Nubia or Sudan once each two years. Included in the travel expenses are the transport costs between railways stations and their distant village.

Article No. 58 It is possible by approval of the concerned sector head to repay the worker the transport fees of his depending family members to the transfer area if they live with him at transfer. In the limit of what the authority would have born if transferred. Also valid with the same terms those members who join him from other parts.

Article No. 59 Without violation to the last paragraph ruling of article 73 of this panel, the worker sent for training is paid a travel to abroad incentive as stated to that who is sent on an official mission.

If the host direction bears the housing and nutrition expenses, a quarter of the incentive is deducted in exchange. Also to be deducted any monies paid to him by this direction.

If this direction pay, the worker cash money exceeding the travel incentive, the worker can at wish not pay the increase.

Article No. 60 The authority withstands the expenses of issuing a passport for the delegated worker to abroad on an official mission or for a training. Also the Chairman can grant that worker the expenses for preparation with a maximum limit of L.E. 100.- once a year.

Article No. 61 Exception to the rules related to determining the travel subsidy inside or abroad the Chairman in the cases he approves can grant actual sleeping fees in addition to three quarters as travel incentives or actual residence costs in addition to half of the travel expenses. For the Chairman, the minister is concerned for such grants.

362

Article No. 62 The concerned sector president can approve on paying on amount under the account of travel incentive and transport expenses for workers sent on official missions inside.

Article No. 63 It is not allowed to pay additional wages within the mission period.

Article No. 64 The travel incentive and the transport expenses are to be paid for the worker assigned due to his jib to be present facing courts or investigations or inquiry authorities.

CHAPTER IX:

Transport, Delegation, Deputization, Leave for Work and Training

Article No. 65 The worker can be transferred abroad according to his request or if necessitated by the general organization if the transfer does not make him pass promotion by earliest date of service. Can also be transferred to the authority the workers at the government or public sector or local control units or public authorities those of qualifications needed by the organization, or if has not those with terms of jobs fulfils the transfer to post. Transfer is to be for a post equivalent in degree to the initial one.

Article No. 65 (bis) In exception of the rulings for transfer as in this panel, workers could be transferred by groups of assisting services who are trained on crafts under the supervision of the experts at the authority or through the training institute at the organization to a post following the crafts group that agree with their training and that are equivalent to the financial degree for the transferred worker at time of transfer. His earliest service date is accounted for at the crafts job he is transferred to from date of transfer. Possible to transfer the workers by assisting services group of those proven on their files of service that they practice actually for three connected years at least till date of acting by force of this article crafts works. their transfer is to crafts jobs with same degrees and earliest service or terms their validity for those posts is proven with success by a technical examination held facing the technical committees. The transferred worker is granted according to the previous two paragraphs a raise from the raises for the degree he is transferred to even if he exceeds the end of the pay. The executive panel rules are to be followed for law no. 115 for 1983 concerning the necessary procedures to cancel or transfer the degrees from a group of assisting services to a crafts services. Transfer is to occur by decision from the Chairman.
(Valid from 12/8/1983, board of directors on 29/5/1984).

Article No. 66 It is possible by a decree from the Chairman to deputize the worker to perform another job not less than his degree, if work needs allows it. In such a case he cashes the incentive and benefits stated for the job he is delegated to.

Article No. 67 The Chairman is case of absence of a higher job holder can deputize someone to perform his work during his absence.

Article No. 68 It is possible to send a worker in a delegation or study grant or study leave with or without a pay with the terms and status stated in law no. 112 for 1959 to organize the delegations affairs, study vacations, grants, amending laws and complementary ones. The period is included for the cases presented among the contribution period by the worker in the social insurance system and in having the right for the periodical raise and promotion, this while considering the rules incoming in law 112 for 1958 as indicated. They are kept as a reminder.

It is possible to occupy this position temporarily by appointment without promotion if the delegation, grant or leave is less than a year, to be vacant at his return, also the enrolled in the army has his post kept.

Article No. 69 It is possible by a decree from the chairman if work status allows it and after approval by the worker to be delegated abroad or in the country on a condition that he has spent actual service of five years connected at the authority since appointment, while this delegation would increase his experience of work field and that the last adequacy report be of good rank at least and that his pay be totally born by the other authority, the decision for the period of delegation should not exceed the total of the connected or separate delegation periods all through the workers ten years of service.

365

It is not possible that the total of delegation and leave periods be without pay as stated in paragraphs 1 and 2 of article 82 of this panel be more than ten years separate or connected along the worker's service.

It is possible by a decree from the Chairman or the minister to bypass the stated period in the two previous paragraphs while taking into consideration the rare specializations at the authority.

The delegation period is included among the worker's contribution periods in the Social Insurance System, this while taking into consideration the Social Insurance law rules issued by law no. 79 for 1975 and the amending laws.

In other cases of delegation that are required by National welfare, that is estimated by the transport minister. It is not valid to delegate one of the higher jobs holders before the passing of one year at least from date of occupying it.

It is not also valid to promote the delegated worker to higher jobs degrees except after his return from the delegation.

Article No. 70 If the worker does not return to his work within 60 days from date of end of delegation his service ends by force of law from the following day to the termination of the period.

Article No. 71 The delegated worker deserves periodical raises that occur within the delegation period.

In cases of promotion to higher posts, a worker can not be promoted whose delegation exceeded a years as connected, this period if in sequence or separated by a time internal of one year is considered connected.

366

The worker's earliest service is determined at his return from the delegation that exceed the indicated period in the previous paragraph based on preferential placement of the number of workers equivalent to the number that proceeded him at the end of the period or all holders of the post degree at his return, which is less.

The last two paragraphs are valid starting 12/11/1983, board of directors decision on 29/5/1984.

Article No. 72 When delegating a worker, his post remains vacant, it is when necessary valid to occupy it by appointment or promotion by a decision from the Chairman if the delegation period is one year or more. When the worker returns he occupies his original post if still free or any vacant post of the same degree or he would remain in his post on personal basis in a way to settle his case at the first same degree post.

At all cases he is kept all the job benefits as before delegation.

Article No. 73 The administration board places a system to train the workers at the authority and to develop their capabilities. This system includes the plan and methods that guarantee the preparation of those elected for the promotion to assume their new jobs according to its needs, also it includes the follow-up means and the adjustment of the results for this plan.

Leaving behind training is not considered a violations of the duties for the job.

The financial treatment is determined for the delegated to train according to the stated basis for that concern, and in the case of sending the worker to train on grants presented by foreign entities or by occasion of practicing a project, and when the grant value is less than due and deserved according to the degree, the authority bears the difference.

CHAPTER X:

Vacations

Article No. 74 The worker can not quit attending his duties except by a vacation, he deserves within the limits of the stated vacations as in the following articles and according to the procedures placed by the Chairman.

If the worker stops attending, he is to be deprived of his pay for the period of absence, this along with regulatory responsibility measures. The Chairman decides for the account for absence out of his leave or grant him his pay in case of allowable balance.

Article No. 75 The worker has the right in a leave with complete pay on feasts and official events.

Article No. 76 The worker deserves an irregular vacation with pay for periods not exceeding seven days a year, at the occurrence of an emergency requiring such, where it is difficult to obtain a vacation. Each time it should not be more than two days.

Article No. 77 The worker deserves a normal leave with full pay for the actual years of work, not including holidays and official ceremonial days, except weekly holidays as follows:

1- 15 days in the first year after 6 months from date of receiving duties.

2- 21 days for he who spent one complete year in service.

3- 30 days for he who spent ten years.

4- 45 days for those above 50 in age.

The Chairman has the right to decide on increasing the normal vacation period not exceeding 15 days for those working in remote areas or if the worker is abroad.

The normal vacation is not to be shortened or postponed nor terminated except for strong reasons as necessitated by work welfare.

At all cases permit should be granted for normal vacation for 6 days connected, and the worker keeps the balance of his normal vacations. He can not have normal vacation out of that balance more than 60 days a year, in addition to normal holidays for the same year.

If the worker's service terminates before use of balance of normal vacations he deserves for this balance his basic salary that he used to take at end of serves, while not exceeding three months pay.
(the last paragraph is valid on 12/8/1985, board decision on 29/5/1984).

Article No. 78 While taking into consideration the rulings of the Social Insurance Law, the worker deserves each three years spent in service, a sick leave to be granted by a medical direction decision within the following terms:

1- Three months with full wages.

2- Six months with a pay equivalent to 75% of his basic salary.

3- Six months with a pay equivalent to 50% of his basic salary.

If he is over 50, it is with the equivalent of 75% of his basic salary.

The worker has the right to extend his sick leave for another three months without pay, if the medically concerned direction sees probable his recovery.

The Chairman can increase it by another six months without pay if the worker is injured with long treatment. determination of the sickness lies in the hands of the medical direction the worker has the right to ask to transfer his sick leave either with fill or reduced pay to normal leave if he has balance.

The sick worker must notify the work of his sickness within 24 hours from his absence unless difficult by force majeur.

Article No. 79 The Chairman places the procedure related to obtaining a sick leave. And fake causes are a violation of post duties.

If the sick worker wishes to terminate his leave and return to work, he should write a written request to be approved by the medical direction.

Article No. 80 Exception made to the sick leaves rules, the sick worker with a chronic disease as determined by a decree administration approval is granted an exceptional leave with full pay till recovery or stable enough to resume work. Or if his complete in adequacy occurs, the worker remains in sick leave with full pay till retirement age.
(valid starting 12/8/1983, administration board decree on 29/5/1984).

Article No. 81 The worker can not work with pay or without others during the stated vacation as in previous articles.

It it is proven that he worked for another direction, the organization can deprive him of his pay for the vacation or it can recollect the pay paid with corrective penalty.

Article No. 82 Licence cases for a leave without pay are as follows:

1- If one of a married couple working in the government is allowed to travel abroad for 6 months at least, this grants the other party working at the organization a vacation without a pay, the extent of the leave should not exceed the other one abroad.

The organization at all cases shall grant this leave at request if not exceeding 4 years except for operation jobs holders.

Those are determined by the Chairman according to work circumstances. Item 2 is valid for a 4 years leave case.

2- The Chairman can grant the worker a leave without pay for the reasons shown by the worker and as valued by the Chairman and according to the basis placed in a way not to exceed 10 years. it is possible by a decree from the Chairman or minister to exceed in leave periods without pay while taking into consideration the rare specializations in the authority. (Board decree on 21/9/1986).

In that case the worker can not be promoted to higher posts except at his return. Also no agreement for this leave for those posts holders before the passing of one year at least from date of start of work. Other than the promotion case to higher posts, it is not valid to promote the worker who exceeded four years leave as connected. The connected period in sequence or if separated is only with a separation of less than one year.

The worker's earliest service is determined at his return from the leave exceeding four years on the basis of placing a number of workers facing him equivalent to the number that proceeded him at the end of the four years or all the workers at the degree at his return, whichever is less.
(Valid for last two paragraphs on 12/11/1983, board decree on 29/5/1984).

3- The Chairman can grant the worker studying at a university or high institution on non attendance basis a leave without pay for the examinations.

The organization can fill the worker's post licensed for a leave without pay for one year at least by appointment or promotion.

Article No. 83 The worker deserves a leave without pay for the care of her child with a maximum limit of two years for the baby any not exceeding three times although her professional life.

Exception made of articles (125, 126) of the Social Insurance Law issued by law no. 79 for 1975 and the amending laws, the authority bears the due contributions and that for the worker according to this law, or the worker granted a compensation for her pay equalling 25% of the wages that were due on date starting from the leave period, according to its choice.

This leave should not be connected to a leave to abroad or a study leave or a leave without pay or any other type of vacations.

Article No.83(bis) It is not valid to send a worker on a leave of work or grant him vacations without pay as stated in items 91,2) of article 82 and article 83 of this panel during the test period. (Valid starting 12/8/1983 - board decree or 29/5/1984).

Article No. 84 Valid for the worker who gets leaves without pay according to article 82, paragraph (1,2) and article 83 of this panel are the stated rules concerning the report and the raise or promotion relative to the on leave for work worker.

Article No. 85 The worker deserves a leave in full pay not calculated in his stated leaves in the previous articles for the following cases:

1- To perform pilgrimage for one month, granted only once for his professional life.

372

2- A maternity leave for three months, granted only three times for her professional life.

3- The worker infecting disease by order of the concerned medical direction for the period it determines.

4- The worker deserves a leave when hit at work and the concerned medical direction decides for his treatment time in accordance with law no 79 for 1975 by issuance of the Social Insurance Law and amending laws concerning injury determination at work and due compensation.

Article No. 86 According to the rules the Chairman places he can license a worker to work half days monthly against half wages as due. She deserves then half the normal and sick leaves and valid are the rules of this panel otherwise concerned.

In exception to article 125 of the Social Insurance Law issued by law no 79 for 1975 and the amending laws the due contributions are placed according to its rule from law wages on the basis of full wages and the period is totally included in her contribution in the mentioned system.

Article No. 87 The enrolled in the army, the reserve, and on call are not deserving a leave of any type as of previous although his service.

Article No. 88 The year from first of January till the end of December forms the basis of leaves calculations that are granted to workers.

CHAPTER XI:

Workers Duties and Penalties

First: Workers Duties

Article No. 89 General post is an assignment with objective to serve the citizens to reach the public welfare according to the laws, panels and systems workable by.

The worker must follow this panel and execute it, especially:

1- That he performs assigned work by himself in good faith on determined place for work and during the stated dates for its performance according to the stated performance rates and to achieve it on suitable dates and that an official work time be allocated to perform the duties of his post. If work needs require non official time in addition to the determined time, he must meet that extra duty.

2- To execute the issued order in detail in the limits of the laws, panels and workable systems and not to divagate what he gets of informations due to his job or by its reason. Each head withstands his responsibility as of issued orders and be responsible of good work progress within his area of concern and of the good achievement of the employees.

3- That he cooperates with his counterparts in performing urgent duties necessary to insure the work progress and execute the public service.

4- Keeping to work schedule and following the procedures as determined by the Chairman in case of absence from work or being late in meeting dates.

5- To keep his job well in accord with public knowledge and tradition and to act with respect.

6- To treat well the public and perform the work on suitable times.

7- Reporting to the direction where he works of his place of residence, his social status and any change that might occur within a month at the most from variation date.

8- Saving the money and ownerships of the authority and performing maintenance.

9- Wearing the official clothing for the job.

Article No. 90 The worker should not:

1- Violate the rules and the laws as stated in the laws and panels.

2- Violation of the laws and special panels concerning tenders, bids, warehouses, purchases and all financial basis.

3- Negligence and shortcoming which gives way to loss of financial rights by the authority or one of the public figures or any of the authorities obeying the control from the Central Accountancy Authority or affecting its financial welfare in a direct way.

4- Not to reply over the claims or correspondence of the Central Accountancy Authority or causing a delay. No reply include bad manner and wrong replies.

5- Not forwarding acceptable reasons to the Central Accountancy Authority for the accounts and the supporting documents on stated dates or what the authority requires of papers, documents or other, that he has the right to check or revise or review by law.

6- To talk of any statement or data about his duties by papers or other publishing means except if declared in writting by the Chairman.

7- To divagate matters that he revised through his job if of a secret nature or any instructions. This obligation for secrecy holds even after leaving the service.

8- To keep for himself the original of any paper of official nature or remove this origin of the special files for keep even if personally achieved.

9- To contradict the security procedures private and public issued by the Chairman.

10- To gather between his job and another work performed personally or by another one that affects his duties or if it does not meet its requirements without violating law no. 125 for 1961 to appoint one person for one job.

11- To perform work for others by wages or bonus even on non official times except by permit from the Chairman.

Along he can work with a pay or bonus for regency, agency or trust matters between absent or till court assistance if the meant person is a relative till the fourth degree.

He can perform guard works for money relative to his kins on terms he notifies the direction he follows.

12- To drink liquors or gamble in clubs or public shops.

13- The worker is especially forbidden personally or by intermediary to:

a) Accept any gift, bonus or commission or loan due to performance of work.

376

b) To collect money for any person or authority.

c) To distribute pullets or collect signatures for illegal purposes.

d) To join in organizing meetings inside work without a permit from the direction determined by the Chairman while following the rulings of law no. 35 for 1976 for the issuance of labour syndicates law.

e) To buy real estates or furniture presented by the organization or court and/or administration authorities for sale if it deals with his job.

f) To practice any commercial works and especially to have profit out of works, contracts, or tenders connected to his job.

g) To join in establishing or constructing companies or accepting membership in its boards not work except if he is deputized by the government or public authorities or the local control units or the public sectors.

h) To rent land or real estates for exploitation in district where he performs his work if this is connected to his job.

i) To enter into the stock exchange world.

377

Second: Inquiries and Penalties

Article No. 91 Each worker exceeding duty in his job or appears in a non dignifiing manner shall receive penalty the worker is not exempted from penalty if he was ordered by his boss except if he proves it was by written order from that boss. The worker is not asked civilly of his personal mistake.

Article No. 92 It is not valid to drop a penalty over the worker except after inquiry in written and hearing him and investigating his defence. The inquiring responsible by himself or by request of the inquired with can listen to witnesses and revise the registers and papers that he sees are useful for the inquiry and to perform inspection.

But it is possible relative to a notice penalty or a deduction from pay for a period not exceeding 3 days that the inquiry or investigation be verbal but written as of content in the issued decision for dropping penalty.

In all cases, the issued decision should be caused.

Article No. 93 Penalties allowed are:

1- Notice.

2- Postponing the validity date of the raise for a period not exceeding three months.

3- Deducting from the pay for a period not exceeding 60 days a year either by deduction in full or over instalments. Deduction should not exceed 1/4 of the monthly pay.

4- Stopping the periodical raise in all or in part.

5- Stop of work for a period not exceeding 6 months. The worker gets half of his wages only during the suspension.

6- Postponement of promotion when due for a period not exceeding two years.

7- Reduction of wages within the limit of the raise.

8- Reduction of degree to the directly lowest one.

9- Reduction to the lowest degree job directly with reduction of pay to the amount before the promotion.

10- Firing from service.
Heads of sectors do not receive more than:
1- Notice.
2- Blame.
3- Retirement.

Article No. 94 The penalties panel is issued by a decision from the board and showing the types of violations and shows the inquiry procedures and the responsible directions to perform it.

Article No. 95 Specialization in signing penalties is as follows:

1- The Chairman signs the penalties as in items from 1 to 9 in paragraph one of article (93) of this panel and for the third degree posts as in item 10 of the same paragraph, he can also apply items 1 and 2 of the 2nd. paragraph of the a/m article.

2- For higher jobs each in its field he can sign a penalty of notice or deduction from pay for a period not exceeding 30 days a year in a manner each time does not exceed 15 days. The Chairman can close the investigation before penalty within 30 days either by closing the subject or by applying a penalty in his range of office or to refer the worker to court.

3- The penalty court is concerned of signing penalties stated in article 93 of this panel.

Article No. 96 The Chairman can stop a worker on temporary basis for 3 months. This period is not to be extended except by decree from the court concerned for the period determined. Following the worker's pay stops at 1/2 the value starting from the suspension date.

The matter should be presented to the court to report of payment or non of the remaining pay. If the matter is not presented in 10 days payment is due in total till court decision.

The court shall issue its decision within 20 days from date of presentation, if the court does not issue its order within this period, the pay is paid complete.

If the worker is innocent or investigation is closed or if given a notice or a deduction in pay for a period not exceeding 5 days, he is repaid what has been stopped. If the penalty is harder, the authority decides the procedure for the suspended wages. If he is fired or placed to retirement, his service ends from suspension date.

The pay paid is not to be refunded. If he is suspended, his service ends from date of firing or retirement.

If there's a criminal punishment resulting in firing, his service end, from hearing of sentence unless suspended before.

Article No. 97 Each worker held in custody on reserve basis or by criminal penalty ruling is stopped by the power of law from work during his prison period, 1/2 of his pay is stopped, if on reserve basis and is totally deprived from his full pay in the case of final criminal penalty sentence. At his return the matter is presented to the Chairman to decide on penalties. If he is not responsible he cashes his suspended 1/2 pay.

Article No. 98 The worker's promotion is not to be viewed when he received a penalty receipt after the shown periods for each as follows:

1- Three months in case of a deduction in pay for 5 days till 10 days.

2- Six months in case of deduction out of the pay for 11 days to 15 days or suspension from work for 5 days to 10 days.

3- 9 months in case of a deduction of pay for more than a 15 days period and for less than 30 days or stop of work for 11 to 15 days.

4- One year in case of deduction from pay for 30 days or more or in case of a promotion delay penalty or stop of work for a period exceeding 15 days or reducing pay.

5- The prevention form raise in all or in part for not less than one year.

6- One year in the case of sentence over a worker for a criminal penalty connected to his work. The postponing periods as indicated are calculated from date of signing the penalty even if interfering with another period as a sequence to a previous penalty.

Article No. 99 When signing a reduction penalty to a lower post, the worker holds the lowest post than his before trial, while deserving the periodical raises in the future in the category stated for the lowest post by following the terms of due and determining his earliest service date for the loss previous record in addition to the period he spent at the higher post while keeping his wages at sentence issuing date or at the date of penalty signing.

He is not valid for promotion for a year and half from date of ruling or penalty. If the worker is reduced to a lower post with reduction in wages he can not be promoted before two years from sentence or penalty date.

381

Article No. 100 A worker is not to be promoted when presented to a penalty court or criminal court or if suspended during stop or referring. In that case his post is held for him for one year. If trial is longer or stop becomes more and proved not guilty or had a notice or deduction or a stop from work for 5 days and less. It is the least when promoted to calculate the earliest service date at the promotion post from date it occurred. If he is not referred to the penalty or criminal court, or if not suspended, he is granted the pay from date.

The worker is considered referred to penalty court from the date of the authority's request or by the request of the Central Accountancy Authority for the administration deputy order to raise the case.

Article No. 101 Termination of service does not prevent the worker for any reason form penalty court if inquiry started before end of service. It is valid for violations resulting in loss of right of any of the general treasury rights to raise a case even if inquiry did not start before end of service, this for 5 days form its termination. He who has his service ended can pay a fine not less than L.E. 5.- and not reach the total pay that was paid per month at end of service to pay the fine of what he has as dues at the authority within the limit possible to keep out or by administrative reserve placement over his funds.

Also, in exception of rule of article 144 of the law of Social Insurance no. 79 for 1975, and the amending laws as of one instalment compensation or saved amount if any at due date in the limits of the part available for reservation.

Article No. 102 The penalty case falls relative to the worker present in the service after year from date of knowledge of the direct head at work of the violation or 3 years from date of committing it whichever is nearest. This period is cut by any procedure of inquiry or accusation or trial, and the period is valid newly starting of the last procedure.

382

If the accused are numerous, break of period for one relative to the other causes the same for they, even if clean cut procedures were not taken against them.

Even with such if the crime is proven, the case does not fall unless by the fall of the criminal case.

Article No. 103 To be considered to erase the penalties held against the worker by the expiry of the following periods:

1- 6 months in case of notice or deduction from pay for a period not less than 5 days.

2- One year in case of deducting from pay a period exceeding 5 days.

3- Three years relative to other penalties except firing and placement to retirement by verdict or penalty decree.

The cancelling is to be by a Chairman's decision if the worker's conduct and work since penalty is satisfactory through the annual reports and his service file or the opinion of his mangers.

Consequentially to cancelling is considering the affair closed in the future and not affecting his rights or compensations that resulted of it. The penalty paper are lifted from file .

Article No. 104 The authority keeps a personal account of the penalties resultant as placed against the workers.

Payment from this amount is for social and cultural as well as sports purposes for workers according to the terms and situations that are determined by the Chairman.

CHAPTER XII:

End of Service

Article No. 105 The service of the worker ends at 60 years of age while considering the rulings of the Social Insurance Law issued by law no. 79 for 1975.
(Board decision 15/7/1986).

1- Non fitness for service health wise.

2- Resignation.

3- Firing.

4- Loosing the Egyptian Nationality with consideration to item 1 of article 10 of this panel.

5- Firing by the president of the Republic in cases determined by the special law.

6- Sentence by criminal penalty in one of the crimes stated in law of punishments or of similar as stated in other laws or by a penalty restricting freedom in a crime against honour or trust unless the ruling is stopped.

   If the ruling has been issued for the first time this does not lead to terminate the service unless if a committee evaluates the workers affairs by a cause decree out of the ruling reasons and the event circumstances that the remaining in work of the worker contradicts the post requirements or the work nature.

7- Cancelling the job.

8- Death.

Article No. 105 The Chairman can issue a decree to refer the worker to the retirement according to his request before reaching the legal age in a way the requestor's age be not less than 55 at date of application and that the remaining period till retirement be less than a year.

The insurance rights are settled to he referred to retirement according to rulings of the previous paragraph passed on the subscription period in the Social Insurance System adding to it the remaining period for reach the legal age, or two years whichever is less.

It is not possible to reappoint the workers obeying the material either being ex-workers at the authority or from abroad.
(Valid from 12/8/1983 - board decree on 29/5/1984).

Article No.105 (bis) (1) The Chairman can issue a decree to refer the worker whose age is less than 55 to retirement by request if alone or joining others at a production project according to regulation issued by decree from the concerned minister in administration development.

The worker cashes in this case a bonus equalling a year's wage while adding two years to the period as calculated in the pension.

It is not valid to relocate the workers receiving rulings of this article either being previous workers at the authority or outsiders.
(Valid starting 12/5/1983 - board decree on 29/5/1984).

Article No. 106 The health non fitness for service is proved by the medical direction as concerned. The worker is not supposed to be fired for health non fitness before exhaustion of his sick leaves and normal leaves unless he requests service termination without waiting the end of his leaves.

Article No. 107 The worker can present his resignation in writting and his service does not end except by a decree issued of acceptance of his resignation.

Decision of resignation should be within 30 days from date of presentation otherwise it is accepted by rule.

If the request is non-conditional or linked to a term service does not end except if his request is answered.

It is possible to delay acceptance of resignation for reasons related to work welfare with notice given to the worker. This delay should not exceed 15 days in addition to the 30 days as indicated.

If the worker is referred to court, revising the acceptance of his resignation is not due except after ruling without firing or placement to retirement.

The worker should continue to work till he is informed of resignation acceptance or till expiry of period as stated in this article.

Article No. 108 The worker is considered as presenting his resignation in the following cases:

1- If he stops attending to work without a permit for 30 days in sequence, unless he presents within 15 days what proves that his stop was beyond will and for an acceptable reason. In such a case the concerned authority can decide not to deprive him of his pay if he has a balance of vacations. Or he should be deprived of his pay.

   If he does not present the reasons for absence or if he presented them and were refused his service is considered ended from date of stop attendance.

If he stops work without permit reaching more than 45 days non connected during the year and did not present an acceptable excuse, his service shall be considered ending from the following day to complete the period.

If he joins the service for any foreign direction without permit by ARE government, his service ends from date of joining this foreign direction.

In all cases he is not considered resigning if penalty measures were taken against him during the following month of work stop or date of joining the foreign entity.

Article No. 109 The worker is paid his dues till the day where his service ends for reasons shown in article 105 of this panel. In case of firing due to health reasons the worker deserves a full pay or a reduced amount according to the state till end of sick leaves or termination of service as by his request.

If the end of service is by the worker's request he deserves his pay till date of issuance of the resignation acceptance decision or expiry of period after which the resignation is acceptable unless he was suspended or stopped attendance, he deserves his pay till the previous day before the stop or suspension. In case of end of service due to job cancellation or by the ARE president's decree, the worker deserves a compensation equivalent to his pay till informed of the decision without violation to the previous paragraph.

Article No. 110 If the worker is punished by firing or retirement his service ends from date of verdict or decision.

He deserves a compensation equivalent to his pay till notification of verdict or decision. If he is suspended or stopped attending to work at issuance of decree or decision, his service is considered as ended from date of stop. The pay during stop period previously paid is not refundable.

Article No. 111 If the worker dies while in service the equivalent of his pay for three moths is cashed complete to face the funeral expenses with a minimum of L.E. 100.- Payment is for widows, or oldest sons or to whom shall perform the cashing and payment of those expenses.

2 7

CHAPTER XIII:

Social and Health Care

Article No. 112 The authority presents social care out of a fund for service to social purposes, especially as follows:

1- Presenting financial assistance in cases of disaster.

2- Presentation of social services as entertainment, culture, sports for workers.

The fund panel is issued by a decree from the Chairman including sources of finance and expenditures and management methods.

Article No. 113 Work continues by the Health Insurance System. The Board can approve of applying any other system of treatment for better service.

CHAPTER XIV:

Closure Rules

Article No. 114 The rules of this panel are valid for workers at the authority, and for better benefits over job affair with special laws.

The Civil Workers System Law rules in the state unless otherwise stated in this panel in a non-contradictory way.

Article No. 115 The Chairman determines the work days in the week and its hours according to public interest.

Article No. 116 The account of stated days shall be the normal calendar.

Article No. 117 The decisions are declared that are issued concerning workers affairs in periodical bulletins issued by decree from the deputy Chairman to regulate its distribution and hanging over the news board.

Bulletins, instructions, decrees and administration documents are to be placed over the new board or at a well seen place at work to be legally known without violation to the distribution of decrees issued over the administrations.

Article No. 118 The state council alone can place the opinion as caused in what the authority requires of explanations related to these rules.

Article No. 119 The Chairman determines the special clothing for the service workers and the operations categories.

Article No. 120 The worker is granted at effective date of panel the first amount for his degree or a raise according to the rulings whichever is bigger.

370

For those with pay exceeding the final for the degree or the fixed final, he keeps the difference workers holders of degrees with benefit or earliest service added in consideration at appointment and still are the appointed degree at start amount adding the benefit as stated or wages paid at execution of panel whichever is bigger.

This ruling is valid from 1/2/1982. Date of work start at the workers panel in the authority without payment of financial differences for the previous period on 1/7/1986.
(Board decree on 15/7/1986).

3 11

ANNEX NO. I:

Concerning the hiring of national or foreign experts and those who perform temporary works and gradual workers.

FIRST: Experts Hiring System

Article No. 1 Appointment of experts for a specific job or a determined mission according to the authority's needs from among rare specializations or those with experience that are hard to be present at the authority and after the approval by the minister.

Article No. 2 The expert's appointment contract for the suitable period is to complete the job or mission as assigned. At need it is possible to renew the contract for the suitable period .

Article No. 3 The concluded contract with the expert includes the following data:

- Names of contract parties.
- Personal data related to the expert.
- Determination of work or assignment to the expert, with its duties and responsibilities.
- The complete stated money benefit.
- Penalties probable.
- The concerned court to revise the conflicts.
- Other data that the authority might add without violation to the rulings of this decree.

Article No. 4 The authority must investigate about the certificates and papers presented by the expert. At all cases it is conditional to authorize what he presents of papers from the concerned authority.

SECOND: Workers Hiring System for Those Who Perform Temporary Works

Article No. 1 Temporary workers follow.

Article No. 2 Temporary works mean the seasonal or sudden works.

Article No. 3 The temporary workers are hired by contract within the range of financial credits as listed in the balance for the authority. The contract includes the following data:

- Names of parties.
- Personal data related to the worker and contract periods.
- Sudden and seasonal works.
- Complete bonus as stated for works.
- Penalties.
- Court to revise court conflicts.
- Other data that could be added by the authority and not violating the rule.

Article No. 4 To be taken into consideration while writing the contract as indicated to include the financial and administration rules as in the panels issued for that concern. The authority can add rules agreeing with the nature of temporary works subject of this contract.

Article No. 5 The Chairman can cancel the contract in case of violation of terms.

393

THIRD: System for Hiring Gradual Workers

Article No. 1 The Chairman concludes with the gradual worker a contract for five years including the following data.

- Names of contract parties.
- Complete compensation as stated.
- The medical direction concerned to affect medical examination.
- The working days, hours and holidays.
- Penalties.
- Approval of guardian in written.
- Other data that might be add not violating the rules of the system.

Article No. 2 Conditions are:

- He would be Egyptian.
- His age not less than 13 years and not more than 16 years.
- Holder of the preparatory certificate, a term that could be avoided as determined by the Chairman.
- Fit to work health wise.

Article No. 3 The gradual worker obeys the practical and theoretical training system as stated by the authority and at the 5th year of joining the training he should pass a test facing a technical committee formed by the Chairman.

If he succeeds he is appointed at a vacant post of the crafts group. If he fails, he is trained further for 6 months then retested. If he fails his training contract expires.

Wages and Incentive:

Article No. 4 The gradual worker is granted at joining the training a compensation of L.E. 180.- annually to be increased by L.E. 12.- annually.

2 24

Article No. 5 The authority can grant the worker in kind benefits suitable to his work nature.

Article No. 6 The gradual worker follows the health care and social system stated for workers.

Leaves:

Article No. 7 The gradual worker has the right in a leave with full pay on holidays and official events.

Article No. 8 The gradual worker deserves the following leaves with full pay:

- Suddenly caused leave for a maximum total of 7 days a year and not exceeding two days per time, while considering article (76) of this panel.
- Normal leave for 15 days a year after 6 months from date of joining the training.
- Sick leave for one period and 20 days a year.

The gradual rights falls in the leave after one year.

Penalties:

Article No. 9 The penalties that should be signed over gradual workers are:

- Notice.
- Deduction from the complete compensation within 15 days per year.
- Cancelling of contract.

Contract Termination:

Article No. 10 The worker's contract ends by appointment at one of the crafts group jobs or by his failure in the second test as stated in article (3) of this system.

395

APPENDIX E
ADMINISTRATIVE DECREE No. 704
CONCERNING THE CREATION OF COMMITTEE FOR DEVELOPING THE ANNUAL BUDGET (REVENUE AND EXPENSES ONLY)

ADMINISTRATIVE DECREE NO. 704 DATED 9/11/1993
CREATION OF COMMITTEE FOR DEVELOPING THE ANNUAL BUDGET

Item No. 1

Formation of a main committee for the preparation of the budget of ARENTO for the fiscal year 94/95. The main committee is headed by the Chairman and the following members:

Vice Chairman - Projects Planning & Execution
Vice Chairman - Operation and Maintenance
Vice Chairman - Finance, Administration and Commercial Affairs
CDC - Administrative Affairs
CDC - Information and Computers
CDC - Telecommunications Systems
CDC - International
CDC - Stores & Purchases
CDC - Financial & Commercial Affairs
General Manager - Organization & Administration
G.M.- Personnel Affairs
G.M - Financial Affairs
Administrative Manager - Central budget
Representatives - Ministry of Finance, Planning, Central System for Organization and Administration.

Item No. 2:

Formation of branched Committees which convene periodically according to the attached table. The committee is responsible for the preparation of the Budget Project on condition that they finish their task at the latest on 2/12/93. The completed project of the Budget is to be submitted to the main committee.

Item No. 3

The main committee is to be in session for the first time at 10 AM, Saturday, December 25, 1993 to discuss and approve the Budget Project.

Item No. 4

The budget Project -after preparation - is shown to the Chairman to be submitted to the Board of Directors before sending it to any other authority.

Table of Branched Committees and Convening Dates

1st Committee

For estimating income and transferences.
This committee has to convene on November 11, 1993 at 10 AM and is headed by the CDC of Financial & Commercial Affairs and the following members:

CDC - Information & Computers
GM - Financial Affairs
GM - Local Networks
GM - Traffic Design
GM - Subscribers Accounting
GM - International Commercial Affairs
Administrative Manager - International Accounting
A.M - Plan
A.M - Central Budget
A.M. Foreign Financing
Representative - Ministry of Finance, Planning.

2nd Committee

For preparation of the first phase of the Budget (Wages)
This committee has to convene on the November 21, 1993 at 10 AM. It is headed by the CDC for Administrative Affairs and the following members:

G.M. - Personnel Affairs
G.M. - Public Affairs
G.M. - Organization & Administration
G.M. - Financial Affairs
A.M. - Financial Affairs of Employees
A.M. - Efficiency of Production
A.M. - Plan
A.M. - Central Budget
A.M. - Employment Organization
A.M. - Personnel Planning
Supervisor - Personnel Budget
Representatives - Ministry of Finance, Planning, Central System of Organization and Administration.

3rd Committee

For the preparation of the second phase of the Budget (running expenses and transferences).
This committee has to convene on November 22, 1993 at 10 AM. It is headed by the CDC of Financial and Commercial Affairs, and the following members:

G.M. - Evaluation & Depreciation
G.M. - Building Maintenance
G.M. - General Affairs
G.M. - Foreign Currency
G.M. - Administrative Affairs and Foreign Transferences
G.M. - International Engineering
G.M. - Operation Technical Administration
G.M. - Financial Affairs
A.M. - International Accounting
A.M. - Central Budget
A.M - Financial Accounting
A.M. - Foreign Financing
A.M. - Loans
Representatives - Ministry of Finance, Planning.

4th Committee

For preparation project of third and fourth phases (constructions & Loans)
This committee has to convene on November 23, 1993 at 10 AM. It is headed by the CDC of Plan & Follow-up and the following members:

CDC - Planning of Projects
CDC - Buildings and Power
CDC - Telegraph & Telex
CDC - Information & Computers
CDC - Local Networks
G.M. - Wireless projects
G.M. - Switching Planning
G.M. - Transmission
G.M. - Financial Affairs
A.M. - Foreign Currency
A.M. - Central budget
A.M. - Foreign Financing
A.M. - Plan
A.M. - International Accounting
A.M. - Planning & Execution Accounting
A.M. - Financial Accounting of Stores & Purchases
A.M. - Central Loans
Representatives - Ministry of Finance, Planning, Central System of Organization & Administration.

APPENDIX F
POLICY REFORM AND INSTITUTIONAL DEVELOPMENT WORKPLAN

(Including the Presentation Agenda For the Group Meeting Where the Findings and Recommendations Were Formally Presented)

POLICY REFORM AND INSTITUTIONAL DEVELOPMENT ASSESSMENT FOR THE ARAB REPUBLIC EGYPTIAN NATIONAL TELECOMMUNICATIONS ORGANIZATION (ARENTO)

Preliminary Draft - Findings and "Opportunities for Excellence"

April 17, 1994
Meridien Hotel, Cairo Egypt

TIME	ACTIVITY	SPEAKER
4:30 - 5:00 PM	Registration Coffee, Tea & Soft drinks will be served	
5:00-7:15 PM	**Presentation of Draft Final Report - Findings and Recommendations**	
	Moderator: Ronald Behms - Project Manager K&M	
5:00-5:15 PM	Opening Remarks	Mr. Jose Trujillo - K&M
5:15 - 5:45 PM	Organizational and Operations Assessment	Eng. Randy Yri - K&M
5:45-6:15 PM	Regulatory Framework	Mr Jack Isbell - K&M
6:15-6:45 PM	Profitability/Self-Financing	Mr. Ron Behms - K&M
6:45-7:00 PM	Legal Considerations	Mme Mona Zulfikar - Shalakany Law Firm
7:00-7:15 PM	Summary - Wrap-up	Mr. Ron Behms - K&M
7:15-7:30 PM	Closing Remarks	Chairman Eng. M. El Soury - ARENTO Mr. Jose Trujillo - K&M
7:45 PM	**Dinner hosted by K&M**	

SHORT PRECISE LIVELY

WORK PLAN

for

POLICY REFORM AND INSTITUTIONAL DEVELOPMENT ASSESSMENT

to be performed for

ARAB REPUBLIC OF EGYPT
NATIONAL TELECOMMUNICATIONS ORGANIZATION
(ARENTO)

Under contract to

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
(USAID)

By

K&M ENGINEERING & CONSULTING CORPORATION
2001 L Street, N.W. Suite 500
Washington D.C. 20036

January 17, 1994

Reviewed and Approved by
USAID January 17, 1994

Reviewed and Approved by
ARENTO January 18, 1994

TABLE OF CONTENTS

I. BACKGROUND, OBJECTIVES AND ASSESSMENT FOCUS

Background

K&M Engineering and Consulting Corporation (K&M) has been selected by USAID to perform a Policy Reform and Institutional Development Assessment of ARENTO in the Arab Republic of Egypt.

Objectives

The objectives of the assessment are to:

(1) Identify those specific regulatory, legal and institutional constraints that, if uncorrected would impede the development of the telecommunications sector

(2) Identify those specific financial and operational actions that could be undertaken during the next two years that would enable ARENTO to:

(a) Meet increasing demand

(b) Attain a degree of financial independence

(c) Operate on a more commercial basis

(d) Finance expansion without relying on grants, soft loans from outside donors, infusion of funds from the general GOE budget or other governmental agencies

(3) Identify specific organizational structure options and human resource policies and practices that would enable ARENTO to retain and develop qualified experienced personnel and motivate them to do a good job

Assessment Focus

To perform the assessment and arrive at concrete recommendations, the study will focus on the following areas:

A. Regulatory/Legal Framework

- Based on the regulatory/legal issues defining the relationship between ARENTO and the GOE, determine how the telecommunications sector could be restructured to give it more independence and, at the same time, more clear cut accountability

B. Organizational Structure and Operations

- Integrate the operational and organizational conclusions and recommendations from the Operations & Maintenance and Service Improvement Studies performed under Contract no. 263-0177
- Based on the present staffing, personnel policies, compensation levels for employees, etc., determine ARENTO's human resource requirements, including the recruitment, training and proper compensation policies needed to enhance productivity and efficiency; and avoid the loss and turnover of productive personnel
- Provide recommendations on ways and steps to improve the personnel management process

C. Profitability/Self Financing

- Determine how ARENTO can encourage the participation of the private sector in the purchasing of bonds and other financial instruments that could be issued by ARENTO and assess the related legal ramifications

In this regard, K&M will endeavor to develop recommendations that not only satisfy ARENTO's future needs, but also have a reasonable prospect of acceptance by ARENTO, ARENTO's customers and the GOE decision makers.

II. OVERVIEW OF CONTRACTOR TASKS

In addressing the aforementioned objectives, the K&M team will perform the following tasks as highlighted below:

Task 1: Work Plan

- The K&M Team will prepare a detailed workplan, for USAID and ARENTO review and approval, setting forth the sequence of tasks, activities of each team member, and a schedule for attaining critical milestones

- The K&M Team will perform mobilization activities and establish contacts with high level Egyptian officials to refine the implementation process and to identify GOE resources that may be necessary to carry out Task 2 below

Task 2: Data Requirements

The K&M Team will collect data, assemble documents and information pertaining to:

- Legal and regulatory framework that impact the telecommunications sector
- Charter and by-laws of ARENTO
- Tariff studies in progress or completed
- Other studies completed in the last five years for ARENTO
- Operation and Maintenance studies in progress or completed
- Network Management studies in progress or completed
- All MCTMT policies and practices that influence the areas of study

In parallel with the assessment of policy, legal and institution factors, a review of previous related studies and assessments will be made. The prior studies include the Telecommunication Pricing Strategies study and the study of Operation and Maintenance Practices. Findings and recommendations from these studies will be thoroughly reviewed and integrated into the final report of the Sector Assessment.

Task 3: Regulatory/Legal Framework

The K&M Team will review and analyze the existing laws, policies, procedures, regulations, issues, opportunities, and impediments which affect the Telecommunications Sector to determine changes necessary to increase the efficiency with which the sector operates and thus to better attract private investment. This review and analysis will include:

- The present Egyptian regulations concerning the Telecommunications Sector in Egypt, identifying any restrictions or limitations to the most efficient provision of telecommunications services

- The legal/regulatory framework, to determine the extent of ARENTO's current autonomy, especially as it relates to financial performance and its ability to determine tariffs and retain revenues and its ability to retain its own revenues and use them in the telecommunications field and recommendations and steps of improving

- The legal framework under which ARENTO has been established

- The charter, by-laws, and other regulations under which ARENTO operates

- the need to establish a relevant governmental institution with regulatory jurisdiction over natural monopolies that would be responsible for determining the reasonableness of rates, quality of service and utility of operations for all utilities

Task 4: Organizational Structures and Operations

The K&M Team will review the existing overall organizational structure of the Telecommunications Sector including the Ministry of Transportation and Communication's relationship with ARENTO. The K&M Team will assess those institutions which directly or indirectly affect the telecommunications sector. Focus will be on identifying those areas where change could enhance efficiency, flexibility, overall system reliability, cost savings and increased revenue generation.

The following aspects will be given particular attention:

- Previous studies covering service improvements, tariff development, operations and maintenance and billing and collection practices
- Personnel policies and compensation
- Organizational development plans and objectives
- Management development programs and objectives
- Skill development training programs and facilities
- Ability to attract and retain employees

Organizations to be evaluated include:

- ARENTO headquarters and regional operations
- Other organizations and departments of Ministry of Transport, Communications and Maritime Transportation (MTCMT) which have a direct effect on ARENTO

Task 5: Profitability/Self-financing Assessment

The K&M Team will review the profitability and self-financing capacity of ARENTO. The K&M Team will review the findings of the pricing study to assess ARENTO's capability to encourage the participation of the private sector in financing future expansions. The K&M Team will also review the effects of ARENTO's current and proposed future tariff rates on future profitability in order to attain a degree of financial independence.

Task 6: Preliminary Recommendations

Based on the results of Tasks 2 through 5, preliminary recommendations will be provided that would enhance the autonomy and financial viability that is necessary to increase interest in investment and expansion of the telecommunications sector. Recommendations may include the following:

- Changes in policy/regulation
- Organization and operating structures
- Operating procedures
- Relationship among institutions

- Delineation of a plan to implement and integrate recommendations
- Tentative schedule for implementation
- Quantification of benefits of proposed changes
- Possible participation of the private sector in telecommunications sector
- Risk/reward allocation
- Insurance issues
- Investment attractions

Finally, the preliminary recommendations will conclude with a detailed presentation of recommended policy and institutional reform measures.

Task 7: Draft Final Report

- The K&M Team will include the findings of this assessment together with the findings of the pricing and the operation and maintenance studies, delete any inconsistency between them, and will prepare a draft final report outlining findings and recommendations for review before holding meetings for discussions.

Task 8: Presentation of Findings

The K&M Team will meet with ARENTO and USAID as requested to answer specific questions and clarify the contents of the draft Final Report as required.

The K&M Team will organize and conduct a presentation of the assessment at the ARENTO headquarters in Cairo. The presentation will be for representatives of MTCMT, ARENTO, other GOE organizations designated by the Ministry or ARENTO and USAID, and other donors designated by USAID. The presentation will emphasize the study methodology, major findings and recommendations, and long range plans involving policy reforms and institutional development that will allow the telecommunication sector to grow to meet increased demand, while attaining a high degree of financial independence.

The K&M Team will prepare and conduct brief independent presentations for the senior management of MTCMT and USAID, if requested, emphasizing the major conclusions of the assessment, recommendations and the long range plan involving reforms and institutional development.

Task 9: Final Report

The K&M Team will incorporate all appropriate clarifications and suggestions into the final report.

III. ASSESSMENT DELIVERABLES SUMMARY

Deliverables	Hard copy for Review	Presentations	Comments/Changes Requested
Interim Reports with preliminary findings and recommendations:			
- Legal and Regulatory Framework (Tasks 3 and 6)	*Yes - Issue 2/28/94	No	Yes - to be received by 3/10/94
- Organizational Structures and Operations (Tasks 4 and 6)	*Yes - Issue 2/23/94	No	Yes - to be received by 3/7/94
- Profitability and Self-Financing Assessment (Task 5 and 6)	*Yes - Issue 2/28/94	No	Yes - to be received by 3/10/94
Draft Final Report (Task 7)	Yes - Issue 3/17/94	*Yes - present 4/06/94 (Task 8)	Yes - to be received by 3/31/94
Final Report (Task 9)	Yes - Issue 4/14/94	No	No

Original Issue January 17, 1994
* Revised February 2, 1994

A. ASSESSMENT DELIVERABLES

- Task 1 - Work Plan
- Task 2 - Interim Report on "Information and Data Requirements"
- Task 3 - Interim Report on the "Legal and Regulatory Framework" with preliminary findings and recommendations
- Task 4 - Interim Report on the "Organizational Structures and Operations" with preliminary findings and recommendations
- Task 5 - Interim Report on the "Profitability and Self-financing Assessment" with preliminary findings and recommendations
- Task 6 - "Preliminary Recommendations" will be included with the issuance of individual Interim Reports for Task 3 through Task 5
- Task 7 - "Draft Final Report" incorporating comments from the preliminary recommendations
- Task 8 - "Formal Presentation" Of Findings And Recommendations where input, comments and suggested changes will be requested
- Task 9 - "Final Report" incorporating comments and suggested changes arising from the formal presentation

A summary of proposed key milestones and responsibilities including major deliverables, is presented below for consideration and review by USAID and ARENTO.

Task/Sub-Task		Responsibility			Critical Activity	Completion Date
		K&M	ARENTO	MTCMT		
TASK 1: Work Plan (Project Weeks 1-4)						
1.1	Prepare Preliminary Work Plan (Including Requests for Information)	X				Dec 10, 1993
1.2	Conduct Preliminary Planning & Organization Meeting with USAID and ARENTO Top Management	X	X			Dec. 12, 1993 Dec. 13, 1993
1.3	Present Work Plan to USAID for Comment and Review	X				Jan. 17, 1994
1.4	Present Work Plan to ARENTO for Comment and Review	X				Jan. 18, 1994
1.5	Finalize and Submit Revised Work Plan	X			X	Jan. 18, 1994
1.6	Make Formal Presentation(s) to ARENTO Officials with a "Kick-Off" meeting	X				As Scheduled

1211

‹	Responsibility			Critical Activity	Completion Date
	K&M	ARENTO	MTCMT		
TASK 2: Data Requirements (Project Weeks 1-12)					
2.1 Identify Initial Data Requirements	X				Dec. 10, 1993
2.2 Submit Initial Data Requirements to ARENTO	X	X			Dec. 12, 1993
2.3 Update Initial Data Requirements	X				Jan. 16, 1994
2.4 Present Data Requirements to USAID	X			X	Jan. 17, 1994
2.5. Present Data Requirements to ARENTO to Initiate Data Collection	X	X		X	Jan. 18, 1994
2.6. Conduct Interviews, Follow-Up on Data Requested and Initiate, if Necessary, any Additional Data Requests	X	X		X	See Tasks 3,4 and 5
2.7 Complete Data Collection	X	X		X	Feb. 24, 1994
2.8 Issue Interim Report to USAID and ARENTO	X			X	Mar 3, 1994

Task/Sub-Task		Responsibility			Critical Activity	Completion Date
		K&M	ARENTO	MTCMT		
TASK 3: Legal/Regulatory (Project Weeks 1-18)						
3.1.	Finalize Work Plan (See Task 1)	X				Jan. 18, 1994
3.2.	Initiate Data Collection (Task 2)	X			X	Jan. 18, 1994
3.3.	Complete Data Gathering	X	X	X	X	Feb. 24, 1994
3.4.	Conduct Interviews, Legal Analysis and Policy Analysis	X	X	X	X	Continuous
3.5.	Receive Financial Impact Assessment of Recommendation Options (Task 5)	X			X	Feb. 28, 1994
3.6.	Issue Interim Report with Findings and Preliminary Recommendations to US-AID, ARENTO and MTCMT (Task 6)	X			X	Mar. 4, 1994
3.7.	Receive Informal (Verbal, or Written) Comments from USAID, ARENTO and MTCMT Regarding Interim Report Findings and Preliminary Recommendations		X	X	X	Mar. 10, 1994
3.8.	Issue Revised Findings and Recommendations for Inclusion in Draft Final Report (Task 7)	X			X	Mar 14, 1994
3.9.	Present Draft Final Report Findings and Recommendations at a Joint Seminar with USAID, ARENTO and MTCMT	X	X	X	X	Mar 24, 1994
3.10.	Receive Formal Written Comments from USAID, ARENTO and MTCMT Regarding Findings and Recommendations in Draft Final Report		X	X	X	Mar 31, 1994
3.11.	Issue Revised Findings and Recommendations for Inclusion in Final Report (Task 9)	X			X	Apr. 4, 1994

Task/Sub-Task		Responsibility			Critical Activity	Completion Date
		K&M	ARENTO	MTCMT		
TASK 4: Organizational Structure and Operations (Project Weeks 1-18)						
4.1.	Finalize Work Plan (See Task 1)	X			X	Jan. 18, 1994
4.2.	Initiate Data Collection (Task 2)	X			X	Jan. 18, 1994
4.3.	Review Previous Studies and Identify Operational and Organizational Inconsistencies	X				Jan. 22, 1994
4.4.	Complete Data Gathering	X	X		X	Jan. 31, 1994
4.5.	Complete Interviews	X	X		X	Feb. 5, 1994
4.6.	Resolve Inconsistencies in Previous Studies				X	Feb. 6, 1994
4.7.	Complete Preliminary Analysis and Develop Preliminary Conclusions and Recommendations	X				Feb. 8, 1994
4.8.	Issue Interim Report with Findings and Preliminary Recommendations to USAID, ARENTO and MTCMT (Task 6)	X			X	Feb. 28, 1994
4.9.	Receive Informal (verbal or Written) Comments from USAID, ARENTO and MTCMT Regarding Interim Report Findings and Preliminary Recommendations		X	X	X	Mar 7, 1994
4.10.	Issue Revised Findings and Recommendations for Inclusion in Draft Final Report (Task 7)	X			X	Mar 11, 1994
4.11.	Present Draft Final Report Findings and Recommendations at a Joint Seminar with USAID, ARENTO and MTCMT	X	X	X	X	Mar 24, 1994
4.12.	Receive Formal Written Comments from USAID, ARENTO and MTCMT Regarding Findings and Recommendations in Draft Final Report		X	X	X	Mar 31, 1994
4.13.	Issue Received Findings and Recommendations in Final Report (Task 9)	X			X	Apr. 4, 1994

Task/Sub-Task	Responsibility			Critical Activity	Completion Date
	K&M	ARENTO	MTCMT		
TASK 5: Profitability and Self-Financing (Project Weeks 1-18)					
5.1. Finalize Work Plan (See Task 1)	X				Jan. 18, 1994
5.2. Initiate Data Collection (Task 2)	X				Jan. 18, 1994
5.3. Complete Data Gathering	X	X			Feb. 24, 1994
5.4. Conduct Interviews, Analysis and Forecasts	X			X	Feb. 8, 1994
5.5. Establish Financial Benchmarks and Financial Impact Assessments at Recommendation Options for Task 3	X			X	Feb. 28, 1994
5.6. Issue Interim Report with Findings and Preliminary Recommendations to US-AID, ARENTO and MTCMT (Task 6)	X			X	Mar 4, 1994
5.7. Receive Informal (Verbal or Written) Comments from USAID, ARENTO and MTCMT regarding Interim Report Findings and Preliminary Recommendations		X	X	X	Mar 10, 1994
5.8. Issue Revised Findings and Recommendations for Inclusion in Draft Final Report (Task 7)	X			X	Mar 14, 1994
5.9. Present Draft Final Report Findings and Recommendations at a Joint Seminar with USAID, ARENTO and MTCMT	X	X	X	X	Mar 24, 1994
5.10. Receive Formal Written Comments from USAID, ARENTO and MTCMT Regarding Findings and Recommendations in Draft Final Report.		X	X	X	Mar 31, 1994
5.11. Issue Revised Findings and Recommendations for Inclusion in Final Report (Task 9)	X			X	Apr. 4, 1994

Task/Sub-Task	Responsibility			Critical Activity	Completion Date
	K&M	ARENTO	MTCMT		
TASK 6: Preliminary Recommendations (Project Weeks 1-14)					
6.1. Issue Interim Report with Findings and Preliminary Recommendations for Tasks 3,4, and 5:					
• Regulatory and Legal Framework (Task 3)	X			X	Mar 4, 1994
• Organizational Structures and Operations (Task 4)	X			X	Feb. 28, 1994
• Profitability and Self-Financing Assessment (Task 5)	X			X	Mar 4, 1994
6.2. Prepare and Issue Informal Comments and Suggested Changes to Interim Reports Findings and Preliminary Recommendations for Inclusion in Draft Final Report (see Task 7)					
• Regulatory and Legal Framework (Task 3)		X	X	X	Mar 10, 1994
• Organizational Structures and Operations (Task 4)		X	X	X	Mar 7, 1994
• Profitability and Self-Financing Assessment (Task 5)		X	X	X	Mar 10, 1994

	K&M	ARENTO	MTCMT	Activity	Date
TASK 7: Draft Final Report (Project Weeks 1-15)					
7.1. Issue and Distribute Draft Final Report with Findings and Recommendations Prior to Presentation/Joint Session (see Task 8)	X			X	Mar 17, 1994

				Activity	Date
	K&M	ARENTO	MTCMT		
TASK 8: Presentation of Findings (Project Weeks 15-18)					
8.1. Present Draft Final Report with Findings and Recommendations at a Joint Seminar with USAID, ARENTO and MTCMT	X			X	Mar 24, 1994
8.2. Prepare and Issue Formal Written Comments and Suggested Changes Regarding the Findings and Recommendations		X	X	X	Mar 31, 1994
8.3. Prepare and Issue Revised Findings and Recommendations for Inclusion in Final Report (Task 9)	X			X	Apr. 4, 1994

	K&M	ARENTO	MTCMT	Activity	Date
TASK 9: Final Report (Project Weeks 17-19)					
9.1. Prepare and Issue Formal Written Comments and Suggested Changes to the Findings and Recommendations Presented in the Draft Final Report (see Tasks 7 and 8)		X	X	X	Mar 31, 1994
9.2. Receive Comments and Suggested Changes and Prepare and Issue Revised Findings and Recommendations for Inclusion in the Final Report	X			X	Apr. 4, 1994
8.3. Prepare and Issue Final Report	X			X	Apr. 14, 1994

K&M has assembled the following senior managerial and technical personnel to perform this important study assignment:

Dr. John Kupsa (Study Coordinator) Dr. Kuspa has over 26 years of diversified technical management and leadership experience at high level of the U.S. Government, in the U.S. and in Europe . Prior to joining K&M, he served as the Assistant for Environment the Office of the Assistant Secretary of the Army (Installations, Logistics, and Environment) at the Pentagon where his responsibilities included setting up the process for Department-wide environmental reporting and technical information systems, and leading all organizational and environmental policy studies. Dr. Kuspa has also served as Study Director for Several NATO policy studies for the Chairman of the Joint Chiefs of staff, for a special advanced technology white paper for the Department of Energy, and for a two-year study of weapon requirements at the U.S. Army Concepts Analysis Agency. Dr. Kuspa has led a 940-man engineer unit in Germany, a SS person office of technicians and Russian linguistics in Washington, and a 25-man U.S. delegation during sensitive negotiations with Russian counterparts. This breadth of study and leadership experience is complemented by his extensive formal education: A Ph.D in Nuclear Engineering, MBA in Financial Management, M.S. in Nuclear Engineering, M.S. in Civil Engineering, and B.S. in Physics.

Mr. Ronald W. Behrns (Project Manager) has over 20 years of management experience in the telecommunications industry in both the regulated and non-regulated business environments. Mr. Behrns, a Certified Management Accountant since 1978, is uniquely qualified for Project Management in telecommunication assignment studies. Mr. Behrns has held senior management positions including participation on K&M's previous ARENTO study for which Mr. Behrns was integral in deriving the cost profiles for the various cost centers within the ARENTO organization. In addition, Mr. Behrns held senior management positions with GTE (11 years) and General Telephone of Illinois (9 years). Mr. Behrns career accomplishments include: designing and developing the management control process and systems for emerging competitive enterprises in Russia; developing and implementing information integration and planning to provide anticipatory responses to change; directing the development and implementation of complex costing and management control systems to meet management information requirements; evaluation and implementation of strategies, business plans and on-going analysis of marketing and operating results; and, as Accounting Administrator for GTE, coordinated the liaison between headquarters financial staff and 26 operating unit financial staffs on accounting issues, strategies and business thrusts. Mr. Behrns holds a BS in Accounting and Management and an MBA in Finance.

Dr. Stanley R. Holmes (Policy and Finance Specialist) has over 16 years of professional experience in the telecommunications industry. Throughout his career, Mr. Holmes has specialized in evaluating and developing new product strategies. His areas of expertise include policy analysis Telecommunications Service Marketing, cost analysis, product implementation, timing, and price structuring. Mr. Holmes has participated in international business expansion programs through directing the development of business cases and strategic justification prior to launching foreign investment ventures.

Mr. Holmes is presently the Director of Market Strategy for Alcatel Network Systems. Previously, Mr. Holmes held several senior management policy positions with GTE including the positions of Market Service Assistance Vice President and Economic Policy and Analysis Director. He was employed for 10 years with GTE: Mr. Holmes holds a PH.D. in Economics from A&M University, Texas; a M.S. in Economics and a B.B.A. in Finance from East Texas State University.

Mr. Randy J. Yri (Technical Specialist) over 27 years of experience in the telecommunications industry including particular expertise in network engineering, network maintenance and support, construction, network planning, and marketing/product management. Mr. Yri's positions with GTE of Florida and GTE Telephone Operations HQ in Irving, Texas have included Director of Network Planning, Director of Transmission and OSP Engineering, and Director of Technical Support and Services. In addition, previous to GTE, Mr. Yri worked for Advanced Services Planning of Stamford, CT. where he was responsible for establishing a new corporate department which managed corporate telecommunications R&D priorities. Mr. Yri's recent experience includes formulating market strategies for the deployment of Personal Communication Services (PCS) within GTE. In addition, Mr. Yri has concentrated his recent efforts on overall policy issues within GTE's Government Affairs, Regulatory Affairs, Industry Affairs, and Public Affairs divisions. MR. Yri holds ASSE in Electronics from the Wisconsin School of Electronics and an MBA from the University of New Haven.

Eng. Mohamed El-Erian (Technical Specialist) has over 37 years experience with the Arab Republic of Egypt National Telecommunications Organization (ARENTO). Mr. El-Erian areas of expertise include telecommunications networks; outside plant planning (fiber optic cables, multiplex equipment, coax); managing and supervising outside plant projects; design criteria and specifications for outside plant operations; and international procurement. Mr. El-Erian has held the following positions with ARENTO: Sector Chief of Networks, General Manager Network Planning, Manager of Long Distance Planning, Manager of Long Distance Systems. Mr. El-Erian is fluent in both English and Arabic. Mr. El-Erian holds a BS in Electrical Engineering from the Alexandria University.

Mr. Sameh Mobarek (Administrator) is currently a Business Development a Finance Associate for K&M Engineering and Consulting Corporation. Mr. Mobarek was an integral participant on the K&M project team for the Egyptian Electricity Authority Policy Reform and Institutional Assessment Study which was recently completed. The focus of the study was to assist the Ministry of Energy and Electricity and EEA in increasing the commercialization of the energy and electricity sector. Mr. Mobarek's role in the study was to review the Management Information System and to review the energy pricing and demand forecasting methodology and loan management methods and practices. Prior to K&M, Mr. Mobarek has held positions with Anderson Consulting and Bechtel Power Corporation. Mr. Mobarek is fluent in English and Arabic. Mr. Mobarek holds a BS in Electrical Engineering, Computer Science and Economics and is presently pursuing an MBA in International Finance.

Shalahany Law Office - Represented by Mahmoud Safwat, legal advisor. The Shalahany Law Office will serve as K&M's legal advisors/specialists for this assignment. They have a distinguished group of Legal Advisors that will be available to assist in investment law, taxation law, banking law, stock exchange law, contract law and Human Resources law.

MANAGEMENT APPROACH

It is K&M's view that an important factor for insuring a successful outcome of this study effort will be effective participation by the MTCMT and ARENTO counterpart organizations and a close working relationship with the K&M team. In addition, due to the demanding requirements of developing proposals for new policies, laws, rules and regulations, while at the same time completing several task assignments in related finance, administrative and human resources areas, it is incumbent upon K&M to provide sufficient study support management and overall coordination.

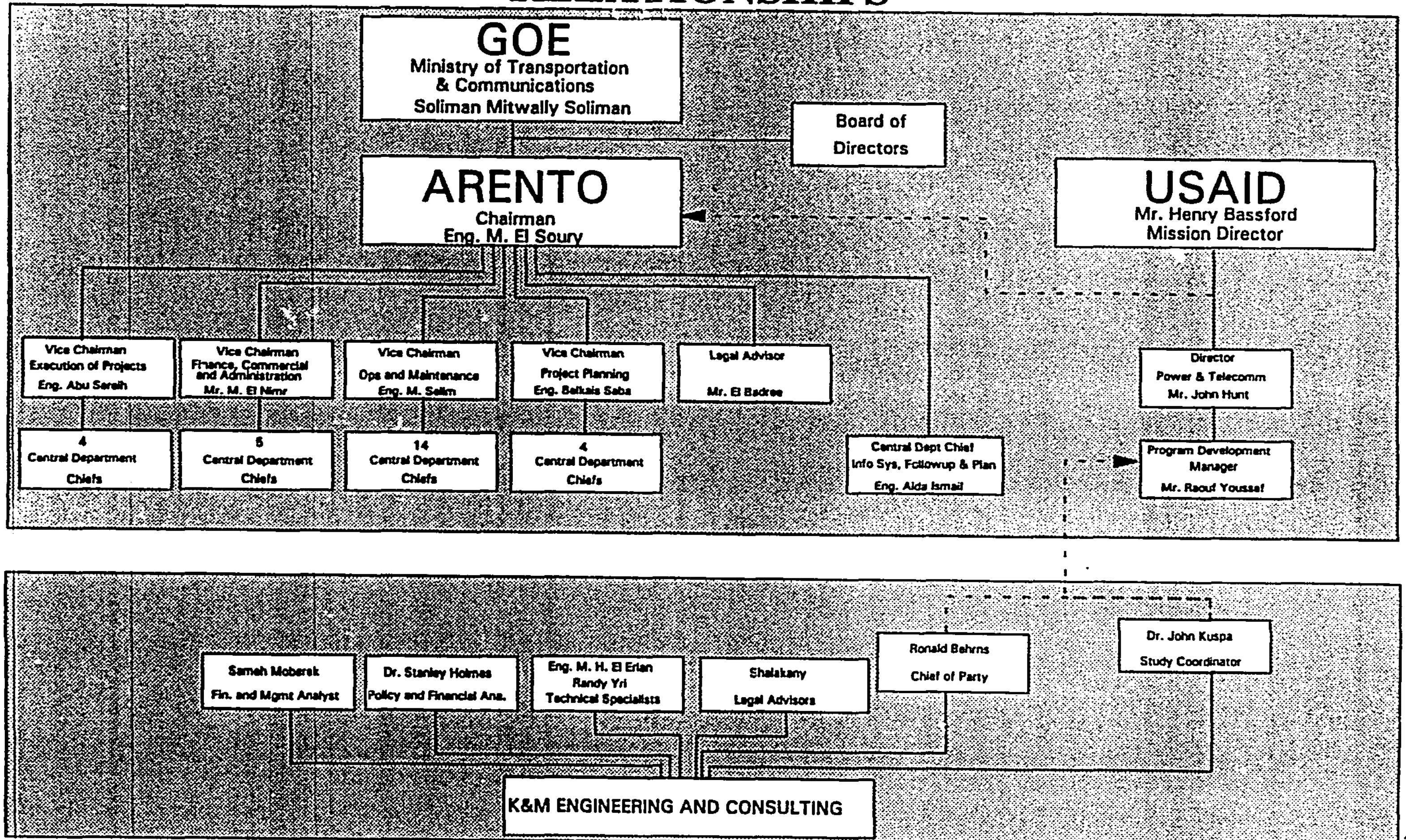
A. Counterpart Organization and Reporting Relationships

The proposed organizational structure, along with attendant reporting relationships as illustrated on the following page, is intended to reflect and reinforce this overall philosophy of an integrated, joint manning approach for undertaking the ARENTO Policy Reform and Institutional Assessment project.

B. Study Support Management Approach

Due to the sensitive nature of and the intensive time requirements associated with policy and institutional reform, K&M feels strongly that it must provide competent study management support both in Washington D.C. and here in Cairo in an effort to backstop its Chief of Party for this assignment. Accordingly, K&M will make available its Manager of Projects to provide overall management direction, coordination, and smooth editing of the Final Report.

COUNTERPART ORGANIZATIONS AND REPORTING RELATIONSHIPS



Personnel assignments by task along with a summary of key milestone dates are presented in the chart below. In assigning the work load balance between on-shore and offshore activities, K&M has been especially sensitive to the need for maintaining effective management control over and technical support for its team members while they are in Egypt gathering data, as well as performing work back in the United States.

	Workplan	Data Collection	Legal and Policy Framework	Tasks Organiza-tional Structures and Operations	Profitability and Self-Funding Assessment	Draft Final Report	Presentation	Final Report
ohn uspa	S	S	S	S	S	S	S	S
on s	T	T	S	S	S	S	T	T
olmes	S	S	T	S	T	S	S	S
andy Yri	S	S	S	T	S	S	S	S
ameh Iobarek	S				S			
I. El rian	S	S	S	S	S	S	S	S
halahany aw ffice			S	S	S	S	S	S

T = Task Manager
S = Support

SECTION VIII - DATA AND INFORMATION REQUIREMENTS

In performing the task assignment presented in this Work Plan, the K&M Team will require access to the following information, data and materials. To assist ARENTO's counterpart organizations and the MTCMT in executing and assembling these documents in a manner consistent with the milestone responsibility dates contained in the proposed schedule, this request has been organized along functional and task-related lines as presented below.

A. REGULATORY AND LEGAL FRAMEWORK (TASK 3)

- Any public laws impacting the operations of ARENTO, including but not limited to:
    - Any tax laws
    - Import and export laws
    - Employment laws
    - Occupational Safety laws
    - Environmental laws
    - Laws regulating rates and tariffs
    - Laws governing telecommunications services, financial performance and quality of service
    - Laws or policies governing ARENTO debt sources, whether public or private

- Role of authority that are currently exercised between ARENTO and the various ministries of the GOE

- Any public laws that are in effect or being developed that govern the creation of public organizations and corporations

- Any public laws governing the relationship between public organizations or corporations and the various branches of the Government of Egypt (judicial, legislative and executive)

- Any public laws governing private or quasi-private organizations or corporations

- Any public laws governing the relationship between private organizations or corporations and the various branches of the Government of Egypt (GOE)

- Governmental administrative practices, rules and policy statements that are in effect or planned, that impact or establish the framework of the relationship between ARENTO and the Ministries of Transportation and communication, Finance and International Development

- Any governmental administrative practices, rules and policy statements that impact ARENTO's autonomy in setting rates, quality of service, financial performance and the provisioning of telecommunications services

- A list of reports and information that are exchanged between ARENTO and the various branches of the GOE

- A list of meetings that are regularly held or planned to be held between ARENTO and the various branches of the GOE, including agenda topics and attendees

- A copy of the charter and by-laws of ARENTO

- A statement outlining the legal and effectuated authority of ARENTO

- A list of the board of directors and officers of ARENTO

- Any planned or proposed changes that are being contemplated in laws, administrative practices, rules and policies related to ARENTO's operations and the various branches of the GOE

- A copy of any other studies completed within the last five years for ARENTO

- The GOE's strategic goals and objectives related to the economic development of Egypt and the telecommunications sector

- The strategic objectives and goals related to the development of a market-based economy for either the executive branch of the GOE or the MTCMT

B. Organizational Structure and Operations (TASK 4)

- Existing operational & organizational structure of ARENTO:
    * headcount
    * functional organization
    * salary structure

- Description of functions and responsibilities for each segment of the organization

- ARENTO and MTCMT policies, standards and practices covering the hiring, development, administration, promotion, management continuity and management of human resources

- Existing and planned (5 yrs) expense budget showing total dollars and training by Sector

- Policies, standards and practices relative to budget development and management

- Policies and practices relative to training and development

- Political and legal factors affecting ARENTO manpower management

- Critical skills/employees

- Two year history of the number of employees leaving those critical areas by month and average duration for backfilling positions

- HR objectives of GOE and Ministries of Finance, Communication and Transportation, and International Development

- Names, addresses and telephone numbers of 4-6 people that have left each critical area over the past year and approval to contact for survey

- What plans exist for the management of information within ARENTO and for improving billing and collection processing

- How are technical and operational standards developed and managed within ARENTO

- How is frequency spectrum managed and controlled

C. Profitability and Self-financing Assessment (TASK 5)

- Actual results reflected in Financial Reports for the fiscal year ending June 30, 1993; Balance Sheet; Income Statement; Source and Use of Funds; Capital Spending-Projects

- Information concerning the financing of other ARENTO sponsored commercial telephone operations

- Approved budgets and projected financial statements for the fiscal years beginning January 1, 1993 through January 1, 1997:

  * Balance Sheets
  * Income Statements
  * Source and Use of Funds Statements
  * Capital Spending Plans/Projects

- Required budgeted amounts to accomplish the strategic goals and objectives as reflected in:

  * Balance Sheets
  * Income Statements
  * Source and Use Statements
  * Capital Spending Plans/Projects

- List of strategic goals and objectives, including but not limited to service penetration levels, lines of switching capacity available, lines in service, tariff rates that are to be changed and planned sources of project funding

- Actual outstanding debt with repayment schedules broken down between public and private sources for the fiscal year ending June 30, 1993

- The planned debt with repayment schedules broken down between public and private sources for the next five years, fiscal years beginning July 1, 1993, through July 1, 1997

- Planned tariff changes and restructuring to be proposed during the next five years (fiscal years beginning 1993-1997)

- Infrastructure changes that are included within the approved and required five year budget plans related to:

    * Training
    * Increased mechanization, i.e. new or planned data processing capabilities, additional personal computers
    * Reorganizations, in other words, creating additional departments such as Marketing or Sales.

    * New or expanded services to be promoted and developed over the next five years.

- Budget assumptions related to exchange rate changes over the next five years (fiscal years beginning July 1, 1993 through July 1, 1997)

- Foreign held debt with repayment schedules by country, for fiscal years beginning June 30, 1993 and for planned foreign held debt for fiscal years 1993-1997

- List of grants, loans and aid received over the last 5 years and amounts anticipated over the next 5 years

IX. INTERVIEW PLAN

A. Interview Coordination Process

After presentation and acceptance of the Work Plan by the ARENTO Senior Management on January 18, 1994, Mr. Mohamed El-Erian will begin scheduling the first interviews with each of the Vice-Chairmen. The overall Interview Plan will be considered preliminary until agreement is reached with the Vice-Chairmen for proceeding with interviews of the personnel shown for their area of responsibility. Mr. El-Erian will proceed with scheduling the remainder of the interviews, upon agreement with each Vice-Chairman, in line with the overall Project Work Plan timeline.

Mr. Abdul Hafez will coordinate the interview with Mr. Ismail Kamil, who is consultant to the Ministry of Planning. The intent of this interview is to understand the long-run objectives and direction for Economic Development within Egypt and the assumptions regarding the Telecommunications Infrastructure in the success of that plan.

B. Proposed Interview Schedule

LOCATION	INDIVIDUALS TO BE INTERVIEWED	INTERVIEWERS	INTERVIEW SCHEDULE	STATUS
Ramsis	**Eng. Mahmoud El Soury Chairman**	Behrns/ Holmes/Yri	3/2/94	
Ramsis	**Mr. El Nimr Vice Chairman-Finance & Admin.**	Holmes/ Behrns/ Yri	1/18 1/27	Complete follow up on 1/27
Ramsis	Fisal El Dahshoury CDC-Finance	Holmes/ Behrns	22/1/94	
Ramsis	Zakaria El-Sherif Gen.Manager Human Resources	Yri/Berhns	1/18 1/19	Complete 1/18 - F.U on 1/19
Ramsis	Zahir El Mitini CDC-Admin.	Holmes/Yri	22/1/94 2:00 p.m.	
Ramsis	**Mr. Mohamed Selim Vice Chairman-O&M**	Holmes/ Behrns/Yri	27/1/94	
Opera	Gamil Ibrahim CDC of Exchanges	Yri	24/1/94	
Opera	Nazmy Dawood CDC-O&M of Transmission	Yri	24/1/94	
Opera	Gamal Shehata CDC-Cairo East Zone	Yri	24/1/94	
Alexandria	Gaber Metwally CDC- Alexandria Zone	Yri	2/2/94	
Heliopolis	Mohamed Abdel Rehim Zone Manager Cairo East	Yri	24/1/94	

Zamalek	Farouk Kamel Zone Manager-Cairo West	Yri	25/2/94	
Nasr City	Shawky Abdel Moniem CDC-Training	Yri	24/1/94	
Nasr City & Zamalek	Mrs. Samia & Bayoomi One Exchange Manager from Cairo East and West to be identified	Yri	24/1/94	
Ramsis	**Mrs. Belkais Vice Chairman Planning**	Holmes/ Behrns/Yri	20/1/94 27/1/94	
Opera	Mahmoud Abo Shady CDC-Exchange Planning	Yri	22/1/94	
Opera	Sami Nakhla CDC-Local Net. Planning	Yri	22/1/94	
Opera	Aida El Shinnawy CDC-Transmission Planning	Yri	22/1/94	
Opera	Ahmed Abdel Rahman CDC-Power, Building and AC Planning	Yri	22/1/94	
Ramsis	**Mr. Abdel Fattah Abu Sereih Vice Chairman Project Execution**	Holmes/ Behrns/Yri	25/1/94	
Opera	Mohamed Montaser CDC-Exchange Execution	Yri	25/1/94	
Opera	Atif El Kilany CDC Local Network Exec.	Yri	25/1/94	
Opera	Ismail Hassan CDC Transmission Execution	Yri	25/1/94	
Ministry of Planning	**Mr. Ismail Kamel Consultant to the Ministry of Plg. (info on economic development of Egypt)**	Holmes/ Behrns/Yri	22/1/94 10:00 a.m.	
Ramsis	**Aida Ismail CDC-Info & Computers**	Holmes/Yri	26/1/94	
Ramsis	Mr. El Bedree Legal Advisor	Behrns/ Holmes/Yri	26/1/94	

APPENDIX G
PERSONNEL INTERVIEWED

PERSONNEL INTERVIEWED

The following individuals were interviewed in the course of completing this Task 4 Assessment:

ARENTO Employees

Mr. El Nimr	Vice Chairman - Finance & Administration
Mr. Mohamed Selim	Vice Chairman - O&M
Madame BelKais El Saba	Vice Chairman - Planning
Mr. Abu Serie	Vice Chairman - Execution
Mr. Faisel El Dahshoury	CDC - Finance
Mr. Zahir El Mitini	CDC - Administration
Mr. Zakaria El Sherif	General Manager - Human Resources
Mr. Gamil Ibrahim	CDC - Exchanges
Mr. Nazmy Dawood	CDC - Transmission OM
Mr. Shawky Abdel Moneim	CDC - Training
Mr. Farouk Kamel	Zone Manager - Cairo West
Mr. Mahmoud El Shair	Zone Manager - Suez
Mr. Mahmoud Abu Shady	CDC - Exchange Planning
Mr. Sami Nakla	CDC - Local Network Planning
Mr. Aida El Shinnawy	CDC - Transmission Planning
Mr. Mohamed Montaser	CDC - Exchange Execution
Mr. Atif El Kilany	CDC - Local Network Execution
Mr. Ismail Hassan	CDC - Transmission Execution
Mr. Ismail Kamel	Consultant to the Ministry of Planning
Madame Aida Ismail	CDC - Information & Computers
Mr. El Bedre	Legal Advisor
Madame Fekria Allam	CDC - New Services

K&M Employees (ARENTO retirees)

Mr. Abdel Hafez	Vice Chairman - Planning (Retired)
Mr. Mohamed El Erian	CDC - Exchange Planning (Retired)
Mr. Moussa Gayed	CDC - Finance (Retired)

External Contacts

Mr. Abdel Bairi	Head Regional Office for the Arab States (ITU)
Mr. Richard Calkins	Director Exchange Carrier Association (USA)
Mr. Samir M. Ibrahim Donia	Vice Director Transit Dept. (Suez Canal Authority)

APPENDIX H
FOREIGN ECONOMIC TRANDS AND THEIR IMPLICATIONS FOR THE UNITED STATES

FOREIGN ECONOMIC TRENDS AND THEIR IMPLICATIONS FOR THE UNITED STATES

Report for the Arab Republic of Egypt

Prepared by

the United States Embassy, Cairo

June, 1993

KEY ECONOMIC INDICATORS (1)

	FY 89/90	FY 90/91	FY 91/92
DOMESTIC ECONOMY			
Population (millions)	52.9	54.4	55.9
Population growth rate (%)	3.1	2.8	2.7
GDP (LE billion, current prices) (2)	81.3	103.3	131.1
GDP/Capita (LE, current prices)	1537	1899	2345
GDP (factor cost, 86/87 prices, LE billion)	52.6	55.1	57.6
Urban consumer price increase (percent) (3)	21.2	14.7	21.1
Commercial Bank exchange rate (LE/USD) (4)	2.61	2.97	3.32
Unemployment (%)	8.5	8.6	9.0
Government budget deficit (as % of GDP)	11.5	8.8	6.8
BALANCE OF PAYMENTS ($ millions) (5)			
Trade Balance	-8296	-7538	-6403
Exports (f.o.b)	3145	3887	3636
of which petroleum (crude & product)	1229	1971	1651
Imports (c.i.f)	-11441	-11425	-10040
Service balance	2826	3667	3575
Receipts	6783	7679	8561
Of which: Suez Canal dues	1472	1662	1950
Investment income	777	1049	1076
Tourism (6)	1072	924	1727
Payments	-3957	-4012	-4986
Of which: interest payments	-1688	-1530	-1311
Transfers	4836	5262	6591
Governmental (7)	1094	1487	1123
Worker remittance (8)	3743	3775	5467
Current account balance	-634	1391	3763
Reserves including gold ($ millions)	2267	4512	8724
Total external civilian debt ($ billions)	42.2	27.0	28.1

U.S - EGYPT BILATERAL RELATIONS (9)	1990	1991	1992	1993
US aid to Egypt (US FY, $ millions, obligations)	2595	2357	2387	2322
Economic grant aid	892	767	897	822
Military grant aid	1300	1300	1300	1300
Agricultural commodity loans (PL480)	203	165	150	150
Commodity export credit guarantees (GSM 102)	200	125	40	50
US trade with Egypt (calendar year, $ millions)				
Exports to Egypt	2248	2720	3087	3097
Imports form Egypt	396	206	435	466
US direct investment in Egypt (end year stock, $ millions)	1465	1515	N/A	N/A
Of which petroleum	1127	1110	N/A	N/A

Notes:

(1) Primary sources are Egyptian and U.S. Government official data, IMF International Financial Statistics. Egyptian Fiscal Year is July-June.
(2) Government estimates, they exclude the informal sector.
(3) Period Average. CY 92: 13.6 percent; December 1992 over December 1991: 9.3 percent.
(4) Period Average. Free Market was introduced February 26, 1991.
(5) Central Bank data compiled on a cash basis.
(6) Reported by banks; probably understates actual flow.
(7) Cash aid.
(8) Central Bank estimates based surrogate data.
(9) All data on U.S-Egypt relations are from the U.S. Government.

SUMMARY

Egypt continued to implement structural and stabilization reforms in 1992 and the first half of 1993, but at a slower pace than in 1991. Nevertheless, important gains were made. Spending discipline was maintained and new revenue measures (extension of the sales tax, selected fee increases and elimination of some tariff preferences), lowered the budget deficit to an expected 3.5% of GDP in FY 92/93. Monetary growth was also declined more slowly, partly due to large sales of Treasury bills to absorb the surge in domestic liquidity associated with Egypt's strong balance of payments surplus. Paris Club debt relief, strong Suez Canal receipts, tourism, and capital inflows (including remittances) were the major contributors to this surplus which allowed Egypt to build large reserves and maintain stability in the pound.

Real output and investment were slow to respond to the reforms which have brought financial stability. GDP growth in FY 91/92 was probably flat, with strength mostly limited to agriculture and tourism. Tourism, however, has declined sharply following the October 1992 earthquake and the rise in terrorist attacks, and GDP growth in FY 92/93 may have been negative. Egypt is expected to continue its reform effort, refining stabilization reforms now in place, but a revival of economic growth will depend on encouraging private sector activity. To promote private sector growth, a new capital market law was adopted, and Egypt's trade and investment regimes were further liberalized. While some progress has been made on public sector reform and privatization, the pace has been disappointing to many business leaders. Among informed observers, it is widely believed that the increase in investment, output and job creation which Egypt sorely needs requires accelerated progress on trade, investment and privatization reforms to create a business environment more congenial to private initiative.

CURRENT ECONOMIC POLICIES AND TRENDS

INTRODUCTION: The broad reforms implemented in 1991 represent a watershed for Egypt and attest to a firm commitment to developing a more market-oriented economy. This effort is a major departure from the economic policies of the last four decades, which stressed public-sector-led growth supported by protectionist, inward-looking policies to provide assured jobs for all graduates and broad subsidies for the population (irrespective of need), resulting in severe economic dislocation. It also is a change from the piecemeal reforms of the mid-1980's.

In the first year of the stabilization program, supported by the International Monetary Fund (IMF), the government freed interest and exchange rates, sharply reduced the budget deficit and disciplined monetary growth. With assistance from a World Bank structural adjustment loan (SAL), the government developed a process for public sector reform and privatization, and liberalized trade and investment policies. for this effort, Egypt was rewarded with exchange rate stability, a large balance of payments surplus and lower inflation. In the second year, reforms, especially structural measures, have proceeded at a more deliberate pace. This report reviews Egypt's current economic policies and performance, describes recent reform developments and assesses the need for future progress.

Fiscal Policy: budget deficit reduction is a key element in Egypt's stabilization program, and substantial progress has been made. From about 20 percent of GDP in FY 90/91 (year end June), Egypt cut its budget deficit to 6.4 percent in FY 91/92 and to an expected 3.5 percent in FY 92/93. Subsidies for key consumer items (notably edible oil, tea, sugar and bread) were markedly reduced, and government hiring and investment were constrained. A FY 92/93 wage increase of 20 percent for government workers was funded by new revenue measures. Higher interest rates, however, raised the cost of the government's domestic debt.

Egypt not only increased its revenues but also sought to create a more elastic, broader-based, better-administered tax system. A general sales tax (GST), at first applicable at the import and manufacturing level, was adopted in May 1991, and later extended to a growing list of services. The GST is to develop in stages into a full value added tax. Taxes on certain consumer goods (alcoholic and soft drinks, tobacco and petroleum products) not integrated in the GST were raised and progressively converted to ad valorem taxes. Customs duties were also increased, the number of preferential tariff rates reduced and some import-related fees raised. Higher energy prices, Suez Canal fees and stamp duties also added to FY 92/93 revenues.

Monetary policy: Tighter monetary policy contributed to Egypt's stabilization effort. A public Treasury bill auction, begun in 1991, is now the major tool for regulating money and credit and financing the deficit; it also anchors Egypt's decontrolled interest rate structure. Ceilings on bank lending, used initially to regulate credit, were ended for the private sector in October 1992; the cap on public sector loans is to be removed soon (stronger banking standards and denial of official guarantees should still restrict credit access).

Growth in the broad money supply fell by about one-half in FY 91/92 to 14.3 percent. With stable exchange rates and positive real interest rates for the first time in two decades, Egyptian pound savings climbed by nearly 60 percent while foreign currency deposits (offering much lower returns) fell by 16 percent. Loan demand was soft, but private sector borrowing, dampened by high interest rates and a slow economy, picked up somewhat in adjustment to the repeal of controls. Despite lower inflation and a flat economy, interest rates have fallen slowly. The average rate for three-month Treasury bills peaked at 19-plus percent in late 1991, then fell to 16.4 percent by year-end 1992 and to 15.0 percent in May 1993.

Financial reforms: To help banks meet the challenges of a freer economy, the government tightened prudential banking standards and improved the capital structure of the four public sector banks. A June 1992 banking law further strengthened banking standards, enhanced tools for dealing with problem banks, provided for deposit insurance, and was later amended to allow local branches of foreign banks to conduct Egyptian pound business, including exchange transactions. In 1992, Egypt adopted a revitalization of stock and bond markets. The law removed a seven percent interest cap on bonds and the tax on income from certain stocks and bonds, thus providing tax treatment similar to that for earnings on bank deposits and Treasury bills. Stock and bond holders, however, are subject to a two percent capital gains tax. While welcomed, the law has met with some criticism. The existing stock market was not privatized (competing private markets are allowed), the Capital Market Authority retains considerable discretionary power, and capital requirements can be high. Also high returns on low risk, short-term T-bill investments and slow privatization progress hamper capital market growth.

Exchange reform: In February 1991, Egypt removed most foreign exchange controls, allowing rates to reflect market forces. Soon thereafter, Egypt fully unified its two-tiers exchange system and opened the exchange market to non bank dealers.

Balance of Payments: Following exchange reform, the balance on Egypt's current account swung strongly into surplus -- from a $634 million deficit in FY 89/90 to a surplus of $1.4 billion in FY 90/91 and $3.8 billion in FY 91/92. This rebound owed much to generous Paris Club debt relief, including cancellation of $6.7 billion in U.S. military debt. In May 1991, Egypt's major creditor nations gave Egypt debt relief equal to an immediate 15 percent reduction in the net present value of its eligible official debt, with a further 15 percent reduction to be given after satisfactory completion of the May 1991 IMF program (accomplished in early 1993) and the adoption of a successor IMF program (now under negotiation). A final 20 percent reduction will be given if Egypt complies with a new IMF program through July 1, 1994.

Egypt's strong external payments surpluses were also due to strength in tourism, Suez Canal receipts and capital inflows (including remittances). Relatively high rates on pound savings and stability in Egyptian pound-US dollar exchange rates (at around LE 3.3 since April 1991) continue to promote capital inflows. While inflows have tapered from their strong peak, the Central Bank continues to absorb dollars to build reserves (now in excess of one year's imports) and prevent pound appreciation. Large Treasury bill sales (largely to banks) have helped to absorb some of the excess liquidity associated with dollar inflows but have inhibited lower interest rates. These sales have declined in recent months, however.

Progress in reducing Egypt's highly negative trade balance remains elusive. Slow economic growth resulted in a 12.1 percent fall in FY 91/92 imports to $10 billion, but imports still greatly exceed exports ($3.6 billion) which also declined, mostly due to lower oil prices. The absence of export growth reflects a strong pound but also the need for further reforms to encourage private sector activity.

Trade reform: Egypt has liberalized its trade regime substantially, but domestic industry remains heavily protected by non-tariff import barriers, tariff exemptions for the public sector, and high tariff rates. The government reduced the number of goods banned from importation from 105 to 78, thus reducing coverage of the ban to 10 percent of manufacturing and agricultural output. In 1991, the government narrowed the tariff band to a five percent minimum and 100 percent maximum rate. Further reform came in February 1993 when the maximum rate, e.g., poultry, alcohol, tobacco, and passenger cars. In the next few years, the government is expected to further compress the tariff band and decrease the number of exemptions.

Public Sector Reform and Privatization: In 1991, Law 203 was enacted to govern the restructuring of 314 public-sector enterprises (about 70 percent of Egypt's industrial sector). Law 203 removed government ministries' control over public sector companies, restructuring them as affiliates under 27 holding companies. In principle, the affiliates are to operate as private firms without special advantages. Law 203 also permits privatization, allowing the sale or lease of company assets, unlimited sale of government owned shares, or liquidation. Initially, affiliates were organized along sectoral lines. In February 1993, the government consolidated affiliate companies, redistributing cement, textile, and fertilizer companies.

As of May 1993, government shares in a construction company and bottling plant were sold and two retail trade outlets were leased. In February 1993, the government offered for sale 16 public-sector assets, primarily in tourism. Deadlines for bids on most of these assets have not been set, in part due to a Law 203 requirement for a vote of the holding company's still-to-be-elected general assembly for sale of an asset.

Investment Deregulation: In early 1991, Egypt replaced its investment licensing regime with a system for automatic approval of investments in sectors not on a "Negative List", which includes energy-intensive projects, assembly industries, military production, tobacco products, and investments in the Sinai. For industries such as motor vehicles and pharmaceuticals local content rules must be met. Certain product lines were deleted from the Negative List in 1992, but sectoral prohibitions remain. investors seeking incentives (primarily as holiday) under Investment Law 330 still must obtain project approval from the General Authority for Investment and Free Zones (GAFI). This can significantly delay project startup because the board usually meets only once or twice per year. U.S. officials continue to stress the need for greater protection on intellectual property rights in Egypt. To attract foreign investment, the government must improve legal protection of patents, copyrights, and trademarks.

Pricing Deregulation: The government has actively deregulated pricing in recent years, freeing all industrial prices except for pharmaceuticals and those of ten products which are set on a cost-plus basis. For social reasons, the government has not increased pharmaceutical prices since mid-1991, although prices of new drugs are set by a cost-plus formula. In agriculture, fertilizer prices are near border prices, and crop prices (except for cotton and sugar) are near world prices. Domestic cotton prices, now at 66 percent of world levels, may be freed in mid-1993, with some private trading to be allowed. Finally, petroleum prices have risen from 36 percent of international prices in May 1989 to 80 percent by end-1992, while electricity prices have risen from 24 to 69 percent of long run marginal cost (LRMC) in the same period.

The Social Fund as Safety Net: Early in 1991, the government created the Social Fund as a quick-acting mechanism to cushion vulnerable social groups against the pain of economic reform. Planned programs include short-term job generation and labor mobility to support privatization in the public sector. However, the Fund has been slow to act: it has attracted $613 million in donor pledges, which dwarf the $35 million spent as of May 1993. A recent agreement between donors and the government to grant the Fund greater autonomy should increase the disbursement rate during 1993.

RECENT ECONOMIC PERFORMANCE Real GDP growth in FY 91/92 was probably flat to slightly positive, after a 2.3 percent rise in FY 90/91. This outcome is better than expected given tight monetary and fiscal policies and public sector reforms. Strength in services, particularly in tourism in the first half of FY 91/92, and in agriculture helped offset weakness in other sectors. Tourism, however, has declined sharply following the October 1992 earthquake and the rise in terrorist attacks. While manufacturing output may have grown in some lines, a large and steady stream of sale advertisements suggest much output was added to inventories. Real GDP growth in FY 92/93 may have been negative. No reliable data exist on Egypt's large informal sector, which may account for 30 to 50 percent of economic activity and serves as the employer of last resort for poor Egyptians. However, government hiring constraints and economic weakness would have increased the number of job seekers in the informal sector, which is not immune to pressures facing the formal economy.

Inflation: Reflecting the governments new monetary and fiscal discipline, consumer price inflation subsided from 26 percent in 1991 to about 10 percent in 1992 (measured June over June). Much of the rise in prices resulted from reform-related increases in administered prices. These increases, including shrinking of the ration card subsidy, have hit the poor particularly hard: estimates of the inflation they faced during 1992 are at 15 percent.

Employment: since the mid-1980s slowdown, job creation has lagged expansion of the workforce, estimated at 500 thousand per year. While official data show open unemployment has risen from six percent in early 1989 to 10 percent by end-1992, observers estimate that it exceeds 17 percent of Egypt's workforce of 18 million, affecting primarily.....?????

Industry: Official data show the industrial sector contributed about 18 percent of GDP in FY 91/92, and grew by 4.9 percent in real terms. Anecdotal information, however, suggests overall industrial production, especially in the public sector, declined in the last two years. Data for key products show that cotton yarn and ready made garment output rose 6.2 and 13 percent, respectively, in FY 91/92, but production of automobiles fell by 42 percent and buses by 23 percent. According to official figures, investment in industry and mining represents 22.1 percent of total investment at $1.67 billion in FY 91/92, compared to $1.63 billion in FY 90/91. The private sector's share in this sector, however, declined from 24.2 percent to 23.6 percent.

Services: Egypt's services sector is dominated by tourism and the Suez Canal. Tourism was set for a record year in 1992 until October, when the Cairo earthquake and terrorist attacks scared off visitors. Even so, total direct tourism earnings in 1992 are estimated at $2.6 billion. Earnings for 1993 should be lower, as tourist nights fell by one-third in the first quarter, a decline which has continued. Despite this slump, tourism remains the most active area of private investment. The Suez Canal earned $1.9 billion in 1992, up 2.1 percent from 1991. Expected revenues in 1993 are just over $2.0 billion. Canal revenues shot up 40 percent between 1987 and 1990, but future growth promises to be slower, especially since the government recently scaled back a proposed enlargement of the Canal.

Energy: The petroleum and natural gas sector accounted for about 10 percent of Egypt's GDP in FY 91/92, while petroleum products made up about 45 percent of total exports. Petroleum output dropped slightly in FY 91/92 to 43.8 million tons at 870,000 barrels per day. The drop in world oil prices after the Gulf War caused Egypt's crude oil exports to fall to $1.17 billion in FY 91/92 versus $1.46 billion in FY 90/91. To limit its oil dependency, Egypt is encouraging natural gas production, which reached 7.2 million metric tons equivalent in FY 91/92. Since 1991, Egypt has tried to improve the investment climate for foreign oil and gas exploration and production companies. The 1991 adoption of a market-based petroleum export pricing formula was a welcome change. Twelve petroleum exploration agreements were signed in 1992.

Egypt electrical capacity has grown substantially over the last decade, reaching 11,910 MW. Hydroelectric power represents about 20 percent of total capacity. In FY 91/92 electrical generation grew by roughly five percent to 45.5 billion kWh. Consumption is about 38 billion kWh, 45 percent of which is used by industry. Egypt has signed an agreement with Middle Eastern countries to create a unified electrical grid. Egypt has made no decision on developing nuclear power for energy, but plans to purchase a new 22MW research reactor from Argentina to replace the Soviet reactor now in use.

Environmental Issues: In May 1992, the Government announced a plan to implement and enforce new environmental standards. The plan, prepared with international, including U.S., support should cost $2.63 billion over 10 years. A draft environmental protection law to provide authority for enforcing standards and mandate environmental impact studies prior to approval of industrial and tourist projects is scheduled to be enacted by Summer 1993. The law, opposed by the petroleum sector which fears new Red Sea projects may be impeded, enjoys strong support in the People's Assembly. The World Bank, Japan and Canada have begun new environmental projects, but most donors await the new law.

NEAR TERM PROJECTS

Stabilization reform: Preserving and improving on past stabilization gains will require a continued effort, to which the government appears committed. However, heightened social concerns, increased extremist activity, expected changes in the economic cabinet, balance of payments surpluses, and the fact that many key stabilization reforms are largely in place -- all suggest that stabilization reform will proceed at a more deliberate pace than before. Further action to lower the deficit will be much less dramatic than in the last two years. Government spending will remain under downward pressure as indicated by the announced 10 percent increase in FY 93/94 government salaries. Subsidies will continue to be whittled away but with great care. The subsidy on bread is likely to remain. New revenue measures are also expected. The government has announced that the global income tax (designed to make the system fairer and reduce incentives for evasion) is expected to be in place in time to apply to 1993 income. However, legislative action at this point seems unlikely before the Fall. Further extension of the sales tax is also anticipated. On the monetary side, the huge amount of liquidity in the system will remain a concern. Refinements in regulations to strengthen the financial sector and increase competition should continue.

Structural reform: The next phase of Egypt's structural reform program is expected to stress private sector development. Elimination of unnecessary regulations and practices which impede investments will be vital. Business leaders, earlier optimistic about reform. are now concerned that government commitment has wavered, primarily due to slow progress on public-sector reform. To restore investor confidence, tangible privatization results are needed. Other measures needed include: elimination of the "Negative List" of investments and GAFI approval for investment projects; reductions in the maximum tariff rate and elimination of tariff exemptions; elimination of the import ban list; consistent application of quality control standards; unification of the laws governing investment and commercial activity; and a labor law that allows employers to layoff or fire workers.

The government has announced plans to implement legislation or issue decrees that will resolve many of the above investment and trade issues within the next year. Progress on privatization, however, will continue to be slow. Liquidations will be few. Sales to foreigners will be closely reviewed, and perhaps only Arab investors or foreign companies with Egyptian partners will be allowed to purchase major concerns. The government will protect workers and domestic industries (public and private) for as long as possible, because of its fears of further social disaffection and political unrest.

Economic Prospects: Revival of economic growth in the coming year will depend on Egypt's ability to achieve a turnaround in tourism and stimulate further private sector activity. Foreign exchange inflows should remain a bright spot, despite the expected decline in tourism receipts. Paris Club debt relief will help ensure balance of payments viability. Capital inflows should remain healthy, albeit at a much reduced level, due to completion of portfolio adjustments, lower interest rates and a slowing of the unsustainable surge in remittances which followed interest and exchange reforms. A pickup in imports which may accompany trade reform would also help moderate the payments surplus. Inflation should continue moderate, at about the FY 92/93 level, assuming continued monetary and fiscal discipline. While some further reduction of subsidies and public-sector reforms (which increase the pace at which cost increases are passed on to consumers) will result in price rises, weak demand, excess capacity, and a relatively stable dollar/pound exchange rate should inhibit development of an inflationary spiral. As balance of payments surpluses and the associated build-up in excess liquidity subside, Treasury bill offerings should decline (a process already begun). Liquidity in the banking system will make loans more available and cheaper, but it is unclear to what extent increased availability of loans will affect the wait-and-see attitudes of many business leaders. A significant pickup in private investment and economic growth will probably depend more on progress on structural reforms and the development of a more congenial business environment. In the meantime, the government faces the challenge of promoting real growth and job creation without resorting to self-defeating inflationary policies.

IMPLICATIONS FOR U.S. BUSINESS

Egypt's appetite for U.S. exports continues to grow: up to 20 percent in 1992, with a similar increase in early 1993. over half of the $3.2 billion in U.S. exports to Egypt last year were strictly commercial, i.e. sold on a competitive pricing basis and not financed by U.S. government aid programs. This means Egypt's nonaid purchases from U.S. firms exceed U.S. exports to markets such as the Philippines, Denmark and India. Egypt is the United States 26th largest market in the world, and the United States is Egypt's largest supplier, providing some 26 percent of all imports. Egyptian exports to the U.S. are under $500 million annually, largely petroleum, with a growing share of garments.

Egypt is a specialized market where price, not quality, counts for most things. Government tender rules require that low-bids win, even if quality is inferior. However, aid-funded projects, including those of USAID and other donors, demand the best quality. Affluent Egyptians buy Mercedes-quality goods for personal consumption, while at the same time specifying used factory equipment to expand their assembly lines. U.S. firms that succeed here listen carefully to their customer's needs and respond to what is requested.

Over 200 U.S. firms have offices (including regional offices) and staff in Egypt, and another 1400 U.S. firms are represented by Egyptian agents and distributors, some 50 of which are joint ventures. All to joint ventures except the troubled pharmaceutical industry are profitable; firms are expanding product lines and many export. Egyptian entrepreneurs, of whom there are many, report burgeoning profit opportunities. They want U.S. technical and managerial help, and the recognition of name brand products and services via partnerships, licenses, or franchises.

The American Chamber of Commerce in Egypt, with nearly 600 members, is the largest U.S. business interest group in the Middle East. U.S. investment of $1.5 billion has been relatively static for several years -- reflecting caution about the government's economic reform effort. However, dozens of interested investors wait in the wings in hopes of favorable developments in government policy. The 1992 U.S-Egypt bilateral Investment Treaty (BIT) provides for fair, equitable and indiscriminatory treatment for investors of both nations, and sets forth: international standards for expropriation and compensation; free financial transfers; and procedures for the settlement of investment disputes (including arbitration). These safeguards, while similar to those in Investment Law 230, provide further protection to U.S. investors.

Egyptian government policy changes which offer export opportunities include: increased emphasis on quality control of imports and exports (require laboratories, lab and scientific instrumentation, training services); increased vigilance by customs and tax authorities to garner every penny due to a government seeking to enhance revenue and limit tax evasion (computers, software programs, product/shipping container surveillance equipment); a new focus on management as government bureaucracies reform themselves or are privatized (office equipment, including communications (fax), photocopying, and typing/computing; business/office systems; and management training services); building products and systems to withstand earthquakes, i.e. much higher quality products than has been the norm for decades; and equipment to help the security services cope with violence/terrorist threats (interactive training labs/programs, e.g. shooting ranges for police trainees; photo and other identification equipment; bomb disposal and checking equipment; including portable X-ray and photo interpreting equipment; bulletproof garments).

Other areas of growth due to purchases by government and investments by private entrepreneurs include:

- Medical equipment: the demand for kidney dialysis equipment alone amounts to $10 million per year.

- Packing and packaging machinery: diversification of product lines, and the increased sophistication of Egyptian consumers.

- Food processing machinery: A market of 60 million consumers, of which an estimated 10 percent is affluent by Western standards, offers growing opportunities in all food lines.

- Fast food franchising: the first U.S. donut house opened this year, joining Pizza Hut, KFC, Wimpy's and a few local fast/convenience food chains. Many Egyptian entrepreneurs have approached Embassy Cairo with requests for restaurant/food franchises.

- Irrigation equipment: drip is "in"; full circle impact sprinklers and pivot systems also see opportunities of growing 13 percent a year because of the increasing reliance on new desert lands to replace declining yields in the Delta.

- Desalination equipment: particularly RO units for hotels at tourist resorts on the Red Sea, Sinai and Mediterranean.

- Pollution control equipment: for air, water and solid waste.

- Laboratory equipment: $50 million worth of government funds are planned for tumor, tissue culture and genetic engineering laboratories in universities and research centers.

The U.S. Foreign Commercial Service (USFCS) maintains an active market research program for U.S. business, and some 90 articles on business in Egypt are available through the National Trade Data Bank's CD-ROM. The "Directory of US Business in Egypt", and the guide, "All About Business in Egypt", are available from the Embassy or the Department of Commerce's National Technical Information Service (NTIS). "Gold Key" special appointment-making service is available to U.S. business persons for a fee.

Trade shows, including the annual Cairo International Fair (planned for April 1994), and other promotions of U.S. business by USFCS staff in Egypt offer advertising and sales opportunities or U.S. firms.

APPENDIX I
ORGANIZATIONAL CHANGE PROCESS

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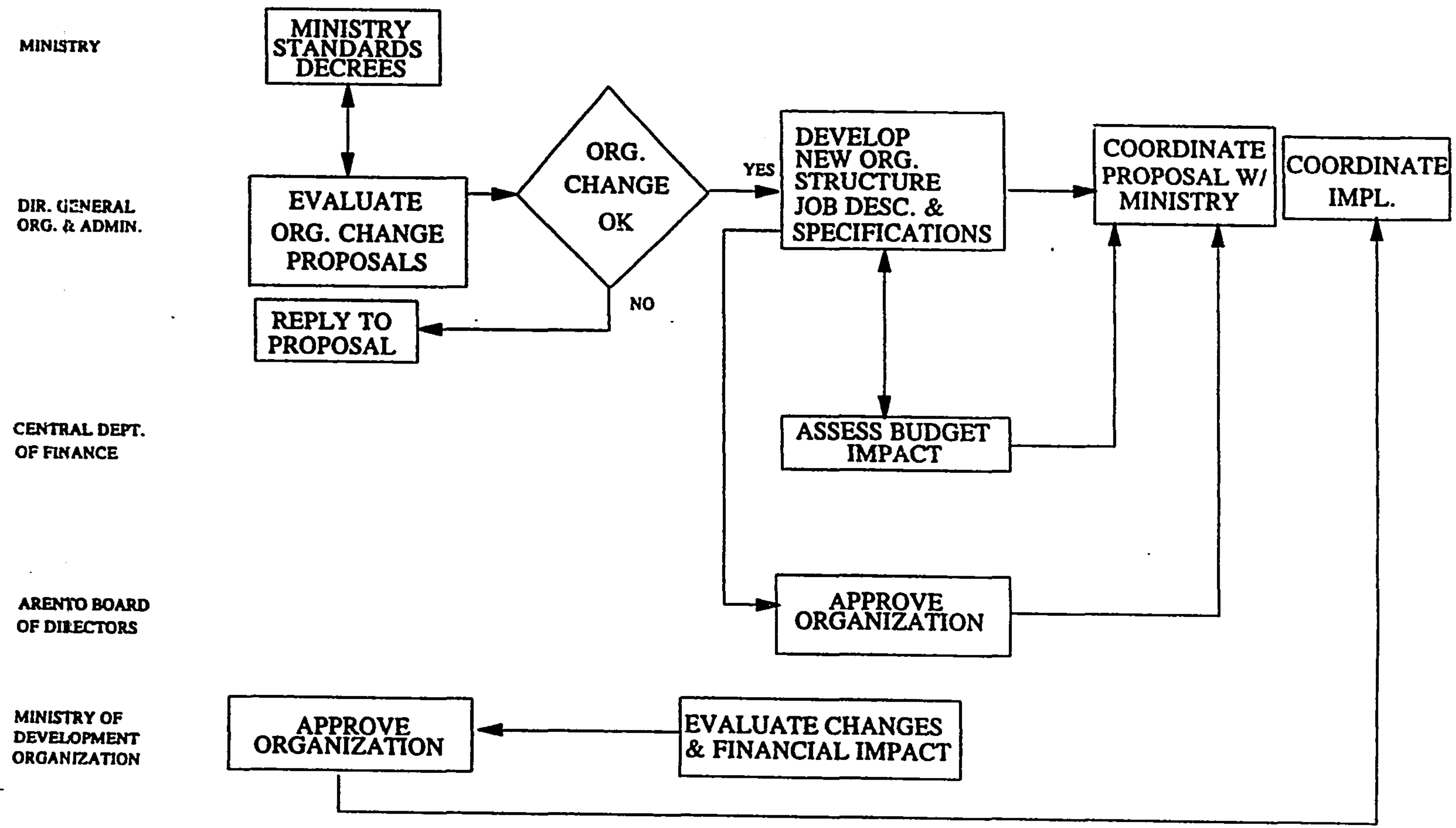
ORGANIZATIONAL CHANGE PROCESS



APPENDIX J
ARENTO JOB DESCRIPTIONS

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ARENTO
JOB DESCRIPTIONS

SECTOR 1 - GENERAL DESCRIPTION

The Sector for Telegraph and Telex (S.1) has responsibility for initial design and detailed engineering for national telegraph and telex, installation of equipment and daily operations. Maintenance of telegraph equipment in the field is the responsibility of (S.1), yet maintenance of overhead wires and telex and switching equipment is within the scope of responsibility of the Zones. Engineering and design, installation, maintenance and operations of International Telegraph and operations of International Telex are the responsibility of the sector of International Operations (S.11)

The Sector of Telegraph and Telex (S.1) operated semi-automatic equipment in 1970 when the domestic network (320 lines in Cairo and 160 lines in Alexandria) was first joined to an international network (Austria, Italy, France, etc.) via 12 circuits. By 19976, the equipment was fully automated, the international network expanded to contact Japan directly, and the national network included 800 lines for Cairo and 400 lines for Alexandria. This sector reportedly earns 65% of ARENTO's revenues. The future equipment required by (S.1) will be largely electromagnetic with some advanced electronic switching to service upwards of 4100 subscribers.

Telegraph and Telex Sector (S1): Functional Description

It concerns:

- Supervision of studying and planning different technical programs, telegraph projects for ARENTO and other outside bodies; coordination among the units adhered to in the sector, and putting down the technical classifications of requisitions and equipment.

- Supervision of maintaining equipment for the ARENTO, governmental administrations, organizations and establishments. It takes the job of studying telegraph progress through making special statistics, and developing the general telegraph network attached to telegraph offices.

- Attending different (inside and outside) committees and local international technical conferences.

- Supervision of putting down technical programs, controlling technical faults, contacting the Zones and giving the technical instructions to avoid faults occurrences, and expert efforts to raise the standard of work and staff.

- Inspection of controls and administrations, approving staff's secret reports, and different sheets of requisitions, wages travel allowance, and transport expenses.

SECTOR 1
DIVISION 3 FUNCTIONAL DESCRIPTION

Executing Project of Telex Exchanges

Execution of Projects for Telex Exchanges

- Electric Power and Ventilation Equipment of Telex Exchanges (O+M) and Supervision of Power Stations
- "Step by Step" and International Crossbars Exchange Equipment (O+M)
- Electronic Telex Exchange Equipment (O+M)
- Equipment of Local Crossbar Telex Exchanges (O+M)

Computer Center of Telex Exchanges

- Electronic Computer Center for Telex Exchanges (O+M)
- Registering Equipment and Accounting for Telex Exchanges
- Handling Subscriber Complaints Regarding Bills
- Storage of magnetic Tapes and Computer Programs

Technical Studies of Exchange Equipment

- Statistics of Crossbar Telex Exchanges and Level of Service
- Statistics of Electronic Exchanges
- Preparing for International Conferences
- Review of Waiting List of Applicants
- Prepares Technical Specifications for New Exchanges
- Library of Technical Material and Software (magnetic Tapes)

SECTION 2 - GENERAL DESCRIPTION

The Sector of Local Networks (S.2) has the responsibility for initial engineering and design and installation of the local network for telephone exchanges, including submarine cable used in local rivers, etc. The Sector of Local Networks (S2) may become involved in maintenance of installed cables, etc. But, generally for no longer than the one year, provisional testing period. Operations and maintenance are the responsibility of the Zones once the local network has been fully installed.

Currently the level of project work in the four geographical sectors is as follows: Cairo (55%), Alexandria (18%), Upper Egypt and Lower Egypt (19%) and Canal (8%). The main work of (S.2) is the planning for local networks, the issuing of pre-qualification documents and tenders for local cable, the on-going supervision of "turn-key" projects and the testing of lines in order to switch subscribers to newly installed telephone lines.

Local Networks Sector (S.2): Functional Description

It concerns:

- Supervision of executing local networks adhered to its divisions.

  They are as follows:

  Cairo Projects
  Alexandria Projects
  Lower Egypt Projects
  Upper Egypt Projects

- Planning and developing the aforesaid networks to couple with what will follow of traffic requirements.

- Issuing regular reports to be submitted to the Vice-Chairman, Board of Directors, for planning and project execution.

- Participation in preparing the financial balance concerning its sector's activity.

SECTOR 3 - GENERAL DESCRIPTION

The Sector of Transmission (S.3) is responsible for initial design, engineering, installation and testing of transmission equipment, trunk cable (long lines), submarine cables (international), radio links between rural exchanges and national microwave systems. The Sector has direct control over the operations and maintenance of coaxial cable systems and equipment in the geographical zones throughout Egypt. The Transmission Sector also operates and maintains the short-haul microwave links within Cairo, as these are still considered to be in a project stage. In addition, this Sector is responsible for designing and installing the transmission power equipment required by the projects in other planning projects.

Transmission and Radio Sector (S.3): Functional Description

It concerns:

- Supervision of executing land stations which are contacted locally and arabically with different satellites.
- Supervision of executing projects and contracts locally through microwave or scattered waves.
- Supervision of executing overhead lines projects necessary for linking terminal exchanges with group centers and carrier equipment.
- Supervision of executing rotary cable expansion projects.

Transmission and Maintenance of Main lines (S.3):

It concerns:

- General supervision of planning, execution, operating and maintaining transmission projects.
- Suggesting programs for maintenance, project renewals, expansion of construction - submitting necessary proposals and recommendations all over the technical positions.
- Sharing international conferences and seminars concerning developing transmission systems to get used of the technical works in A.R.E.
- Supervising meeting held at projects and working to remove difficulties facing action from financial, administrative and technical sides.
- Supervising tests run by the new transmission projects and giving reports about the extent of efficiency, and making sure of putting them in service on the technical level required.

SECTOR 4 - GENERAL DESCRIPTION

The Sector of Switching and Exchange (S.4) is responsible for the planning of local (including step by step)switching and exchange equipment of all geographical sectors. The Sector is also responsible for the national and International exchange equipment including local purchasing, transportation and storage.

Exchange and Switching Equipment Projects Sector (S4): Functional Description

It concerns:

- Putting down executive plans for different projects
- Estimating costs and financial funds necessary for executing projects
- Preparing needs necessary, from imported and local equipment
- Following up execution of projects according to received plan and to technical circumstances.

SECTOR 5 - GENERAL DESCRIPTION

The Sector of Project Planning (S5) is a small, technical assistance office for the Vice-Chairman for Planning and Execution of Projects. This sector coordinates project design and planning across the Sectors 1-4 (which fall under the Vice Chairman's direct supervision) and reviews related expenditures according to the approved guidelines in the annual General Budget. In addition, the Sector (S5) prepares a monthly status report on the progress of projects under implementation.

The three main divisions plan and prepare technical specifications in the areas of transmission and wireless projects, exchange projects and traffic network design.

Projects Planning Sector (S5): Functional Description

It concerns:

- Evaluating foreign and local fund for constructing new exchanges and expansion in old ones.
- Supervision of checking and collecting information, data and statistics for the purpose of putting down plans and programs of exchange projects - Supervision of issuing circular books and instructions regarding execution.
- Supervision of preparing reports and information necessary for the projects exchanges.

SECTOR 6 - GENERAL DESCRIPTION

The Sector of Training (S6) is responsible for design, preparation and execution of all orientation, entry-level and in-service training programs for ARENTO personnel. Some two hundred and fifty trainees (full and part-time) work in two main instructional divisions - Laboratories, Buildings and Stores, Programs and Training Institute - which are assisted by a third administrative division.

The Training Sector is composed of the Telecommunications Training and Research Institute (TTRI) in Medinet Nasr (Cairo) and six regional training centers located in major cities of the other geographical sectors. The TTRI has its own Board of Directors to guide its operations and develop training policies, including awarding teaching bonuses to trainers. The principal training location is in Cairo where a complex of four buildings house the Industrial Technical Institute for telephones, the Traffic and Administrative Center and the Skilled Workers Center.

Throughout the academic year, these training centers conduct diploma and certification courses foe engineers, technicians, traffic operators and checkers, skilled craftsmen, administration, supervisors and clerk typists. This Sector has the responsibility for the maintenance of its own instructional laboratories, audio-visual studios, workshops and buildings.

Training sector (S6): Functional Description

Emerging form the eagerness of the government to provide training and upgrade the level of performance in the various fields of work, it was imperative for ARENTO to care about training, activate and develop it to keep pace with the international technological developments.

Duties and Responsibilities

1. To devise and implement a comprehensive training system for ARENTO personnel, the newly recruited and in-service personnel according to their job levels and in compliance with the ARENTO Chairman of the Board (who is also the Chairman of the Board of the Training Institute) directives in establishing ordinary, in-service and developmental programs.

2. To cooperate in preparing technically students of the Ministry of Higher Education to obtain the Diploma of the Technical Industrial Institutes which qualifies them to work in the various fields of telecommunications in coordination with the Ministry of Higher Education.

3. To train personnel from other governmental sectors such as the armed forces and wireless policemen.

4. To train the fellows from other countries and especially from the Arab and African countries.

SECTOR 7 - GENERAL DESCRIPTION

The Sector of Stores and Purchasing (S7) is responsible for store-keeping (warehousing), inventory management and purchasing major capital items as well as recurring items for all the projects and operating units of ARENTO (excluding International Operations (S11)). The Sector (S7) functions on two levels:

1. there are central stores and purchasing offices, headed by USS Riad Awad Nairouz, which administratively undertake all the major purchasing, receive the invoiced articles in the port of Alexandria, arrange for customs clearance, and transport these articles to five main stores in Cairo for warehousing and eventual distribution to the concerned operating sectors. These central offices control purchasing and adjudication for articles valued at over LE 200.

2. There are approximately twenty regions in the sic geographical sectors of ARENTO which operate a system of sub stores and local stores. These sub stores, and local offices of Stores and Purchasing, report directly to their zone managers who in turn report to the appropriate geographical sector Undersecretary of State. Most of the inventory for these local stores is requisitioned from the main stores in Cairo. Some direct purchasing can be initiated by these local stores and purchasing offices for domestically available items not exceeding LE 200 in value.

Purchasing committees meet periodically at both organizational levels to approve purchasing requests and to review the selection of suppliers. The Central Stores and Purchasing Sector (S7) offices are assisted by three committees: branch purchasing (see notebook section entitled Committees), intermediate purchasing and high purchasing.

The central Stores division is responsible for accounting and inventory control, inspection of stores, sale of obsolete materials and supervision of the two stores in Alexandria (Mahmoudaiya and Minatarasaiwi) and the five stores in Cairo (einshams, Sharabiah, Maadi, Old Sharabiah and Sebtiah). The central Purchasing Division is responsible for contracts and tenders and associated adjudication relating to internal and external purchasing, telephone sets, vehicles and tools, stationary and miscellaneous supplies. These two divisions are supported by general departments for personnel and financial affairs.

Stores and Purchasing Sector (S7): Functional Description

It concerns:

- Putting down detailed work plans and programs for realization of set policy with regard to storing and purchasing works.

- Guidance in taking storing procedures of requisitions needed, which are not exposed to an investigation system.

- Supervision of classifying requisitions, storing and distributing them to the Zones.

- Supervision of delivery of requisitions which are not subject to storing, and inform the different technical departments of the date of arrivals and distribute them at sites and places of installation.

- Supervision of supplying the Organization with the necessary stationary and prints.

- Supervision of selling second hand requisites which have been decided to be sold.

- Participating in different committees for discussing subjects connected to work.

SECTOR 8 - GENERAL DESCRIPTION

The Sector of Administration (S8) is responsible for providing administrative support to ARENTO operating units in the areas of personnel affairs and public relations. This Sector supervises the implementation of personnel policies and regulations and records on individual employee filed all relevant information concerning appointments, allowances, salaries, promotions, pensions due. health and personal income status. For employees below the high administrative grades, performance evaluation reports are written annually and become part of their personal records. The Administrative Sector (S8) acts as a liaison between ARENTO and the Central Organ for Administration and Organization in matters concerning personnel and public relations to assure conformance with general governmental policies.

The Sector (S8) also is responsible for the social care of ARENTO staff, including health, culture, sports activities and general appearance of workers.

Administration Affairs - Sector 8: Functional Description

It concerns:

- Supervision of all ARENTO's administrative affairs - controlling laws, rules and reports of personnel.
- Following up and approving sheets, and in particular, dues, pensions and health security at fixed dates.
- Executing all systems concerning appointments, allowances, promotions, statements, loans, secret reports and bulletins set by headquarters.
- Executing directions and instructions of the National Central Organ for Organization Administration and Legislation; and concerned bodies for Public Service Affairs, following up reply to the Central Organ for accounts.
- Preparing and executing projects of staff balance.
- Executing all works relevant to Public Affairs, Public Relations, social care of Staff's health, culture and sports.

SECTOR 9 - GENERAL DESCRIPTION

The Commercial and Economic Sector (S9) is responsible for the commercial and financial functions of ARENTO including subscriber relations, accounting for and billing to subscriber accounts, preparing financial plans for inclusion in the annual General Budget, accounting for ARENTO operations and preparing financial reports. The Sector of Commercial and Economic Affairs operates on two levels:

1. A central office, located in Cairo under the direction of USS M. Adel Sayed, which collects financial and commercial information monthly from the Zones throughout Egypt and prepares appropriate reports and financial statements as required by governmental ministries. This central office has five divisions - subscriber contracts, subscriber accountancy, finance, depreciation and consumption and inspection and economic researches. In addition to central accounting and reporting, these offices have the responsibility for inspection and auditing the accounts kept by the local commercial and financial offices.

2. There are local offices in each zone for commercial affairs and for finance which are under the administrative control of the zone manager but technically report to the central offices in the Sector (S9). The local zone office for Commercial and Contracting handles the assignment of free telephone lines to subscribers, taking applications and approving subscriber contracts and billing to subscribers according t their monthly usage of telephones, telegraph, etc. The local Zone office for Finance maintains accounting records of financial transactions (revenues and disbursements), budget allocations to zones and valuations of equipment. These local Finance offices prepare monthly financial statements (Report No. 75) for submission to the central offices of the Sector (S9).

   In the Local Zone Financial Offices, many of the staff are technically employed by the Ministry of Finance but administratively report to their respective Zone Manager. Local Finance offices also make cash distribution to ARENTO employees according to salary documents prepared by the local Personnel office.

SECTOR 10 - GENERAL DESCRIPTION

The Sector of Planning and Follow-up (S10) is a technical assistance office reporting directly to the Chairman and is responsible for collecting and reporting information from the operating sector of ARENTO regarding its Five Year Plan and rolling financial budget. In addition to preparing the annual General Budget for approval by the Chairman and submission to the Ministry of Planning, the Sector's Planning Division follows-up on the progress of project planning, records the cost to complete projects and other financial decisions taken by High Committees. The Planning Division also assists in planning and allocating foreign currency and spare parts. Statistics are recorded in the Follow-Up Division for periodic reports submitted to the Ministry of Communications and to other ministries. Also, in the Follow-up Division is a complaints office which records and reports on public and governmental complaints about telephone service. The Sector is finally responsible for approval of the assignment of all personnel to operating Sectors throughout Egypt as well as the distribution of their annual bonus and over-time allowance.

Planning and Follow-up Sector (S10): Functional Description

It concerns:

- Supplying the National Ministry of Planning with the different costs and required information, and analysis which concerns ARENTO programs, projects and works.
- Collecting and analyzing statistical information needed by headquarters and Zones administration. It helps in drawing up the different financial policy.
- Participating in drawing up ARENTO's financial policy.
- Distribution of projects' funds which are executed by the Zones.
- Suggesting all funds of the different items of the budget in order to overcome bottlenecks and obstacles.
- Preparing draft project of the plan, introducing amendments and submitting reports regarding executing it.
- Preparing draft project of the monetary balance with its different segments.
- Pursuing the possibility of opening foreign credits for importing invested commodities - making contact with foreign bodies concerned with speedy development, and negotiating with foreign bodies for facilities offered by them.

SECTOR 11 - GENERAL DESCRIPTION

The Sector of International Operations, Radio and International Projects (S11) is responsible for the initial design, engineering, installation, maintenance and daily operations of international traffic including telegraph, international microwave, and satellite communications. In addition, the Sector (S11) controls the work of the operators of the International Toll Center, the operations of international submarine cable, and the operations of international telex.

All types of radio stations are planned and constructed as projects by this sector. When these radio stations become fully operational, they continue to be supervised and maintained by International Operations (s11) according to its general policy on radio communications for stations and branches.

The Sector (S11) has primary responsibility for assuring that ARENTO's international traffic operations meet accepted international standards.

International Operation, Radio Communications and International Projects Sector (S11): Functional Description

It concerns:

- Putting down plans, programs, means, designs and constructing all types of radio stations. Besides operating and maintaining them.

- Putting down plans and programs and managing the international traffic administration for telephone, telegraph and wireless. Besides preparing international accounts operations with foreign administrations.

- Participating in drawing the general policy of International Radio Communication Sector. Putting down plans and programs which realize, with the outside world the goals of this general policy drawn up in the fields of International Radio Communications.

- Guidance in preparing projects of general and monetary budget, and final accounts of the Sector. Controlling execution of laws and rules.

- Guidance in taking the necessary means of purchasing, supply and storing works according to the set of rules and instructions.

- Checking and approving total conclusions of the activities and efforts exerted by radio stations, administrations and different branches. Besides supplying the aforesaid sector with the necessary directions which help in developing and improving the standard of work.

SECTOR 12 - GENERAL DESCRIPTION

The Sector of Inspection of Engineering and Maintenance (S12) is responsible for checking the ongoing work in the Zones throughout Egypt and reporting to the Chairman on progress, apparent obstacles and standards of work completed. The Sector (S12) is involved in technical inspection of engineering and maintenance work as well as general inspection of the operations of manual and automatic exchanges, telephone and telegraph offices and trunk boards.

Recently the Sector (S12) has been divided so that Inspection of Traffic (S13) is now a separate functional sector under Eng. Fouad Ezz El Din. Until now the divided lines of responsibility are not yet clear, however, his principal concern is the inspection of traffic offices telephone and telegraph - to report on their level of service.

Inspection of Engineering and Maintenance Sectors 12 and 13 - Functional Description

It concerns:

- Inspection and maintenance of Zones - checking works of inspection, maintenance and discussing obstacles facing Zones and trying to remove them.
- Suggesting proposals for developing and improving telephone and telegraph services.
- Approving reports of inspection and maintenance (engineering and traffic) and issuing necessary directions.
- Supervision of planning and putting down programs of technical inspection and maintenance - following up for execution.
- Supervision testing and reporting efficiency of new automatic exchanges - and subscribers transference from one automatic exchange to another.
- Inspection of executing instructions concerning protective maintenance of different equipment - following up Zones for execution.
- Supervising control of operation of the automatic and manual trunk, and telegraph and telephone offices.
- Studying rules for operating manual exchanges, telephone and telegraph offices, trunk boards and services concerning automatic exchanges.
- Reporting number of staff necessary for traffic at exchanges and public telephone and telegraph offices.

Cable Communications Zones - Sectors 14-20

It concerns:

- Supervision of executing the general policy put down by the chief administrations all over the Zones.
- Holding regular meetings with the directors of Zones to discuss problems faced and put down solutions.
- Submitting recommendations and proposals necessary for developing work and raising the standard of telephone and telegraph services.
- Planning work programs and controlling execution.
- Unscheduled inspection to Zones to ensure good handling of work.
- Inspecting maintenance operators to ensure efficiency of work.
- Supervision of communicating instructions issued by headquarters to all Zones - pursuing execution of all ARENTO construction (buildings) works of engineering, personnel affairs, commercial relations and financial affairs.
- Making the necessary contracts with governmental organs and public sector to implement ARENTO's works.

Upper Egypt - South Sector (cont.) -Sector 15

Legal Affairs

Investigations of complaints from subscribers
law suits
liaison with courts system
complaints from employees
linked to Legal Affairs (Ex 10)reporting to Chairman

Traffic Inspection

Inspection of operations of telegraph and telephone public offices
supervises operators in the same office (40-80 offices).

SECTOR 21 - GENERAL DESCRIPTION

The Sector of Methods and Practices (S21) has the responsibility for the preparation, printing and distribution of standard engineering and operating practices and procedures for ARENTO's operating units. The new Sector (S21) will develop standards in three basic areas: Management directives and administrative procedures, engineering practices and operating practices. There are two principal divisions in the Sector (S21): one is concerned with Technical preparation of methods and practices relating to outside plant, customers and services applications (vehicles, stores, etc.) and the second is the Production unit comprised of translators (Arabic/English) word processing specialists, and proofing, graphics and printing staff. This Sector was established in March 1981.

GRADE	CLASS GROUP
US of STATE	High Administration

Job Name: Director General of Organization and Administration

General Description:

- This job is located at the head of Organization and Administrative Sector.
- Occupant works under the direct supervision of the Chairman Board of Directors
- Superintends a number of general managers, departments managers and chief sections who perform the work of Organization and Administration.

Duties & Responsibilities

According to the Republican Decree No. 33/1977 and to the administrative instructions issued by the ARENTO concerned authority for its execution, as it is said by the Administrative instruction No. 2343 dated 9/7/1977 occupant works to following:

1. Studying proposals submitted by different zones and departments concerning organizational planning. Putting down the final planning for the organizational construction on the Organization's level defining organization and duties.

2. Giving opinion in organizing departments intended to be established.

3. Studying proposals concerning developing and simplifying work procedures, forms, sheets and planning locations in different sections of zones and departments. This would contribute in raising the efficiency of handling and economizing costs.

4. Proposing proper explanatory formation of authorities, duties and channels of communications in order to avoid repetition and duplication of the work.

5. Filling all documents of the Organization of decisions and instructions set for ARENTO's organs and units. Necessary decisions and instructions are to be transmitted to sub-units for execution.

6. Preparing circular reports related to the organizational situation, to be submitted to the Chairman Board of Directors.

7. Following-up the up-to-date development in researches of organization. Besides following up job classification plan according to instructions issued by the Central Organ for organization and administration.

8. Setting recommendations concerning improving rules and regulations of allowances, bonuses and compensations.

9. Following up work procedures of organization and administration units at ARENTO's zones and departments.

10. Supervision of executing job classification system at different units.

11. Following up re-evaluating jobs at the different zones and departments.

12. Preparing system of job classification on the base of duties, responsibilities and qualifications requires in accordance with directives issued by the Central management for job classifications at the Central Organ for Organization and Administration.

13. Supervision of Executing job classification system all over the bodies or ARENTO.

14. Making studies for personnel who perform jobs differ from that appointed to, and taking approval of the Central Organ for their transference from one job to another, with accordance to conditions and positions put down in the respect.

15. Supervision of making studies related to work measurement defining procedures and planning practices requirements.

16. Supervision of applying procedures for the sake of defining shortage and increase of personnel at different zones and departments.

17. Supervision of procedures records concerning each zone or departmental division, when the budget draft is prepared.

18. Participating in the concerned bodies in putting down personnel training policy.

19. contacting the different training organs and supervising, evaluating and following up programs.

20. Supervision of putting down the plan concerning distribution of bonuses, appointments and encouraging allowances for training.

21. Contacting the different foreign training centers, exchanging experiences, researches, statistics and institutes (ARAC - High Administration Institute - Universities).

22. Participating in the personnel affairs in calculating number, type and standard of personnel, defining manpower of different categories and professions.

23. Carrying out similar duties.

<u>Qualifications Required</u>

Suitable high degree

Performing at least one year experience in a lower position
Receiving training courses in the fields of organization and administration
Capability of leadership, guidance, putting down and following up plans and programs.

No. OF DESCRIPTION

GRADE	CLASS GROUP
DIRECTOR GENERAL	HIGH ADMINISTRATION

JOB NAME: Central Management Chief of Security and Civil Defense

GENERAL: This job is situated at the head of General Directorate of ARENTO's security and Civil Defense.

The occupant works under the supervision of Chairman Boards of Directors.

Duties & Responsibilities:

- Conserving security of ARENTO, according to directives issued in this respect.

- Carrying out similar jobs

Qualifications required:

- Suitable high degree
- Performing at least two years experience in lower grades
- Obtaining training courses in security and civil defense
- Capability of leadership and guidance

No. OF DESCRIPTION

GRADE	CLASS GROUP
DIRECTOR GENERAL	HIGH ADMINISTRATION

JOB NAME: Central Management Chief of Law Department

GENERAL: This job is situated at the head of ARENTO law administration

The occupant works under the supervision of Chairman Boards of Directors.

He supervises a number of managers of departments and sections who perform law works.

Duties & Responsibilities:

1. Technical and administrative supervision for all staff working at the central legal administration, and its branches in ARENTO's administrations and zones.

2. Performing important claims and opposition, investigating with employees on the level of high administration, investigations, legal opinions, technical works, preparing most important contract drafts and following up executing of judgments.

3. Checking important legal work and giving legal opinion.

4. Issuing decisions concerning organizing necessary legal books, according to work requirement, and to directive issued by Inspection Administration or by legal department affairs at the Ministry of Justice.

5. Supervision of preparing statistics and information required from the Law Administration.

6. Submitting suggestions concerning non-prosecute or going through suits, or conciliation, dispense with case or opposition.

7. Suggesting of nominating lawyers, reporting the public prosecutor, administrative prosecutor or the central organ for accounts with wrongdoing or crime committed according to each case discovered by the law administration.

8. Exposing claims raised against law administration or one of its members, to Chairman Board of Directors, who submitted them to Public Suitcase Administration for taking the necessary procedures.

9. Writing circular reports about financial and administrative wrongdoing discovered by the Administration, and suggesting means of reformation.

APPENDIX K
"COMMERCIALIZATION IN THE TELECOMMUNICATIONS INDUSTRY"

INDUSTRY FOCUS

Privatization in the Telecommunications Industry

by Peter S. Adam

Telecommunications have come a long way since Samuel F.B. Morse, the inventor of magnetic telegraphy, established the world's first telecommunications facility in 1844. Morse's "system" consisted of two magnetic keys connected by a single line that ran from Baltimore to Washington, DC. Telegraph soon spanned the globe and was rapidly augmented by telex and telephone, then wireless broadcast systems. These, in turn, have been supplanted by an astoundingly vast and growing array of ever-more-sophisticated telecommunications capabilities: cellular phones, faxes, personal computer modems, and on-line databanks, connected, in many cases worldwide, by intricate systems of satellites and earth stations, fiber optic networks and microwave antennae. Exotic innovations, such as interactive, 500-channel cable TV systems with computer capabilities and portable computers with built-in fax machines, are reportedly on their way from labs to living rooms in the more advanced corners of the global village.

Since the mid-1980s, political trends and economic forces have been shaped by and have contributed to the changes in the industry. The spread of global communications has spread the desire for democracy and greater economic opportunity among people yearning for the freedom and prosperity of the West, which they can see daily via satellite and CNN. Combined with the rapid, widespread changes in telecommunications technology, political and economic forces have propelled a broad reform movement in the industry, both in the developing and industrialized worlds.

Privatization has become the most widely used and most effective way to carry out reform in the telecommunications industry, liberating firms from the constraints imposed by the almost universal requirement that they operate as government-owned or highly regulated monopolies. The structure, organization, financial underpinnings and operational environment of telecommunications firms have all been transformed. Many telecommunications companies have been allowed, for the first time in history, to become innovative, privately owned enterprises competing, sometimes fiercely, with one another both locally and, in some cases, globally.

The Origins of Privatization

No less a figure than the "Iron Lady of Europe," former British Prime Minister Margaret Thatcher, is credited with having started the international telecommunications privatization movement. Approximately 140 years after Morse tapped out the first telecommunications message on his telegraph line, Mrs. Thatcher, determined to turn England away from socialism and into a nation of shareholders in private enterprises, embarked on an ambitious program of economic deregulation, featuring the sale of various British state-owned corporations.

British Telecom was successfully privatized in 1984 in a share issue that was heavily oversubscribed. Immediately after the offering, British Telecom's shares started to appreciate and have performed well ever since, as the privatized company has been reorganized, down-sized, made more efficient and allowed to compete in an opened-up market.

Since then, eight additional telecommunications privatizations have been completed, among them Argentina, Venezuela, Hong Kong, Mexico and New Zealand. Seven government-owned telephone operators are currently in the midst of such programs, including Singapore, the Czech Republic and Slovakia. Sixteen other countries, including Brazil, Nigeria, Zambia and Morocco, are in the planning stages. According to

472

studies by the British branch of Booz Allen & Hamilton and the World Bank, some 30 privatizations are likely to take place between now and 1995, which are expected to raise over US$ 150 billion. Table 1 shows the countries expected to privatize their telecommunications companies in the 1990s.

Telecommunications and Democracy

Politics have always played a major role in many governments' more or less heavy-handed involvement in telecommunications. Through control of communications media, governments can keep a tight lid on political dissent. Joseph Stalin once said that an open telecommunications system in Russia would inevitably become the tool of counterrevolutionary forces. Moreover, concern about the political nature of telecommunications has not just been limited to dictatorships: During World War I, the Bell system in the United States was nationalized temporarily to ensure it would not be subverted or infiltrated by enemy agents.

In recent years, many observers have regarded the development of less centralized and more dynamic telecommunications technologies as a key factor in the recent break-up of authoritarian economic and political systems. Even though dictators want to continue to control information, advances like cellular phones and satellites have made it increasingly difficult for them to do so. In China, for example, fax machines allowed the students who occupied Tiananmen Square to communicate with each other and the outside world. (It is ironic to note that China is opening up investment and operations for private companies in its growing cellular services market.)

The movement toward democracy around the globe, which has accelerated with the demise of communism in Eastern Europe and the former Soviet Union, has strengthened the trend toward free enterprise and helped spur privatization in industries such as airlines, utilities and oil companies, in addition to telecommunications. Privatization has been encouraged by the International Monetary Fund, World Bank and other multilateral financial institutions and, for the reasons cited earlier, has become broadly accepted by many reform-oriented governments. Also, it has met with a particularly positive response on Wall Street and the world's other major financial markets.

Legal, Financial and Political Challenges

However, important obstacles had to be surmounted before the foundation for privatized telecom systems could be put in place; politicians had to come around. It was a tough sell, understandably so. Privatizers have had to contend with a range of institutional challenges that have been, generally speaking, similar from one country to another. For starters, the political commitment to liberalization and reform has had to be comprehensive and genuine or privatization simply will not work.

Before embarking on telecommunications privatization, governments have had to modify all applicable laws and codes in areas such as foreign investment, basic telecommunications policy, frequency allocation, technical compatibility, universal service and rate structures. New laws have had to be enacted to allow for the personnel shifts, management changes, asset valuation and pricing, incentive schemes and accounting systems that will enable a government bureaucracy to become an efficient, autonomous corporation. To illustrate some of the complexities involved in privatization, the case of ENTEL in Argentina is described in the box on page 10.

Beyond the similarities involved in the large-scale legal preparations, privatization processes have varied, just as have the assets of systems sold off, from one country to another. Different, albeit often complementary, telecommunications entities, once bundled together, have had to be separated. In some countries various facilities, such as cellular networks, have been created from scratch. In others, fairly comprehensive telecommunications networks have been divided and reorganized along new geographic lines, as in Argentina, for example. The privatization of CANTV in Venezuela illustrates a somewhat different approach to telecommunications privatization.

Comparing Argentina and Venezuela

A look at these two telecommunications privatizations reveals impor-

(continued on page 12)

Table 1

Common Carrier Privatizations in the Developing World

1990	1991	1992	1993	1994	1995	1996	1997	Longer Term
Malaysia	Venezuela	Puerto Rico	Latvia	Kuwait	Indonesia	Brazil	Ecuador	Morocco
Argentina	Estonia	Lithuania	*Korea*	Pakistan	*Thailand*	Nigeria	Madagascar	Bangladesh
Mexico		Ukraine	Israel	Hungary	Colombia	Paraguay	Guinea	Nicaragua
Peru			*Singapore*	Turkey	Ivory Coast	Poland	Russia	Uruguay
				Czech Rep.	*Taiwan*			Bulgaria
					Panama			Romania
								India

Note: Countries in italic type are planning to privatize their carriers through public stock offerings without allowing a role for strategic investors.
Source: Pyramid Research, Inc.

473

The Evolution of Telecommunications: From State-Owned Monopoly to Privatization

Despite the torrid pace of change in telecommunications since its inception, only recently has the underlying structure of the industry changed at all significantly from what it was in Morse's day: a collection of government-controlled monopolies. The rationale for government ownership of telecommunications firms stemmed from a variety of both political and economic factors.

Politically, many governments have viewed state ownership of strategically important industries such as telecommunications, oil or other natural resources as necessary, ones that could not be left in private or foreign hands. Universal service is another political imperative, paid for by cross-subsidization, or charging subscribers disproportionately in areas where phone service is economic to cover the costs of providing service to areas where service would not be economic. Although they are well-received by outlying areas, such programs are not necessarily popular, either with those who have to pay for them or with the companies themselves. State ownership allows governments to meet this objective, which can be regarded as a public good. Since they are shielded from competition, state-owned telecommunications firms have been able to extract profits from subscribers sufficient to allow them to subsidize not only universal telecommunications service, but postal and other systems as well as state treasuries.

Prior to the development of semiconductors and printed circuit technologies, the economic rationale for a monopolistic telecommunications industry structure had been both compelling and universal. Because of the capital-intensive nature of the industry, telecommunications systems have high start-up costs, particularly with respect to local and international connecting equipment, and thus significant barriers to entry. Duplicate systems in single geographical areas were recognized as inefficient. Competition among parallel providers meant stronger entities would force weaker ones out of business, enabling survivors to reap monopolistic profits.

Major operational economies of scale reinforced the monopolistic structure of the industry. The marginal cost of installing and operating each additional telephone hook-up was minimal, and as the number of system subscribers increased and facilities expanded, the average cost of running each element of the entire system declined continuously, until a telecommunications company could begin to extract healthy profits from its subscribers.

Technological Developments Weaken Monopolistic Rationale

Starting in the 1970s, innovation in electronics accelerated; progress in semiconductor technology was rapid, particularly with respect to the development of integrated circuits and their large-scale applications. This was having a major impact, not just on the capabilities and operational characteristics of telecommunications systems, but on their economic and financial underpinnings and the dynamics and structure of the markets in which they operated. In both developed and developing countries, less expensive technologies were paving the way for a transformation of the industry's prevailing organizational and financial structure.

Changing economics and expanding capabilities now allowed for competition among service operators in a single network. A monopoly could be maintained in the actual physical infrastructure, but new services could be provided by complementary and competing firms attaching computer nodes to allow subscribers to communicate over the existing telecommunication system circuits. Mobile technology revolutionized access and reduced dramatically the labor costs involved in installation. In Europe, for example, building local cable networks can cost over $5,000 per subscriber; the implementation of mobile telephony networks cuts that cost by approximately one-half. Mobile networks can thus compete with established cable systems.

With barriers to entry falling and economies of scale shrinking, new firms can thus enter the market with less capital and less risk. Greater competition allows rates to be determined increasingly by markets rather than by regulatory authorities. At the same time, telecommunications are evolving in such a way that many newer services—including cellular, paging, data

474

communications and value-added services, as well as long distance—no longer fall neatly within the boundaries of a natural monopoly, even in developing countries. The changing telecommunications market provides increasing room for private participation. Increasingly, private firms have been called in to finance telecom development, channel important technical and managerial resources into the sector and develop new services and capabilities outside of, or in competition with the public network.

Monopolies' Shortcomings Particularly Evident in Third World

The 1980s brought changes not only in the telecommunications market, but broader changes in political and economic philosophies as well. Many countries began to transform their approach to economic development, abandoning the prior emphasis on the state as the major economic actor in favor of strengthening local private sectors so that they could become engines of growth. In keeping with this new philosophy, officials from Latin America, Asia and Africa started to recognize that the inefficiencies of their state-owned enterprises were major impediments to economic and social progress.

The shortcomings of government-owned telecommunications monopolies have been particularly pronounced. All one had to do was pick up a telephone: the odds were not good that it would even produce a tone. And dialing someone's number was often switchboard roulette. The vast majority of Third World governments had failed utterly in providing even the most basic communications services.

It was no mystery as to why. While government-owned telecommunications companies everywhere were hardly models of efficiency, most developing countries' telecommunications entities were particularly poorly managed. Their bureaucracies were bloated and characterized by ineptitude and unresponsiveness. Such telecom authorities typically had 50 to 100 employees for every 1,000 telephone lines in service, compared to 0.2 employees or fewer for the same number of lines among telephone companies in the U.S., Europe and Japan.

Table 2

1988 Telephone Waiting Lists

	Wait Period (Years)
Algeria	8.5
Argentina	21.9
Colombia	4.3
Egypt	27.1
Ghana	30.0
Indonesia	7.8
Jamaica	22.3
Malaysia	0.6
Pakistan	10.0
Philippines	7.1
Poland	12.2
Sri Lanka	8.5
Tanzania	10.9
Thailand	3.6
Tunisia	5.0
Uruguay	2.8
Venezuela	8.1
Zimbabwe	5.3

Source: ITU, Pyramid Research, Inc.

Typically, Third World telecom facilities also lacked the technical and managerial resources required to keep abreast of an increasingly complex industry. As Table 2 shows, as recently as 1988 in Argentina, Egypt and Jamaica, potential subscribers had to wait over twenty years to have a telephone installed, while those in Poland, Pakistan and Tanzania faced a ten-year waiting list. Call completion rates of 50 percent or less and significant underutilization of existing capacity were common.

Financially, developing countries' state-owned telecom companies were in poor shape, too. Vastly underfunded, telecom operators routinely diverted surpluses to fund postal operations and electric utilities, which often fall under the same ministry, or general government expenditures. For the most part, the resources needed to maintain—let alone expand or upgrade—telecommunications systems, which are a vital element of a nation's infrastructure in the modern global economy, have been unavailable. As a result, the businesses and economies depending on reliable telecom services in most of the world have suffered. It became evident that reform, in some cases drastic, in telecommunications would be necessary for any developing nation to progress from poverty to prosperity.

BEST AVAILABLE DOCUMENT

475

Structuring the Deal: The Privatization of ENTEL in Argentina

The privatization of Argentina's state-owned telecommunications company, Empresa Nacional de Teléfonos SA (ENTEL) illustrates how telecommunications privatization can be slowed down by political debate and how a deal can start to flounder when financial arrangements become particularly complex.

The program to privatize ENTEL began in March of 1988, when Spain's Telefónica Internacional reached an agreement to purchase a 40 percent stake in ENTEL. Under the terms of the original letter of intent, Telefónica was to invest approximately US $750 million in exchange for a 40 percent stake and management control. Negotiations dragged on for months, slowed by parliamentary opposition from the nationalist Peronist Party. A Peronist victory in the 1989 presidential elections further complicated the issue, bringing about additional delays. The Telefónica bid was officially scrapped soon after the election.

The Menem government took power in Buenos Aires, and privatization talks resumed soon thereafter in September of 1989. Under the plan that finally developed, ENTEL was to be divided into two companies—one to serve the northern portion of the country and the other to serve the south. Each company would have a monopoly concession for the first ten years, after which competition would be introduced. Under a variation of this plan, the sale was finally completed.

A total of 60 percent of ENTEL would be auctioned off to two consortia for US$ 214 million in cash, plus US$ 380 million payable over three years in Argentine foreign debt with a face value of US$ 2-3 billion. As the company was to be split in two, 60 percent of each unit was to be sold to a separate bidding consortium. The remaining shares were to be set aside for employees (10%), local telephone cooperatives (5%), and for local sales (25%). In addition, the Argentine government was to guarantee 16 percent annual profitability for the first two years, estimated to be worth over $US 500 million. While attractive to foreign investors, the plan put a low value on ENTEL, and made few guaranteed provisions for the upgrade of the Argentine network, and thus met with considerable opposition at home.

In March 1990, opponents succeeded in bringing about two major changes in the planned sell-off. First, the state-guaranteed profitability of the two companies was reduced by some US$ 200 million. The total guaranteed net annual profit was lowered from 16 percent of ENTEL's fixed net asset value of US$ 3.5 billion to 16 percent of ENTEL's fixed purchase price of US$ 1.9 billion. Secondly, the value of debt-equity swaps to potential foreign investors was lowered through a fixed minimum debt exchange worth US$ 3.5 billion.

Following the changes, some bidders dropped out, including consortia headed by BellSouth, Nynex, Cable and Wireless, and France Cables et Radio. Four other interested bidders were invited to resubmit bids by June 1, 1990. Due to the swap component, each consortium was required to include a bank or financial institution.

Bids from consortia led by Citicorp with Telefónica of Spain, Manufacturers Hanover with Bell Atlantic and J.P. Morgan with STET of Italy were opened on June 25, 1990. The Citicorp-Telefónica group won the initial bidding for both regions. However, as no single consortium was allowed to win the entire territory, Manufacturers Hanover/Bell Atlantic won the shares of the northern region.

The winning bids for ENTEL exceeded the minimum set by Argentina's government, blunting criticism from those who claimed setting a bid floor would drive bidders away and those who felt that ENTEL was being undervalued. The minimum set for the entire company was US$ 214 million in cash and US$ 3.5 billion in public debt and accrued interest. The cash figure was set and the bidding hinged entirely on the debt-equity portion of the deal. The Citicorp-Telefónica group's bid for the southern territory was US$ 2.18 billion in public debt and the assumption of US$ 540 million in accrued interest. Manufacturers Hanover and Bell Atlantic bid US$ 1.86 in public debt and US$ 372 million in assumed interest. Together they paid over US$ 5 billion in Argentine foreign debt.

Telefónica and Bell Atlantic were to have been responsible for all local service in their respective regions. Included also in each concession was provision of local service to one half of the city of Buenos Aires, where almost two-thirds of the country's phone lines are installed. Each was to have formed two separate joint ventures, one for provision of international service and one for provision of advanced and value-added service nationwide.

According to its preliminary development plans, Telefónica will expand the current 1.7 million lines to 2.32 million by the end of 1995. Bell Atlantic, however, was ultimately forced to renege when Manufacturers Hanover could not at the last minute come up with the financing as promised, due to the complexity of the debt-equity swap portion of the deal. The northern concession was thus awarded by default to STET of Italy and J.P. Morgan and Co.

476

Structuring the Deal: The Privatization of CANTV in Venezuela

The privatization of Venezuela's telecommunications company, CANTV, has proceeded successfully, for all parties, despite the political instability reflected in two military coup attempts against the government of Carlos Andrés Pérez in 1992. According to Andrew T. Jones, Vice President of International Telephone Operations for GTE, which led the winning consortium, "Knowing what we know now, with hindsight, our consortium would still bid for CANTV. We don't see any change in the long-term fundamentals for Venezuela, and in fact, we see the stage set for very positive social change in the country. We think the trend of events is toward positive democratic change. The basic fundamentals which caused us to bid for CANTV are still in place. Venezuela has a tremendous future, and we're glad we're going to participate in it."

CANTV's performance prior to privatization clearly pointed to the need for serious reform. Despite big cost increases, rates remained virtually unchanged during the 1980s, resulting in a steadily deteriorating profit picture. In addition, 47 percent of service demands were unmet, and there was an average waiting period of 8 years to obtain a new line. More than half of the public telephones were out of order. Only 19 percent of international calls were completed.

The GTE consortium won an open international bidding process with an offer of US$ 1,885 million, about US$ 1 billion more than the minimum price set by the government, for 40 percent of the shares of the government-owned company, which gives it the right to elect five of the nine directors. Local control was not a requirement in Venezuela, but GTE formed an international consortium with substantial local participation because management wisely recognized local investor involvement as very desirable. Two local companies, Electricidad de Caracas and Grupo Mercantil, have a combined 28 percent interest in the consortium.

The employees of CANTV will also have a significant interest in the company; 11 percent of the stock has been set aside for sale on a favorable deferred payment basis to the employees. The government retains 49 percent of the shares, and anticipates at some point selling some or all of them in an initial public offering, both in Venezuela and abroad. CANTV is the second largest company in Venezuela, so this will add a major company to the Caracas stock exchange. Many observers regard CANTV's broad-based local ownership as a stabilizing force and employee stock ownership as an incentive that will continue to help transform the company into an efficient, responsive private enterprise.

GTE based its assessment of the value of CANTV on a very reasonable set of rules that will allow the entity to be a financially viable business that can meet expansion and quality mandates. First, CANTV's basic services have been protected from competition for nine years, so that it can continue expanding the telecommunications infrastructure in Venezuela for the benefit of the entire country and not just the large users. Second, a price regulation scheme based on a price cap methodology combined with rate rebalancing will give CANTV the incentive to accomplish Venezuela's national telecommunications objectives while at the same time fairly compensating the shareholders.

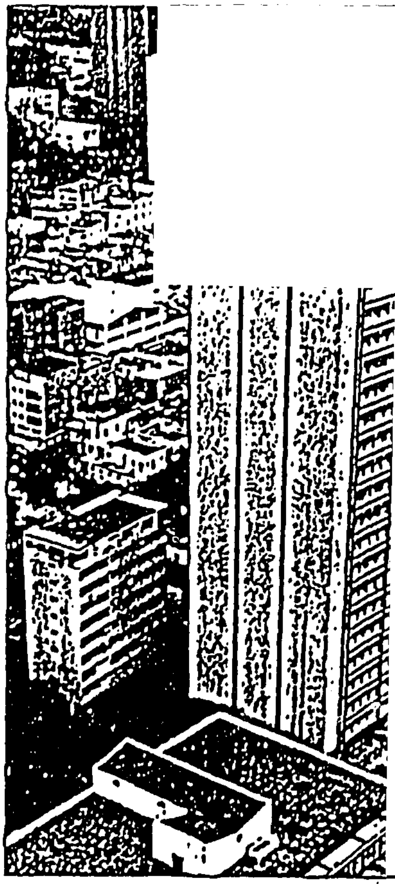
The regulatory scheme is enlightened in that it provides for the regulatory body to monitor and review CANTV's performance in meeting its objectives, but not approve or control actions of management, which has the responsibilities for meeting those objectives. So far, GTE has been pleased with the enlightened manner in which Venezuelan authorities have dealt with the newly privatized firm. Burdensome regulatory schemes have not been imposed on the company; the methodology by which rates have been determined as well as the specific areas and conditions under which competition has been allowed have both been consistent with the terms of the original agreement. The government does not seem likely to instruct the Communications Ministry to "change the rules of the game."

CANTV has posted impressive results thus far and maintains aggressive quality and network expansion objectives. Originally required to grow from approximately 1.6 million lines in 1991 to over 4.4 million by 2000, CANTV has already far surpassed interim targets. During 1992-1993, investments of over US$ 1 billion are planned, with 413,000 digital lines, the highest total recorded by CANTV, installed during 1992. 210,000 new customers were added last year, and 18,400 new public telephones, with state-of-the-art technology, were installed. The number of phone lines out of service decreased by 70 percent. GTE is confident CANTV will continue to meet and perhaps even surpass its dramatic growth and modernization targets and be a successful company.

477

tant similarities as well as significant differences. Both deals were structured to attract foreign investors, who were seen as essential sources of capital, technology and managerial know-how. In Argentina, there was the added wrinkle of using a debt-equity conversion, backed by U.S. Treasury guarantees under the Brady Plan, to reduce its foreign debt obligations. Both countries established protections from competition for multi-year periods, although Argentina guaranteed minimum profit levels as well. Both governments also mandated quality and performance targets, such as expanded line installations and reduced waiting periods, for the newly privatized enterprises.

The most important differences involved the ways in which the deals were structured. While the Argentine government granted majority stakes in ENTEL to the winning bidders, the GTE-led consortium acquired only a 40 percent stake in CANTV, which calls into question the degree of operating flexibility that it will enjoy, especially since the Venezuelan government will retain four of the nine director seats. Also, the use of price caps in Venezuela will help control prices, inflation and popular perceptions of price gouging (which have emerged in Argentina). Again, however, this device places constraints on the operational flexibility of the firm, and limits on profits may limit future investment in the firm.



The privatized CANTV stands stronger than ever under its new, private ownership.

In addition to the bidding mechanisms employed in Argentina and Venezuela, other techniques have been used in privatization transactions, depending on the characteristics of the firm as well as its operating environment. For example, in developed countries where telecommunications markets are characterized by a high penetration of phone lines among the population, communications entities and public investors alike have been bidding on real assets as well as the reorganized enterprises' potential. Everyone can be fairly certain as to what they are getting.

In countries where telecommunications systems reach only a small percentage of households, however, bidders have had to exercise more caution with respect to their offers. Growth potentials have been great, but existing systems are antiquated. In the developing world and Eastern Europe, assets that will have to be replaced may not be worth anything at all. Privatization for some countries means little more than auctioning off a license and an exclusive right to protected markets for a period of time until the investment can be recouped and an acceptable rate of return generated.

With respect to financial terms of sales arrangements, in developed countries these have been more or less straightforward—"plain vanilla" in the words of Wall Street—following relatively conventional lines for initial public offerings. Financings in developing country privatizations have, however, tended to be more complex. As described in the Argentina case, for example, the sale of ENTEL's assets included sovereign debt backed by U.S. Treasury securities. This not only complicated the bidding process, but eventually caused the withdrawal of one of the original bidders. Brazil, which has been studying the privatization of its phone system, which subscribers describe as "horrendous," may be even more complex.

Privatization Outcomes

Despite the difficulties of telecommunications privatizations, those which have taken place so far have been mostly successful in developing and developed countries alike. (A summary of the lessons learned from the telecom privatizations carried out thus far is presented in the

418

box on page 14.) Subscribers, shareholders and governments have all benefited. As shown in Chart 1, many countries have already experienced significant jumps in their digital switching capabilities, which are an important foundation for the introduction of more advanced telecommunications services.

In Argentina, the ENTEL privatization has had mixed results so far, and has stirred a great deal of controversy. Supporters note that the sale generated significant revenues for the government, helped lower its foreign debt and attracted foreign investors. Moreover, the successful implementation of the deal signaled the new government's commitment to privatization and reform and strengthened its credibility. Critics contend that the government guaranteed monopoly profits to make the sale more attractive for foreign investors and thus raise the bidding price. In so doing, the government showed more concern for maximizing revenues than for creating a more open and competitive telecommunications market. Citizens have complained that the service has not improved as much as prices have been raised. Many observers also cite the government's regulatory apparatus as inadequate.

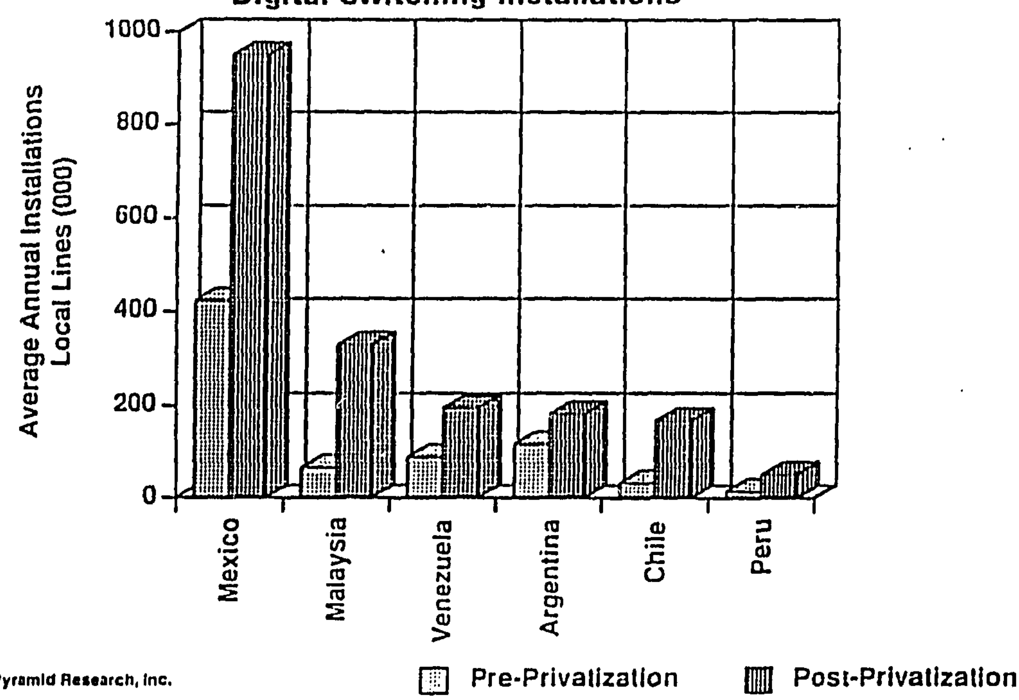
While privatization has been complex and critics—opposition parties and labor leaders—often vocal, most participants, even those whose bids have been rejected, have viewed the sales as aboveboard and free from the taint of corruption or favoritism. Governments have made a great deal of money in selling off these assets. Share prices of the private telecommunications outfits have appreciated, and foreign operating entities have picked up some good deals—but not at the expense of governments.

So far, agreements have been adhered to closely, and governments have allowed foreign companies to trim staff, realize efficiencies in operation and improve services. Authorities have not imposed, af the fact, burdensome regulat structures or new sets of constrai on the new operating compani While service improvements have, some cases, not been as rapid hoped for, expectations were in ma cases too high. It often takes a wh to improve phone service dramatica on an antiquated system, and most the developmental plans are schedule.

Only in Puerto Rico has privatization deal gone sour. As result of unrealistic advice, the Puer Rican legislature included conditio in the enabling legislation that, take as a whole, made the Puerto Ri Telephone Company unattractive f investors. The law set a minimu price of US$ 2 billion plus t assumption of US$ 1 billion in debt, also prohibited any increase in tarif and the termination of any employee from the old entity. The governme was unable to attract a bid meetin the minimum requirements, and th

Chart 1

Common Carrier Privatizations: Digital Switching Installations



Source: Pyramid Research, Inc.

BEST AVAILABLE DOCUMENT

479

APPENDIX L
ARENTO BUSINESS ACTIVITY APPROVAL PROCESS

ARENTO BUSINESS ACTIVITY APPROVAL PROCESSES

Five-Year Plans

The focus of preparation, discussion and approvals of ARENTO project capital expenditures centers around the first year and the total of the five-year plan and budget. For the first year of the plan a detailed project budget is developed along with a five year project summary. In essence the five-year outlook or plan is developed and submitted from the ground up every five years. Every year, the project plan is trued up or revised based on changing conditions. In this sense it is not a rolling five-year project plan but a revised five-year outlook. ARENTO is currently in the second five-year planning cycle that covers the 1992-93 through 1996-1997 fiscal years.

The five year outlook for capital expenditures that are described in the five-year plan are not reflective of actual funding required by ARENTO since operating expense requirements are not included. In addition, as the latter years of the plan arrive, the long-term nature and planning value decreases. In the last year of the plan, ARENTO and the GOE have a very short run outlook and, as a result, the future value of projects is difficult to ascertain.

There are essentially two five year project plans. One that is assembled by ARENTO staff and approved by its Board of Directors and another that is subject to further refinement and adjustment by various ministries outside of ARENTO. Although the objectives of the ministries relative to the ARENTO plans are not clear either to ARENTO or to the Study Team, is seems as though each ministry is attempting to exert influence or control on the allocation of resources and projects undertaken by the telecommunications sector.

As a result, a procedure has evolved in budget development, presentation and approval that attempts to offset the external influences of the various involved ministries. The effectiveness in managing and controlling the actions of ARENTO in investment decisions and performance by external ministries is highly questionable. The entire exercise of plan and budget information to gain ministry approval serves a marginal purpose. The Study Team recommendation is that the energy spent in the current approval process should be diverted to the establishment of Telecommunications goals and objectives and the measurement of ARENTO contribution toward meeting these objectives.

The five-year plan will be addressed later in this study to understand its accuracy and value. Since the main focus of the project planning and budgeting efforts at ARENTO are the next year or the plan, the Study Team's analysis is centered on the next or focus year development and approval processes. The legal underpinning for budget approval is not explicit in terms of written law. In fact, under Law 153 ARENTO is exempted from the national project approval projects. The ARENTO plan submission and approval procedure has evolved from assumed authority of the various ministries involved and cannot be attributed to anything but and implicit and undocumented "internal law" enforced by experienced participants both in and outside of ARENTO.

The Ministers of Planning and International Cooperation are asked to review the five-year project plans relative to included projects and foreign debt levels, respectively. The initial budget request is submitted to the Chairman of ARENTO for approval before it is presented, in turn, to the ARENTO Board of Directors for approval. In some cases the Board may request modifications, however, the resulting budget is a reasonably accurate annual project management control budget and compares favorably to actual expenditures during the year.

The board approved five-year plan is then submitted to the Minister of Communications for his signature. The five-year project budget is subsequently submitted to the Minister of Finance and the Minister of Planning for further review and approval. This initial budget submission is typically reduced by eliminating programs based on total national annual project requirements and expected funds from various sources and budget submissions from all public sectors of the economy. That is, ARENTO funds sources and project capital requirements as cast in the budget submission are aggregated with budgeted revenues and capital requirements from transportation, power, post, marine, civil aviation , police and other sectors to create a total picture of funds sources and requirements for the GOE.

Due to the growth in required expenditures in other sectors and the shortfalls in revenues or funds sources, the ARENTO initial budget is typically reduced by the Ministers of Finance and Planning through cutting programs. The minister of Finance then returns a revised and significantly smaller budget to ARENTO's CDC of Finance. The CDC and the Chairman of ARENTO then engage in negotiations to arrive at a mutually acceptable budget. The ARENTO representatives argue for the re inclusion of expense funding and key programs that were eliminated by the Ministers. Usually only about 25 to 30 percent of the originally requested program funding and current year expense levels survive in the negotiated budget. The focus year of the approved five-year plan is usually one-fifth of the entire plan.

Other ministries get involved in the budget review process and exert influence on the final approved plan. The Minister of Economic and Foreign Trade, Minister of International Cooperation, and the Egyptian National Investment Bank comment on the level of ARENTO international debt and the total debt described in the initial budget request. The ARENTO budget is combined with other ministries project plans to develop a National Plan. The National Plan is then presented to President's Cabinet who, in turn, submit the plan to the People's National Assembly (PNA) for approval. Usually, no changes are made by the PNA. After approval the plan becomes a proposed "Law of Planning Budget" which is signed by President Mubarak and officially becomes a law. This process is repeated each year as the focus year advances in the five-year plan and the plan is revised. The final approved ARENTO five-year plan is then distributed to each ministry that has reviewed it and to the ARENTO sectors by the CDC of Finance.

Additional project funding requirements during the focus year are submitted by the CDC of Finance to the Ministers of Finance and Planning. The current rule of thumb is that project overruns can be funded if they are matched with revenue overruns. There is an implicit limitation to this "matching principle" that is not explicitly stated.

Annual Operating Budget

In this section a the process of developing the operating budget for the focus year is described along with the current approval processes. The operating budget for the next plan year is derived from a roll up of individual sector budgets submitted to the CDC Finance of ARENTO. This budget outlines operating expense requirements that the Sector Heads and the CDC of Finance agree upon. In addition, the CDC of Finance allows some funding flexibility by adding an additional contingency amount above requested operational expenses and program requirements. The intent of this budget is a reasonable representation of expected expenditures and source of funding for the year.

The CDC of Finance retains a contingency amount that is released by him as required to fund special over budget projects. The existing rule of thumb is that the contingency fund is approximately ten percent of the full labor expenses for the 60,000 ARENTO employees. This contingency fund level assumes that about ten percent of the ARENTO labor force will receive remuneration from other agencies and ministries for services rendered during the course of the year.

Each sector chief may adjust his respective line item sector budget levels as long as his total allocated sector budget is not changed. Additional sector funding can be requested from the CDC of Finance. The CDC of Finance can allocate contingency funds to meet the additional sector requirements. The criteria for the allocation of contingency is not clear.

The annual operating budget is submitted to the Board of Directors for review and approval and is subsequently sent to the Minister of Communications for his signature. The Minister of Finance then reviews the operating budget and typically ensures that operational expenses are held relatively flat from year to year. Once approved by the Minister of Finance, the budget is returned to the CDC of Finance in ARENTO who distributes the approved budget to the various sectors.

If additional funds are required during the course of the initial or current year of the plan, the Minister of Finance asserts authority over ARENTO to approve or disapprove requests. The process of initial year budget adjustment request and approvals occurs quarterly through correspondence between the ARENTO CDC of Finance and the Minister of Finance that occurs as needed. Added focus on the funding true-up is given at the end of the fiscal year.

Usually, the approved focus year budget project funding is spent by ARENTO in the first three to six months. While the project funding shortfall occurs quickly during the fiscal year, the progress of identified ARENTO projects that are yet to be funded is not halted. In these projects, funding approvals by the Finance Minister are ex post and occur after the first six months of the fiscal year.

Operational expenses are not increased during the year. For the past several years, salary increases of five percent from basic levels is factored into the budget. This increase is offset by the assumption that about ten percent of employees will be paid from other sources.

The end result of the approval procedure is an actual funds expenditure level that is close to ARENTO's original budget submission that is approved by the Board of Directors. The question remains whether the actions to gain budget approval and revision by ARENTO with the Finance and Planning Ministries serves to ensure the proximity of actual expenditures to initial budget request. The causal effect of these activities is unclear to the Study Team and the participants in the process. Micro management of ARENTO by the ministries does not appear to be a legal requirement.

<u>Recommendations Relative to Plans and Budgets</u>

The study team has found that the current five-year plan approval ritual conducted between ARENTO and the Ministries of Finance and Planning results in the development a relatively inaccurate funding scenario which serves little purpose to either ARENTO or the GOE. This is demonstrated by the comparison of the original budget requested and approved by the Board of Directors to actual expenditures. The ARENTO Board of Directors should be empowered to review and provide final approval for the funding requirements of ARENTO for operating expenditures as well as identified projects. The Study Team findings revealed that the current law supports the recommendation. The current and more elaborate approval processes implemented by the various ministries are not prescribed by law.

Additionally, the long term nature of the project budgeting and planning process should be preserved through the concept of a rolling five-year plan. I this respect the anticipated costs and revenues of major projects categories may be tracked and evaluated by the upper management of Board of Directors or ARENTO. We do not recommend that ARENTO should develop additional five-year plan budget detail. The rolling five-year plan may still be used by the GOE to examine macro funding issues.

APPENDIX M
STEPS IN RULE MAKING

STEPS IN RULE MAKING

1. Initiation of Action. Suggestions for changes to the Commission rules and regulations can come from sources outside of the commission either by formal petition, legislation, court decision or informal suggestion. In addition, a office within the Commission Staff can initiate a Rule Making proceeding on its own.

2. Office Evaluation. When a petition for Rule Making is received, it is sent to the appropriate office for evaluation. If the office decides a particular petitions meritorious, it can request that the Managing Director assign a Rule Making number to the petition. A similar request is make when an office decides to initiate a Rule Making procedure on its own. A weekly notice is issued listing all accepted petitions for Rule Making and the public has 30 days to submit comments. The office then has the option of generating an agenda item requesting action by the Commission.

3. Possible Commission Actions.Major changes to the Rules are presented to the public as either an Notice of Inquiry or a Notice of Proposed Rule Making. The Commission will issue an NOI when it is simply asking for information on a broad subject or is trying to generate ideas on a given topic. An NPRM is issued when there is a specific change to the rules being proposed. If an NOI is issued, it must be followed by either an NPRM a notice otherwise concluding the inquiry.

4. Comments and Replies Evaluated. When an NOI or NPRM has been issued, the public is given the opportunity to comment initially, and then respond to the comments that are made. When the Commission does not receive sufficient comments to make a decision, a further NOI or NPRM may be issued, again calling for comments and replies. It may be determined that an oral argument before the Commission is needed to provide an opportunity for the public to testify before the Commission as well as for the office to present diverse opinions concerning the proposed rule changes.

5. Report & Order Issued. A Report & Order is issued by the Commission stating the new or amended Rule or stating that the Rules will not be changed. The proceeding may be terminated in whole or in part.

6. Reconsideration Given. Petitions for reconsideration may be filed by the public within 30 days after the ruling has be issued. They are reviewed by the appropriate office and/or by the Commission.

7. Modifications Possible. As a result of its review of a petition for reconsideration, the Commission may issue a Memorandum of Understanding modifying its initial decision or denying the petition for consideration.

APPENDIX N
TRUNK CONGESTION REPORT
DECEMBER 1993

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Trunks Congestion Reports - December [illegible]

ABASIA TANDEM 2						RAMSIS TANDEM 2									
CONGESTION PERCENT					NO. OF	CONGESTION PERCENT								NO. OF	DESTINATION
			27-Dec	30-Nov	CIRCUITS							27-Dec	30-Nov	CIRCUITS	
			20	3	168							—	—	96	Abbasia T1
			22	12	210							—	—	210	Abbasia T2
			—	—	144							—	—	96	Cairo 2
			—	—	120							—	—	300	International
			95	94	48							—	—	287	Ramsis T1
			—	—	72							—	—	75	Private Services
			—	—	240							—	7	270	Giza D
			—	—	450							—	—	630	Maryotia D
			11	45	300							—	—	390	Heliopolis D
			—	34	300							—	59	480	Kalaa D
			—	—	360							—	—	330	Opera D
			—	—	150							—	—	210	Pyramid D
			—	—	180							—	—	320	Ramsis D
			—	—	180							—	—	210	Boulak M
			—	—	180							—	—	240	Dar El Salam M
			—	—	150							—	—	210	Helwan M
			—	—	180							—	—	180	Imbaba m
			—	—	150							43	20	180	El Omrania
			—	—	210							—	—	240	Ramsis M
			—	8	210							—	—	180	Shobra M
			—	—	120							—	—	90	El Zawya M
			71	66	200							—	—	192	Abbasia A
			—	—	144							—	—	192	Bab El Louk A
			87	79	168							—	—	120	Heliopolis 1A
			79	74	168							—	—	96	Heliopolis 2A
			—	—	96							—	11	192	Maadi 1A
			—	—	96							13	5	108	Maadi 2A
			—	—	72						—	—	—	120	Zamalek A
			9	13	96							4	—	72	Almaza A
			9	—	168							56	47	180	Dokky A
			—	—	192							15	14	192	Talat Harb A

ABASIA TANDEM 2			RAMSIS TANDEM 2			
CONGESTION PERCENT		NO. OF	CONGESTION PERCENT		NO. OF	DESTINATION
27-Dec	30-Nov	CIRCUITS	27-Dec	30-Nov	CIRCUITS	
61	53	168	----	----	168	El Kobba A
----	45	24	----	14	48	El Mataria A
----	----	144	----	12	192	Mohandseen A
78	76	120	33	16	120	Nasr 1 A
27	12	96	23	14	120	Roda A
82	90	75	----	60	96	Abbasia X-bar
78	75	72	----	----	72	Almaza X-bar
----	52	72	----	29	96	Dokky X-bar
----	----	84	----	----	96	Giza 1 X-bar
----	----	60	----	----	48	Giza 3 X-bar
----	----	48	19	12	72	Helwan X-bar
----	70	72	----	8	72	Opera 1 X-bar
----	----	24	6	----	96	Opera 2 X-bar
----	24	120	----	7	129	Ramsis 3&4 X-bar
26	12	48	30	12	72	Roda 1 X-bar
34	10	48	----	----	72	Roda 3 x-bar
60	80	72	----	----	96	Shobra 3 X-bar
----	----	96	----	----	60	Almaza x-bar
----	73	24	----	----	24	Nasr 2 X-bar
44	16	36	----	----	12	Nozha X-bar
----	----	150	----	----	150	Almaza D
----	----	150	----	----	150	Imbaba D
----	----	120	----	----	60	El Khanka D
----	----	----	----	----	90	El Kanater D
44	40	270	----	7	180	El Kobba D
----	----	300	----	----	300	Mohandseen D
----	----	150	----	----	180	El Marg D
----	----	150	----	----	120	El mataria d
----	----	150	----	----	120	Nasr 1 D
----	----	150	----	----	150	Nasr 2 D
----	----	----	----	----	120	Kalyob D

ABASIA TANDEM 2						RAMSIS TANDEM 2									
CONGESTION PERCENT					NO. OF	CONGESTION PERCENT								NO. OF	DESTINATION
			27-Dec	30-Nov	CIRCUITS							27-Dec	30-Nov	CIRCUITS	
			49	----	360								----	390	Shobra D
			----	----	240								----	210	Shobra El Kheima D
			----	----	330								----	330	Sharabia D
			19	24	120								----	150	Dar El Salam D
			74	70	72								----	48	10th Ramadan D
			----	15	72								22	96	
			1050	1302								253	376		Total Congestion
															Percent
			16	197								3.7	5.5		Average Congestion
															Percent
			66	66								68	68		Total destinations
			23	29								11	19		Destinations Suffering of
															Congestion

NO. OF TRUNK CIRCUITS, INTRODUCED IN SERVICE THROUGH DECEMBER, 1993

SYSTEM	INCREASED BY	NO. OF CIRCUITS TO	NO. OF CIRCUITS FROM	DESTINATIONS
1.5 MB/S	48	216	168	Abbasia A - Ramsis T2
	48	240	192	Ramsis T2 - Abbasia A
	24	120	96	Heliopolis 1 - Ramsis T2
	24	96	72	Heliopolis 2 - ramsis T2
	24	96	72	Ramsis T2 - Abbasia 1
	24	72	48	Ramsis T2 - Almaza
	24	96	72	Ramsis T2 - Dokky 1
	24	72	48	Abbasia T2 - Dokky 1
	48	144	96	Ramsis 3&4 - Abbasia T2
	72	120	48	Abbasia T2 - Ramsis 3&4
	72	72	-----	Shobra 3&4 - Abbasia T2
	51	129	78	Ramsis T2 - ramsis 3&4
	50	126	76	Ramsis 3&4 - Ramsis T2
	533			**Total Increase**
2 MB/S	60	240	180	Abbasia T2 - Shobra El Kheima
	60	300	240	Ramsis T2 - Mohandseen
	60	300	240	Mohandseen - Ramsis T2
	180	480	300	Kalaa - Ramsis T2
	180	480	300	Ramsis T2 - Kalaa
	60	300	240	Heliopolis D - Abbasis T2
	60	300	240	Abbasia T2 - Heliopolis D
	60	60	----	Nasr 1D - Nasr 2D
	60	60	----	Nasr 2D - Nasr 1D
	60	60	----	Nasr 1D - Almaza D
	30	30	----	Almaza D - Nasr 1D
	870			**Total Increase**
1403				**Grand Total**