

- (5) Inception Report on PCM Digital Microwave Junctions Project in Alexandria Local Network (1980 Jan.)
(ARENTO)
- (6) Egypt Telecommunication Network Study Report (1980 Feb.)
(Japan Telecommunication Engineering & Consulting)
- (7) Telephone Tariff Table in ARENTO
(ARENTO)
- (8) Financial Reports in ARENTO (1976-1980)
(ARENTO)
- (9) Population and Development (1980 Apr.)
(A. R. E)
- (10) World Map : Egypt 1/1,000,000
(Cairo Lehnert & Landrock Succ.)

1-2 Egypt and Japanese Economy

In 1980, Japan exported to Egypt to the amount of US\$644 million. This figure represented a 62% increase, compared with the year before.

Main factors that supported the brisk export performance from Japan to Egypt were:

- (1) The increased Japanese economic aid to Egypt;
- (2) The increased canal and tourist service revenues of Egypt;
- (3) The increased crude oil export revenue of Egypt;

- (4) The increased home-bound remittances from overseas Egyptian laborers.

The progress of import liberalization (Open Door Policy) on the part of Egypt was another important factor that promoted the Japanese exports to Egypt centering upon the consumption goods.

Also, in 1980, Japan imported from Egypt to a total of US\$141,770,000. This was a growth by 49.7% over the preceding year's record. As usual, raw cotton was by far the major import commodity. The raw cotton import was valued at US\$78 million, up 10%.

A characteristic feature of Japan-Egypt trade in 1980 was that, for the first time, crude oil took second place after raw cotton in value on the import list. Trade relationships between Japan and Egypt highlighted by the crude oil import by Japan will become more and more intimate from now on.

1-3 Egyptian Economy

1-3-1 Overview of Egyptian Economy

The Egyptian economy, encouraged by the open door policy of President Sadat, which began to take effect around 1976, has achieved remarkable growth in the last 2-3 years.

The nominal GDP (gross domestic product) of 1979 is estimated at 12,409 million Egyptian Pounds. (The Egyptian Pound is hereinafter abbreviated as LE.) Thus, for the first time in the history of Egyptian economy, GDP has reached and exceeded the LE 10 billion level. The nominal GDP of 1979 is approximately three times that of 1974.

The fund demand and supply situation in Egypt has been broadly improved at present. Chief among the inducements are the large inflow of financial aids from the principal Western bloc countries including the U.S., West Germany and Japan and from international financial organizations such as the World Bank and IMF (International Monetary Fund), the increase of petroleum export revenue and of Suez Canal toll revenue, and the rapidly growing home-bound remittances of foreign currency earnings by overseas Egyptian laborers.

Such improvement of monetary flows in Egypt is reflected in the brisk investment activities addressed to social overhead capital and production facilities of all kinds.

1-3-2 Money Market

In 1980, several financial policies began to be put into practice.

Effective April 1, 1980, the Government of Egypt raised the interest rate by 1% per annum. Under the new interest system, the discount rate of the Central Bank has been revised from 9% to 10%. This means that the rate of interest on loans is 11% at the minimum and 13% at the maximum. The new interest rates on deposits are as follows:

2-3 years time deposit:	8.5% per annum
3-5 years time deposit:	9.0% per annum
Longer than 5 years time deposit:	9.5% per annum

1-4 Five-Year National Development Plan and
Telecommunications Upgrading Investments

The new five-year national development plan of Egypt is based on the rolling plan system so that the development contents vary to some extent from year to year.

However, the basic objectives of social development remain unchanged: the increase of food production for the purpose of autarchy; the upgrading of social overhead capital to improve the productivity of national economy; and the substantial housing supply to keep in line with social welfare.

The national finance has not yet been relieved out of the deficit keynote. To remedy the situation, the Government continues to depend upon the increased currency issue and the aids from abroad.

The increased currency issue causes the inflation to prevail and the inflation is bound to chill the savings enthusiasm of the nation. The broad raise of interest rates on bank deposits reflects the Government's attempt to stabilize the currency value and, through it, the national economy.

The financial management of public utility corporations, including ARENTO, cannot but be adversely influenced. However, the upgrading of telecommunications network is one of the social overhead capital items that claims top priority consideration. For the modernisation of local network in Alexandria alone, an investment plan involving well over 10 billion Japanese yen is being worked out.

As of 1979, the population of Egypt numbered 39 million. The growth of population is expected to continue at an annual rate of slightly less than 2%. In Egypt, the number of subscriber telephone circuits as of 1979 was 360,000 and the number of telephones installed was 473,000. The equivalents per 100 persons were 0.92 and 1.21, respectively.

Also in 1979, GDP per capita amounted to approximately US\$440.

1-5 Upgrading of Local Network in Alexandria

In the Alexandria district, the exchange to exchange network is constituted with the existing local junction cables. However, due to the extreme aging of equipment, the local telephone system is infested with frequent troubles and wrong connections. Therefore, the service that fully satisfies subscribers cannot be expected.

To cope with the situation, the five-year national development plan also calls for the telephone system modernization without delay. As a matter of fact, each exchange office has its plan for broad increases of subscriber lines.

Thus arises the need for large capacity transmission system to be linked with both the existing and newly installed switching equipment. The current project planned by ARENTO is to answer such purpose. This project, besides absorbing the prospective telephone demand, purports to realize the wholesome service management by ARENTO.

The current project, when completed, is to have in operation of the telephone network project to be implemented by the end of 1989. Furthermore, by the improvement and expansion of the local network in Alexandria, the current project will go a long way toward enhancing the management efficiency of ARENTO that assumes responsibility for project implementation in the economic/financial aspect.

2. Loan and Project Evaluation

2-1 Program and Project

In accordance with the project implementation plan based on the new Five-Year National Development Plan of the Government of Egypt, the project financing program has been formulated as described below.

The assumption for project implementation is that the construction work be carried out in two years after the contract award so that the service-in can be expected in the early part of 1984.

Service life of the system to be completed by this project is assumed to be 15 years. In Egypt, there is no particular institutional restriction that applies to the system life, so that the wear and tear of the system is to be remedied by the replacement of aged equipment with the technically new type of equipment.

Therefore, it is assumed that the system does terminate its service life in 15 years after 1984, i.e., in 1998. On this assumption, the project implementation finance is programmed.

The system capacity is determined, based on subscriber demand for telephone traffic and in compliance with the demand fulfillment plan now in progress. In other words, the transmission route facilities equivalent to the final target of the demand fulfillment plan by the end of 1989 are to be completely constructed during the project implementation period.

For the construction of the additional transmission network facilities to complete the demand fulfillment plan in future, a new project will be initiated by ARENTO. Such new project is outside the scope of the current project.

2-2 Initial Investment

Details of initial investment required for the planning and execution of this project appear in Table III-1.

An outline of such initial investment follows:

Foreign currency portion:	¥5,836,000,000
	(LE 18,559,000)
Domestic currency portion:	LE 1,783,000
Total investment:	LE 20,342,000

It is assumed that the whole of the above quoted foreign currency portion be procured in the form of a long-term loan from an outside financial institution whereas the domestic currency portion be filled wholly with the ARENTO fund on hand.

Financial spendings for project implementation are planned as follows:

Initial year:	LE 13,733,000	(*¥4,105,000,000)
Second year:	LE 6,240,000	(*¥1,634,000,000)
Third year:	LE 369,000	(*¥97,000,000)

* Note: The figure in parentheses stands for the foreign currency portion to be provided by a long-term loan.

The equipment investment breakdown in Table III-1 is presented in Egyptian Pounds for the corresponding amounts used in PART II of this Feasibility Study Report.

(1) The cost of equipments and materials required for the PCM digital microwave transmission system to be constructed by this project, as well as the cost of in-factory training in the country where such equipments and materials will be procured, is to be covered by the foreign currency portion provided by a long-term loan.

(2) The cost of services to be performed or employed by the Contractor, who belongs to the country where the required facilities will be procured, such as:

- o Field guidance of personnel to be dispatched by the Contractor for system operation and maintenance management, and overseas subsistence of such personnel;

- o Installation of equipments and facilities;

- o Consultant service for evaluation of tender proposals and assistance in contract negotiations, as well as construction/installation work supervising and management

is considered to be partially covered by ARENTO's fund on hand as is evident in Table III-1.

- (3) The cost of architecture for transmission facilities is considered to be wholly covered by ARENTO's fund on hand.

The rates of exchange for the currencies used are LE 0.69 to US\$1 and ¥217 to US\$1.

A detailed defrayment plan for project cost appears in Table III-2.

2-3 Working Capital

When the managing entity for telecommunication services runs as a business entity, the floating account required for project implementation constitutes the working capital. As the result of study as to the financial capability of ARENTO as a business entity from the telephone tariff system and related data of all kinds, the working capital of this project is featured as follows:

- (1) From the year of service-in of the system following the completion of construction work, the project revenue increment of each year compared with the preceding year is put on record in the capital account.
- (2) The total working capital balance for the service period of the system is, when the system life terminates, included in the project revenue along with the salvage value of the system.

The result of calculations based on the foregoing consideration appears in Table III-3.

2-4 Operating Expenses

2-4-1 Operating and Administrative Expenses

Operating expenses consist of direct expenses, i.e., the expenses of operation and maintenance of the telecommunication system constructed, and indirect expenses incurred for system management.

2-4-2 Maintenance Expenses

Maintenance expenses comprise engine generator fuel expense, switching equipment spare parts expense, maintenance vehicle expense, maintenance personnel expense, and so forth.

Maintenance expenses are estimated as necessary expenses for keeping the operating efficiency of the system integral. Although this expense category is more or less on the uptrend during the service life of the system, the estimate is made in consideration of the past records of ARENTO. The result of calculation is in the annual mean in which the increased number of repairs resulting from the progress of equipment aging and the improved work efficiency of the maintenance personnel are fully considered. For details, see Table III-4.

2-4-3 Gross Operating Expenses

Gross operating expenses are the sum of the previously mentioned direct expenses and indirect expenses.

The year by year breakdown follows:

(Unit: LE 1,000)

Initial-Second Years	-
Third Year	785
Fourth Year	836
Fifth Year	888
Sixth Year	940
Seventh Year	992
Eighth Year	1,044
Ninth Year	1,044
Tenth Year	1,044
Eleventh Year	1,044
Twelfth Year	1,044
Thirteenth Year	1,044
Fourteenth Year	1,044
Fifteenth Year	1,044
Sixteenth Year	1,044
Seventeenth Year	1,044

2-5 Salvage Value of Project

The salvage value of the project at its termination (15 years after the service-in) cannot be accurately calculated. Here, it is set at 10% of the amount of equipment investment at the project inception, and, on this basis, the project revenue in the final year is estimated. The result of estimation appears in Table III-3.

2-6 Tariff System

The existing telephone tariff system of ARENTO is extremely complicated.

(1) Telephone Installation Expense

Telephone installation expenses are:

o At general residences and public organizations:
LE 50 per subscriber

o At minor enterprises and privately managed business
offices: LE 100 per subscriber

o At big enterprises and banking organizations:
LE 150 per subscriber

(2) Basic Tariff

The basic tariff is uniform at LE 18 per subscriber
per year.

(3) Local Call

For Local call charges, the excess call charge system
is adopted. In the case of residence telephones, the
calls in excess of 1,500 per year are subject to the
charge of LE 0.03 (3 piasters) per call. In the case
of telephones installed at governmental
organizations, the said charge per call is imposed on
the calls in excess of 1,000 per year. In the case
of private business offices, the above charge per
call is applied to the calls in excess of 300 per
year, without discrimination by the size of business.

Each call duration subject to the charge of LE 0.03
is without limit.

(4) Toll Call

The toll call charges vary according to the distance of connection. Each charge category is effective for the first three minutes and each additional three minutes.

Toll call charges in detail are given in Table III-5.

(5) Subscriber Deposit

Both residential and institutional subscribers, to whom the excess call charge system applies, are bound to produce an annual deposit of LE 2 per subscriber.

Considering the status quo of Egyptian economy and the general price uptrend, the tariff raises in different aspects are probable after the completion of this project. The expected tariff raises will be up to but not exceeding the prevailing tariff levels in many other countries. ARENTO itself is proceeding ahead with a plan to modify the existing tariff system. Prospects loom large for tariff raises in the near future pending approval by the competent government department.

In this chapter also, a concrete plan for tariff system improvement is proposed, and this proposal is taken into account in the economic evaluation of this project.

2-7 Operating Revenue

Operating revenue accruing from the implementation of this project can be found in the following segments:

- (1) Part of revenue from local telephone service, or, more precisely, the revenue equivalent to the economic merit which the transmission network to be realized by this project occupies in the whole telephone system in Alexandria.
- (2) Part of revenue from toll telephone service, i.e., the revenue equivalent to the rate of contribution of the transmission network to be realized by this project to the toll telephone service which the Alexandria district utilizes.
- (3) Part of basic tariff revenue from telephone facilities installation in subscriber premises. When the effect of basic tariff system in equipment investment activities of ARENTO is analyzed, the basic tariff revenue can be construed as part of call service revenue and, as such, can be evaluated as being beneficial to ARENTO.
- (4) Part of revenue from international telephone service which the transmission network of Alexandria utilizes.

ARENTO has a telephone circuit construction plan up to the latter half of 1990s as is indicated in the section that deals with the demand forecast.

In the calculation of revenue from telephone service, many factors are used as variables. Among them are the telephone tariff system, the holding time of telephone users, the traffic between call destinations, the mean value of busy hour traffic per subscriber, and the types of business organizations operating in Alexandria, besides the aforementioned circuit construction plan for system improvement.

(5) Revenue from other services

There is no plan to utilize part of transmission system to be improved and expanded by this project for telex and telegraph service and for television relay service. Assuming that these services will be continued by use of the existing transmission system, revenue from these services after the completion of this project is not considered.

As far as this project is concerned, the gross operating revenue is the sum of the preceding items (1) to (5). Details are given in Table III-6.

The year by year breakdown of the gross operating revenue follows:

	(Unit: LE 1,000)
Initial-Second Years	-
Third Year	3,138
Fourth Year	3,345
Fifth Year	3,553
Sixth Year	3,760
Seventh Year	3,967
Eighth Year	4,175
Ninth Year	4,175
Tenth Year	4,175
Eleventh Year	4,175
Twelfth Year	4,175
Thirteenth Year	4,175
Fourteenth Year	4,175
Fifteenth Year	4,175
Sixteenth Year	4,175
Seventeenth Year	4,175

2-8 Project Loan

The project loan covering the foreign currency portion of the equipment purchase and equipment installation budget plus the consultant service fee totals an estimated ¥5,836 million. The breakdown by major items follows:

	(Unit: Million Japanese Yen)
Microwave system	4,436
Consultant service	104
Others	1,296
<hr/>	
Total	5,836

2-9 Loan Disbursement

The requested loan will be disbursed during the construction work period according to the work progress schedule. For equipments and materials necessary for construction work and to be imported, the corresponding part of loan will be disbursed in CIF prices, and for services in the corresponding amount out of foreign currency expenses. The year by year loan disbursements in the domestic currency equivalents will be:

	(Unit: LE 1,000)
1982	LE 13,054
1983	LE 5,195
1984	LE 310
<hr/>	
Total	LE 18,559

Further details of loan disbursements appear in Table III-2.

Loan disbursements will be made in the currency of the loan extending country. The terms of disbursement can be determined between both parties subject to approval by the responsible organization of the loan extending country.

The portion of loan to cover the payment for procured equipments and materials will be disbursed on turnover basis, in principle, and against each shipment. The portion of loan to cover the payment for services rendered will be disbursed on turnover basis, in principle, at a reasonable rate, including advance payment.

Construction work contingencies are to finance the purchase of additional equipments and materials to those procured by the loan and used in the construction work. Such contingencies can be included in the project cost, if approved, in the negotiations with the loan administering organization.

2-10 Interest on Loan and Repayment of Loan

The soft loan terms will be desirable for the payment of interest accruing on loan and the repayment of loan principal.

The example plan for payment of interest and for repayment of loan principal appears in Table III-7.

2-11 Plan for Application of Fund

(1) Raising of Fund

The raising of fund is to take the following items into consideration:

o Operating Revenue

This revenue consists of the revenue from telephone, telex and telegraph services and from circuit lease for television relay.

o Introduction of Foreign Capital

The loan extended by the foreign financing organization is to supply the whole foreign currency budget required for project implementation.

o Fund on Hand

Internal fund of ARENTO is to supply the domestic currency budget required for project implementation.

(2) Application of Fund

The application of fund is to consider the following items:

o Construction Investment

This investment is the investment required for system construction by this project.

o Operating Expenses

These expenses comprise the expenses required for operation, management and maintenance of the system constructed by this project.

o Operating Capital

This capital constitutes the floating capital required for project implementation management by the responsible business entity.

o Interest Payment

This means payment of interest that accrues on loan.

o Loan Principal Repayment

This means repayment of loan principal during the stipulated repayment period.

Concrete figures for all these items are given in Table III-8 (1-3).

2-12 Analysis of Profit Ratio of Total Liabilities and Net Worth (1)

- (1) In the case of PCM digital microwave transmission system construction

<u>Year</u>	<u>Project Cost</u>	<u>Working Capital</u>	<u>Operating Expenses</u>	<u>Residual Worth of Project</u>	<u>Operating Revenue</u>	<u>Net Earnings</u>
1st	13,753	-	-	-	-	Δ13,733
2nd	6,240	-	-	-	-	Δ6,240
3rd	369	628	785	-	3,138	1,356
4th	0	41	836	-	3,345	2,468
5th	0	41	888	-	3,552	2,623
6th	0	41	940	-	3,760	2,778
7th	0	41	992	-	3,967	2,934
8th	0	41	1,044	-	4,175	3,089
9th	0	0	1,044	-	4,175	3,131
10th	0	0	1,044	-	4,175	3,131
11th	0	0	1,044	-	4,175	3,131
12th	0	0	1,044	-	4,175	3,131
13th	0	0	1,044	-	4,175	3,131
14th	0	0	1,044	-	4,175	3,131
15th	0	0	1,044	-	4,175	3,131
16th	0	0	1,044	-	4,175	3,131
17th	0	Δ835	1,044	Δ1,384	4,175	5,350

Profit Ratio of Total Liabilities and Net Worth
(Internal Rate of Return - IRR) : 10.05%

(2) Sensitivity Analysis

Sensitivity analysis is made on the assumption that when the system constructed by this project comes into operation in the future, the construction investment and operating revenue evaluations in the financial analysis will be realized in the pessimistic direction from the viewpoint of project finance.

Also on the assumption that the completion of construction work will be delayed behind schedule, sensitivity analysis is carried out.

- 1) In case where the construction investment increases by 10%:

$$\text{IRR} = 8.71\%$$

- 2) In case where the operating revenue decreases by 10%:

$$\text{IRR} = 8.51\%$$

- 3) In case where the completion of construction work is delayed by two years behind schedule:

$$\text{IRR} = 9.50\%$$

- 4) In case where the foregoing three conditions are combined at the same time:

$$\text{IRR} = 6.96\%$$

2-13 Analysis of Profit Ratio of Total Liabilities and Net Worth (2)

In case of FDM/FM transmission system construction

<u>Year</u>	<u>Project Cost</u>	<u>Working Capital</u>	<u>Operating Expenses</u>	<u>Residual Worth of Project</u>	<u>Operating Revenue</u>	<u>Net Earnings</u>
1st	15,906	-	-	-	-	Δ15,906
2nd	7,360	-	-	-	-	Δ7,360
3rd	475	628	832	-	3,138	1,203
4th	0	41	886	-	3,345	2,418
5th	0	41	932	-	3,552	2,579
6th	0	41	987	-	3,760	2,731
7th	0	41	1,032	-	3,967	2,894
8th	0	41	1,085	-	4,175	3,048
9th	0	0	1,085	-	4,175	3,090
10th	0	0	1,085	-	4,175	3,090
11th	0	0	1,085	-	4,175	3,090
12th	0	0	1,085	-	4,175	3,090
13th	0	0	1,085	-	4,175	3,090
14th	0	0	1,085	-	4,175	3,090
15th	0	0	1,085	-	4,175	3,090
16th	0	0	1,085	-	4,175	3,090
17th	0	Δ835	1,085	Δ1,714	4,175	Δ5,639

Profit Ratio of Total Liabilities and Net Worth
(Internal Rate of Return - IRR) : 7.76%

3. In-depth Study and Conclusion

The breakdown of financial expenses and revenue by items and by years during the service life of the system constructed by this project appears in Table III-8 (1-3). The IRR of this project, when calculated from those tabulated figures by the profit ratio method, stands at 10.05%.

The above IRR results from the assumption that the improvement and upgrading of transmission network in Alexandria by this project will progress according to schedule. It also presupposes the network plan based on the demand forecast made in the preceding chapter and the existing tariff system as it is after the analysis of ARENTO's financial records.

The IRR quoted above is exactly feasible, judging from the capability of project finance to maintain the working capital and the opportunity cost of project investment. It is also conditioned by the degree of credit extension from the Egyptian Government to ARENTO and the rate of yield on the Egyptian money market.

The foregoing economic calculations are based on the existing tariff system. However, the tariff raises are now being studied by the Egyptian Government and ARENTO. The tariff raises are considered to come true near future. Under the socialistic public utilities management policy of Egypt, the existing telephone service fees are regarded as being rather too cheap.

Hence, in the economic evaluation of project feasibility, the expected tariff raises have to be taken into account. The tariff raises are to be up to but not exceeding the prevailing levels in many other countries. When the basic local call message rate is raised from the existing 3 piasters per call to 4 piasters per call, the financial IRR of this project will become 14.4%. When the raise is to 5 piasters per call, the financial IRR of this project can be estimated at 18.22%.

These IRR figures are considered to be satisfactory even when the raise of interest rate on bank deposits in Egypt is considered.

The telephone demand in Alexandria district is at a very high level. However, the poor service performance cannot satisfy such brisk demand. The network improvement will lead to the service performance improvement, so that the tariff raises will not necessarily demoralize the traffic demand.

Assume that the foreign currency loan to finance the procurement of equipments and materials required for project implementation be available at the interest rate of 3.5% per annum and with the grace period of 10 years. Then, the net profit to net worth ratio of ARENTO will be 85%. Meanwhile, the foreign currency loan mentioned above fills 91% of the total project cost. Thus, from the angle of ARENTO's procurement fund, this project can be evaluated as being feasible.

The present capability of ARENTO to procure its own fund on hand is indicated in Table III-8(3).

The anticipated project investment deficits are:

Initial year: LE 1,136,000
Second year: LE 1,684,000

It will be necessary for ARENTO to be prepared for fund-raising from external source for the purpose of implementation of this project.

Considering the politico-economic structure of Egypt with emphasis on welfare administration, the governmental subsidies assume a great importance for the furtherance of sound running of public enterprises including ARENTO. In this economic evaluation of project feasibility, however, the subsidy which ARENTO receives is not counted as project benefit.

The foregoing in-depth study arrives at a conclusion that, to improve the earning power of this project and thereby make this project more profitable, it is desirable that the existing tariff system be reconsidered and reorganized. It can also be said that ARENTO, by taking full advantage of the subsidy from the Treasury so as to promote the project implementation as desired, can make this project much more feasible. The transmission system to be realized by this project is a prime requisite, from the economic viewpoint also, for the completion of local telephone network in Alexandria.

Already, in Cairo district, the PCM radio transmission system is being introduced in order to improve and upgrade the existing network.

In order that Cairo and Alexandria, the co-centers of commercial and industrial, as well as diplomatic, activities of Egypt, will enhance their mutual proximity through the improvement of telephone service, and, as the result, the production activities as a whole will pull up further momentum, it is recommendable that this project be implemented by means of long-term, low-interest loans and investments, including a loan from abroad.

TABLE PART-III

Table III-1	Project Cost
Table III-2	Disbursement Schedule
Table III-3	Working Capital & Project Salvage Value
Table III-4	Operating Expenses
Table III-5	Telephone Tariffs
Table III-6	Operating Revenue
Table III-7	Interest Payment and Loan Repayment Schedule
Table III-8	Cash Flow (1), (2), (3)

Table III-1

Project Cost

(Unit: LE 1,000)

	Foreign Portion	Local Portion	Total
Radio Eq.	1,990	-	1,990
Antenna	118	-	118
Tower	398	-	398
Carrier Eq.	8,042	-	8,042
Power Supply Eq.	566	-	566
Test Eq.	143	-	143
Spares	267	-	267
Installation Materials	2,582	-	2,582
Total	14,106	-	Σ 14,106
Training	89	3	92
Operation/Maintenance	143	45	188
Installation	2,220	1,046	3,266
Consultancy Services	331	146	477
	16,889	-	Σ 18,129
Contingency	1,670	137	1,807
			Σ 19,936
Civil Work	-	406	406
Grand Total	18,559	1,783	20,342

Table III-2

Disbursement Schedule

(Unit: LE 1,000)

		1982	1983	1984	Total
Equipment Portion	F*	11,285	2,821	-	14,106
	L	-	-	-	-
Training	F	79	10	-	89
	L	-	3	-	3
Operation & Maintenance	F	-	-	143	143
	L	-	-	45	45
Installation	F	222	1,998	-	2,220
	L	105	941	-	1,046
Consultancy Service	F	132	199	-	331
	L	58	88	-	146
Contingency	F	1,336	167	167	1,670
	L	110	13	14	137
Civil Work	F	-	-	-	-
	L	406	-	-	406
Total	F	13,054	5,195	310	18,559
	L	679	1,045	59	1,783
Ground Total		13,733	6,240	369	20,342

* F : Foreign Portion

L : Local Portion

Table III-3

Working Capital & Project Salvage Value

(Unit: LE 1,000)

<u>Period (Year)</u>	<u>Working Capital</u>	<u>Project Salvage Value</u>
1	-	-
2	-	-
3	628	-
4	41	-
5	41	-
6	42	-
7	41	-
8	42	-
9	0	-
10	0	-
11	0	-
12	0	-
13	0	-
14	0	-
15	0	-
16	0	-
17	△835	△1,384

Table III-4

Operating Expenses

(Unit: LE 1,000)

<u>Period (Year)</u>	<u>Operating & Administrative Expenses</u>	<u>Maintenance Expenses</u>	<u>Total Operating Expenses</u>
1	-	-	-
2	-	-	-
3	670	115	785
4	699	137	836
5	741	147	888
6	778	162	940
7	810	182	992
8	842	202	1,044
9	842	202	1,044
10	842	202	1,044
11	842	202	1,044
12	842	202	1,044
13	842	202	1,044
14	842	202	1,044
15	842	202	1,044
16	842	202	1,044
17	842	202	1,044

Table III-5

Telephone Tariffs

1. Domestic Telephone Tariff Rate System

(1) Installation Charge

- | | |
|--|--------|
| 1. Large Scale Company and Bank | LE 150 |
| 2. Small Scale Company and Small Shop | LE 100 |
| 3. Residence, Doctor, Government Office,
Engineer Office, Lawyer Office, etc. | LE 50 |

(2) Subscription Charge

All telephone subscribers LE 18/year

(3) Local Call Charge (Excess Call Charge Type)

The number of free calls:

- | | |
|---|-------------|
| 1. Residence | 1,500 calls |
| 2. Government Office | 1,000 calls |
| 3. Business Office
(large scale and small scale) | 300 calls |

LE 0.03/call in excess of the above number of calls.

No telephone speech time limitations to LE 0.03 of charge on local call.

(4) Deposit

LE 2/year for each categories of subscribers with excess calls over the number of free calls.

(5) Trunk Call Charge

<u>Distance</u> <u>(Km)</u>	<u>Daytime</u> <u>8:00-19:00</u>	<u>Night Time</u> <u>19:00-8:00</u>
0-25	LE 0.03	LE 0.03
26-50	0.05	0.03
51-75	0.10	0.05
76-100	0.10	0.05
101-125	0.15	0.10
126-150	0.15	0.10
151-175	0.20	0.15
176-200	0.20	0.15
201-250	0.25	0.20
251-300	0.25	0.20
301-500	0.35	0.30
500-	0.35	0.30

(6) For Telephone Subscribers in Manual Board Exchange Area

- i) Installation Charge LE 50
- ii) Subscription Charge 21-27/year
 - LE 27 : Cairo & Alexandria
 - 21 : Other City
 - 15 : For the area where telephone operators working time is less than 14 hours/day
- iii) Excess Call Charge : N.A.

2. International Telephone Tariff Rate Systems

In case of connection to the international principal overseas cities from Cairo:

		<u>First 3 minutes</u>	<u>Succeeding 1 minute</u>
1	London	LE 6.135	LE 2.045
2	Kuwait	5.025	1.675
3	New York	7.680	2.560
4	Tokyo	12.540	4.100

Table III-6

Operating Revenue

(Unit: LE 1,000)

<u>Period (Year)</u>	<u>Domestic</u>	<u>International</u>	<u>Total</u>
1	-	-	-
2	-	-	-
3	2,307	831	3,138
4	2,460	885	3,345
5	2,613	940	3,553
6	2,765	995	3,760
7	2,917	1,050	3,967
8	3,070	1,105	4,175
9	3,070	1,105	4,175
10	3,070	1,105	4,175
11	3,070	1,105	4,175
12	3,070	1,105	4,175
13	3,070	1,105	4,175
14	4,070	1,105	4,175
15	3,070	1,105	4,175
16	3,070	1,105	4,175
17	3,070	1,105	4,175

Table III-7

Loan Interest Payment & Loan Principal Repayment Schedule

(Unit: LE 1,000)

Period (Year)	Foreign Loan	Cumulative Foreign Loan	Repayment of Foreign Loan	Cumulative Instalment	Balance of Foreign Loan	Interest Payment
1	13,054	13,054	-	-	13,054	457
2	5,195	18,249	-	-	18,249	639
3	310	18,559	-	-	18,559	650
4	-	-	-	-	18,559	650
5	-	-	-	-	18,559	650
6	-	-	-	-	18,559	650
7	-	-	-	-	18,559	650
8	-	-	-	-	18,559	650
9	-	-	-	-	18,559	650
10	-	-	-	-	18,559	650
11	-	-	928	928	17,631	617
12	-	-	928	1,856	16,703	585
13	-	-	928	2,784	15,775	552
14	-	-	928	3,712	14,847	520
15	-	-	928	4,640	13,919	487
16	-	-	928	5,568	12,991	455
17	-	-	928	6,496	12,063	422
18	-	-	928	7,424	11,135	390
19	-	-	928	8,352	10,207	357
20	-	-	928	9,280	9,279	325
21	-	-	928	10,208	8,351	292
22	-	-	928	11,136	7,423	260
23	-	-	928	12,064	6,495	227
24	-	-	928	12,992	5,567	195
25	-	-	928	13,920	4,639	162
26	-	-	928	14,848	3,711	130
27	-	-	928	15,776	2,783	97
28	-	-	928	16,704	1,855	65
29	-	-	928	17,632	928	32
30	-	-	928	18,560	0	0

12,466

Table III-8

Cash Flow Statement (1)
Cash Inflow

(Unit: LE 1,000)

<u>Period (Year)</u>	<u>Operating Revenue</u>	<u>Foreign Loan</u>	<u>Total Cash Inflow</u>
1	-	13,054	13,054
2	-	5,195	5,195
3	3,138	310	3,448
4	3,345	-	3,345
5	3,553	-	3,553
6	3,760	-	3,760
7	3,967	-	3,967
8	4,175	-	4,175
9	4,175	-	4,175
10	4,175	-	4,175
11	4,175	-	4,175
12	4,175	-	4,175
13	4,175	-	4,175
14	4,175	-	4,175
15	4,175	-	4,175
16	4,175	-	4,175
17	4,175	-	4,175

Cash Flow Statement (2)
Cash Outflow

(Unit: LE 1,000)

Period (Year)	Investment in Fixed Assets	Investment in Current Assets	Operat- ing Expenses	Repayment of Foreign Loan	Interest on Foreign Loan	Total Cash Outflow
1	13,733	-	-	-	457	14,190
2	6,240	-	-	-	639	6,879
3	369	628	785	-	650	2,432
4		41	836	-	650	1,527
5		41	888	-	650	1,579
6		42	940	-	650	1,632
7		41	992	-	650	1,683
8		42	1,044	-	650	1,736
9		0	1,044	-	650	1,694
10		0	1,044	-	650	1,694
11		0	1,044	928	617	2,589
12		0	1,044	928	585	2,557
13		0	1,044	928	552	2,524
14		0	1,044	928	520	2,492
15		0	1,044	928	487	2,459
16		0	1,044	928	455	2,427
17		Δ835	1,044	928	422	1,559

Residual Repayment of Foreign Loan : 12,064

Residual Interest on Foreign Loan : 2,532

Cash Flow Statement (3)
Net Cash Flow

(Unit: LE 1,000)

<u>Period (Year)</u>	<u>Net Cash Flow</u>
1	Δ1,136 (*)
2	Δ1,684
3	1,016
4	1,818
5	1,974
6	2,128
7	2,284
8	2,439
9	2,481
10	2,481
11	1,588
12	1,618
13	1,651
14	1,683
15	1,716
16	1,748
17	2,616

(*) The deficits in the initial and second years amounting to LE 1,136,000 and LE 1,684,000, respectively, are to be covered by the government funds.



