PART 7

FINANCIAL ANALYSIS AND SOCIAL APPRAISAL

7. FINANCIAL ANALYSIS AND SOCIAL APPRAISAL

7-1 Financial Analysis

This project is to be operated as a profit-making entity run by a special body which is financially independent from ERTU. As such, it is important in this financial analysis to clarify whether or not this operating body has the ability to continue operations which are financially sound.

The target of analysis is the New TV Center which is to be constructed under this project. The analysis will not delve into the financial state of ERTU as a whole.

The evaluation covers the period beginning in 1987, when the implementation scheme is to be initiated, and terminating in 2015.

Approximately three years after the start of Phase I, a portion of the project facilities are scheduled to be completed and services are to be inaugurated. Three years after the start of Phase II, all facilities are to be completed and full-scale operations to begin.

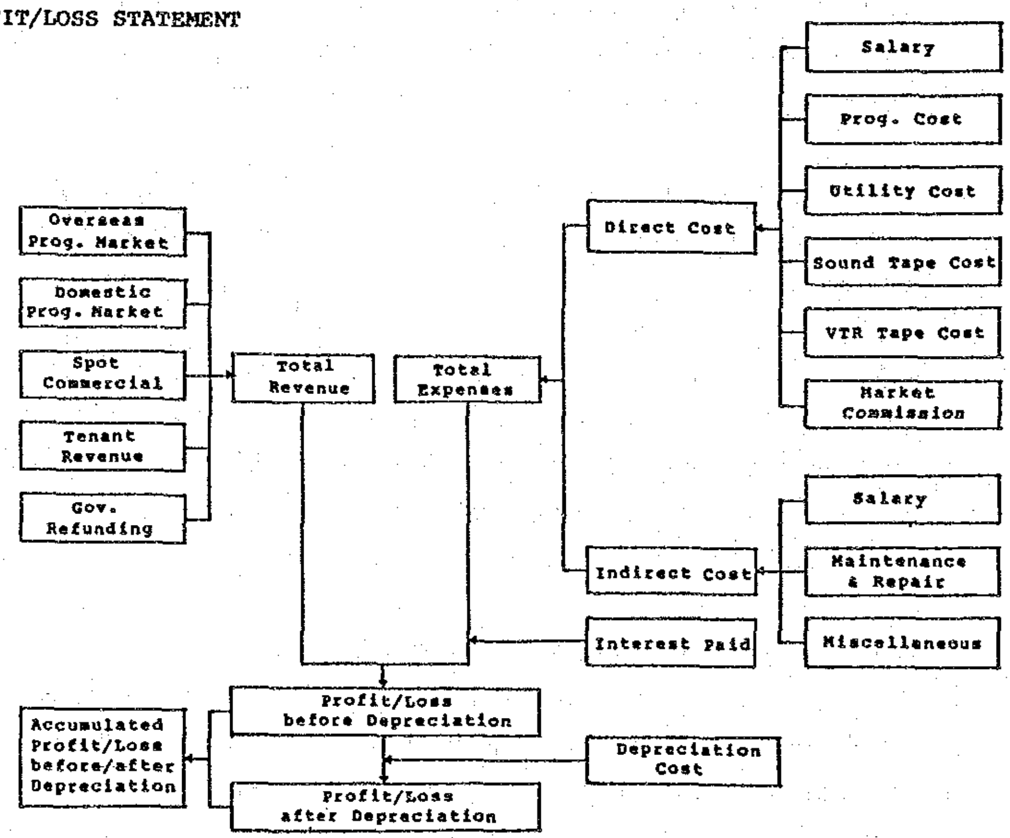
The target of this financial analysis is to consist of the project in its entirety, that is, Phases I and II combined. A supplementary analysis will also be performed for Phase I alone, under the assumption that the first phase of the project will be given priority in view of the project's urgency and scope of construction. It is also assumed that a financial evaluation of the first phase will be required by lending institutions and other related authorities.

7-1-1 Model of Analysis

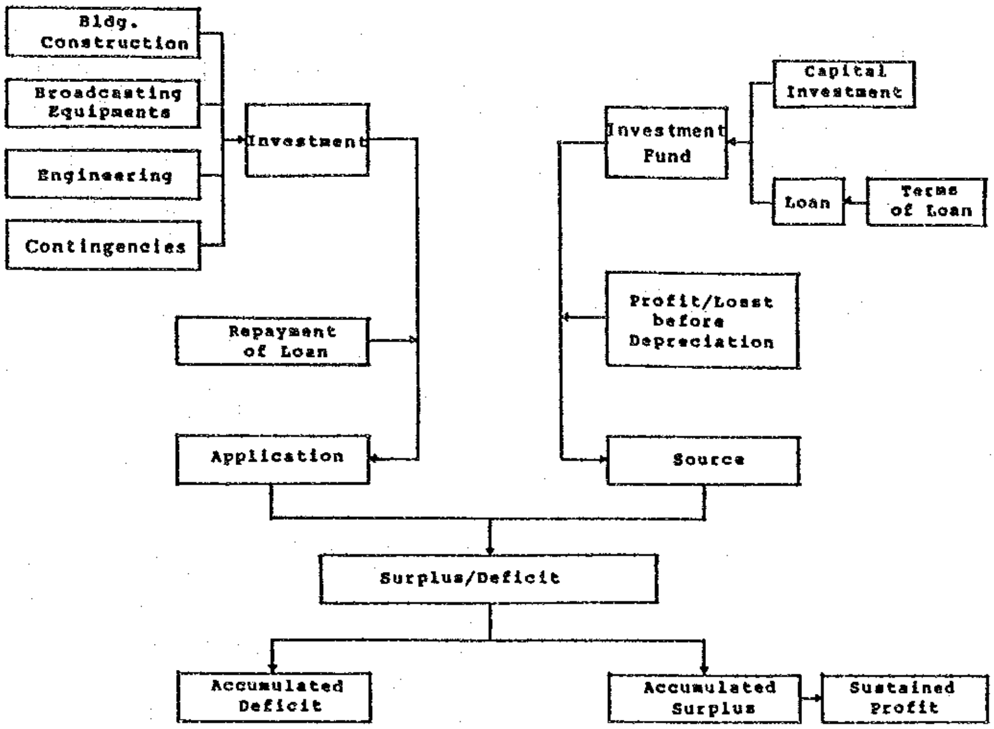
The structure of the model which will be used in this financial analysis is shown in Fig. 7-1. The evaluation indicators which will be applied include pro-forma cash flow table, pro-forma profit and loss statement, pro-forma source and application table and other financial tables, as well as the financial internal rate of return.

FIG. 7-1 PROCEDURE OF FINANCIAL ANALYSIS

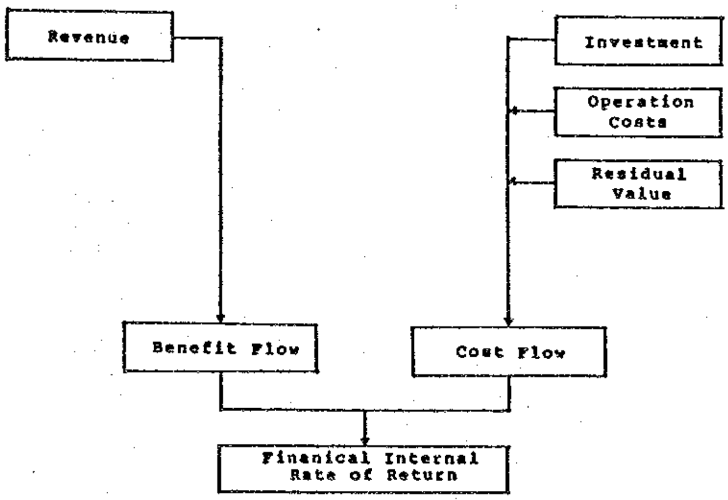
PROFIT/LOSS STATEMENT



SOURCE AND APPLICATION



CASH FLOW



7-1-2 Construction Cost

(1) Initial Investment

The total cost of the project, including the contingencies was estimated below. All costs were estimated at 1985 constant prices without inflation. The detailed breakdown is illustrated in Table 7-1.

	Foreign (Million US$)	Local (Million L.E.)	Total (Million L.E.)
Phase I	86.750	53.700	166.476
Phase II	43.250	14.314	70.538
Total	130.000	68.014	237.014

Land costs are not included in the project cost, since land for the project has already been acquired with assistance from the Egyptian Government. It is, therefore, not calculated into the residual value for the last year under analysis.

Table 7-1 CONSTRUCTION COST FOR NEW TV CENTER

(at 1985 constant prices)

Item	F/C (M.US$)	L/C (M.L.E.)	Total (M.L.E.)
Phase I			
1. Building Construction	42.367	48.302	103.379
2. Broadcasting Facilities	34.752	0.364	45.542
3. Engineering Fee	5.500	0.153	7.303
4. Contingencies	4.131	4.881	10.252
Sub-total	86.750	53.700	166.476
Phase II			
1. Building Construction	13.338	12.669	30.008
2. Broadcasting Facilities	25.302	0.286	33.178
3. Engineering Fee	2.550	0.058	3.373
4. Contingencies	2.069	1.301	3.979
Sub-total	43.250	14.314	70.538
Total			
1. Building Construction	55.705	60.971	133.387
2. Broadcasting Facilities	60.054	0.650	78.720
3. Engineering Fee	8.050	0.211	10.676
4. Contingencies	6.191	6.182	14.231
Total	130.000	68.014	237.014

Exchange rate: US$ 1.0 = 1.3 L.E.

(2) Investment Schedule

The investment by each year is made as shown in Table 7-2 (1), which is based on the implementation schedule. The construction cost in Part 6 was estimated at 1985 constant prices. For the evaluation purpose, this construction cost (breakdown to each year) was used. As a reference, if the inflation rate of 13% for the local currency portion and 4% for the foreign currency portion is applied, the required investment is as shown in Table 7-2 (2).

Table 7-2 INVESTMENT SCHEDULE OF NEW TV CENTER

Unit: Foreign :Million US$
Local : Million L.E.

Year	(1) 1985 prices		(2) With Inflation	
	F/C	L/C	F/C	L/C
1987	2.621	0.067	2.835	0.086
1988	33.443	21.292	37.619	30.722
1989	25.083	15.971	29.344	26.040
1990	25.603	16.370	31.150	30.161
1991	1.218	0.025	1.541	0.052
1992	16.705	5.588	21.983	13.146
1993	12.530	4.194	17.148	11.150
1994	12.797	4.507	18.214	13.539
Phase I Total	86.750	53.700	100.947	87.009
Phase II Total	43.250	14.314	58.886	37.887
Grand Total	130.000	68.014	159.833	124.896

(3) Facility Renewal Costs

Equipment and facilities which are provided under the project must be replaced after their service life has been exhaused. This holds true for nearly all equipment for the program production, electricity, air-conditioning and sanitation facilities. The outlays required each year for such replacements are shown in Table 7-3.

Table 7-3 FACILITY RENEWAL COSTS

Unit: Million L.E.at 1985 prices

Year	Amount	Breakdown	
		Production Equipment	Electrical Facility, etc
2000	36.434	36.434	
2001			
2002			
2003			
2004	26.542	26.542	
2005			
2006			
2007			
2008			
2009			
2010	59.329	36.434	22.895
2011			
2012			
2013			
2014	32.935	26.542	6.393
2015			

7-1-3 Estimated Operating Costs

(1) Cost Items

The operating expenses of the New TV Center have been calculated in two categories: "direct expenses" which are directly required in program production, and "indirect expenses."

Among cost items of direct expenses, program costs occupy the largest portion, and other expenses are further broken down into wages of operational divisions, utility costs such as electricity, sound tape costs, VTR tape cost for program sale and sales commissions relating to program domestic marketing. Indirect expenses divide into wages for administrative staff, maintenance and repair costs and miscellaneous expenses. Depreciation costs are not treated as expenses for the purpose of the benefit/cost analysis.

(2) Calculation of Operating Expenses

The above-mentioned costs of operation were calculated as shown in Table 7-4 (at 1985 constant prices). The assumptions will be explained hereunder.

Table 7-4 OPERATING COSTS OF NEW TV CENTER

(Unit: 1,000 L.E. at 1985 prices)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1)Direct Cost	8199	8285	8414	8559	14050	14265	14402	14581	14782	15003
-Direct Personnel Wage	2673	2673	2673	2673	4402	4402	4402	4402	4402	4402
-Programming Cost	4634	4634	4634	4634	7984	7984	7984	7984	7984	7984
-Utility Cost	282	282	282	282	360	360	360	360	360	360
-Sound Tape Cost	25	0	0	0	0	25	0	0	0	0
-VTR Tape Cost	533	637	757	892	1215	1392	1539	1700	1881	2079
-Marketing Commission	52	59	68	78	89	102	117	135	155	178
2)Indirect Cost	2056	2061	2067	2074	2956	2967	2973	2982	2992	3003
-Management Personnel Wage	222	222	222	222	222	222	222	222	222	222
-Maintenance and Repair	1346	1346	1346	1346	1924	1924	1924	1924	1924	1924
-Miscellaneous Cost	488	493	499	506	810	821	827	836	846	857
TOTAL	10255	10346	10482	10634	17006	17231	17375	17563	17774	18007

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1)Direct Cost	15279	15254	15254	15254	15254	15279	15254	15254	15254	15254
-Direct Personnel Wage	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402
-Programming Cost	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984
-Utility Cost	360	360	360	360	360	360	360	360	360	360
-Sound Tape Cost	25	0	0	0	0	25	0	0	0	0
-VTR Tape Cost	2303	2303	2303	2303	2303	2303	2303	2303	2303	2303
-Marketing Commission	205	205	205	205	205	205	205	205	205	205
2)Indirect Cost	3017	3016	3016	3016	3016	3017	3016	3016	3016	3016
-Management Personnel Wage	222	222	222	222	222	222	222	222	222	222
-Maintenance and Repair	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924
-Miscellaneous Cost	871	870	870	870	870	871	870	870	870	870
TOTAL	18296	18270	18270	18270	18270	18296	18270	18270	18270	18270

	2011	2012	2013	2014	2015
1)Direct Cost	15279	15254	15254	15254	15254
-Direct Personnel Wage	4402	4402	4402	4402	4402
-Programming Cost	7984	7984	7984	7984	7984
-Utility Cost	360	360	360	360	360
-Sound Tape Cost	25	0	0	0	0
-VTR Tape Cost	2303	2303	2303	2303	2303
-Marketing Commission	205	205	205	205	205
2)Indirect Cost	3017	3016	3016	3016	3016
-Management Personnel Wage	222	222	222	222	222
-Maintenance and Repair	1924	1924	1924	1924	1924
-Miscellaneous Cost	871	870	870	870	870
TOTAL	18296	18270	18270	18270	18270

Utility costs for the first 4 years calculate about 78% of 5th years onwards.

a. Wages of Operational Divisions

The basis on which personnel costs were calculated is described in Table 7-5. The wages were assumed considering the average wage of the Cairo TV Center and the working conditions of the New TV Center.

Table 7-5 WAGES OF NEW TV CENTER (OPERATIONAL DIVISIONS)

Unit: 1,000 L.E. at 1985 constant prices

Personnel	Yearly Wage	No. of Employee	Amount
FIRST 4 YEARS OF OPERATION			
1. Supervisor	4,800	194	931
2. Employee	1,800	968	1,742
Sub-total		1,162	2,673
5TH YEAR ONWARDS			
1. Supervisor	4,800	244	1,171
2. Employee	1,800	1,795	3,231
Sub-total		2,039	4,402

Supervisor: personnel working for Program Production Div. and Engineering Div.
Employee : personnel working on contract base included

b. Program Costs

Program costs would vary according to each program, however it is generally, composed of performances fees, fees for authors, and scriptwriters, and materials costs such as art costs, etc. The average program costs reported by ERTU were used in this estimation as shown in Table 7-6.

During the first 4 years of operation (Phase I hereafter), the resulting costs are 4.6 million L.E. per year; beginning with the fifth year, costs rise to 8.0 million L.E. per year.

Table 7-6 PROGRAM COSTS

(Unit: 10^3 L.E. at 1985 constant prices)

Program	Cost/Prog. (L.E.)	First 4 Years		5th Year Onwards	
		No.of Prog.	Amount	No.of Prog.	Amount
1. General Program					
1) Children's Program	2,000	250	500	250	500
2) School Education Prog.	500	500	250	1,000	500
3) Teacher's Program	500	300	150	300	150
4) Sophisticated Cultural Program	500	-	-	300	150
5) Language & Vocational Prog.etc.	500	600	300	900	450
6) Short Prog.	80	300	24	300	24
Sub-total			1,224		1,774
2. Drama and Variety					
1) Morning Serials	3,500	300	1,050	300	1,050
2) Evening Serials	5,200	-	-	300	1,560
3) Special Drama	10,000	100	1,000	200	2,000
4) Special Drama	16,000	50	800	50	800
Sub-total			2,850		5,410
3. Spot Advertising	2,000	280	560	400	800
Total			4,634		7,984

c. Utility Costs

(i) Power Costs

The quantity of power to be consumed by the New TV Center per year, estimated according to the basic design, was calculated approximately, 10,800,000 kwh (30,000 kwh per day.) The annual power cost for Phase II comes to approximately 321,000 L.E. when applying the prevailing power charge scheme which are divided into contract base fee (17 L.E./MW) and consumption base costs (0.015 L.E./kWh).

(ii) Water Costs

The amount of water used by the New TV Center's employees and guests was estimated 286,000 m^3 per year. When the water cost rates currently in use (0.1 L.E. per cubic meter) are applied, the annual water charge for Phase II calculates to approximately 29,000 L.E.

(iii) Communications Expenses

The number of telephone calls made per day was assumed to be 1,000; the annual number, therefore, tallied at 360,000 calls. Using the telephone rates (0.01 pound/call), the annual telephone charge thus comes to 3,600 L.E. for Phase II. Other communication expenses such as telex, etc. are actually generated. Therefore, total communication expense are estimated to each around 10,000 L.E. per year. This does not include calls made from the Center's restaurant or public phones.

(iv) Fuel Costs

Fuel (LPG) costs are not included in the operation costs since fuel are mainly used for the restaurants and coffee shop, and accordingly they shall be born by the private tenants.

d. Sound Tape Costs, etc.

The purchase costs of sound tapes and sound disc libraries are calculated as production assistance materials. Based on past records for ERTU, the purchase volumes are to be 500 hours for each item. Using unit prices of 30LE/hr for sound tapes and 20LE/hr for sound disc libraries, related costs tally to 25,000LE per year. Additional purchases of both sound tapes and sound disc libraries are necessary every five years.

e. VTR Tape Costs

Costs relating to program marketing consist of the costs of VTR tape (1-inch VTR tape, primarily used for overseas marketing) and VTR cassettes (chiefly U-matic, for domestic marketing). Again relying on past records for ERTU, the unit buying price for VTR tapes is 72LE/hr and 25LE/unit for VTR cassettes. The annual costs are calculated by mutiplying the estimated number of hours of programming or the number of units.

f. Sales Commissions

Sales commissions paid to sales agents relating to the sales of video cassettes in home are figured at 4.5 L.E. per unit, the sales condition presented by ERTU.

g. Wages of Administrative Staff

The basis for calculating administrative personnel wages is shown in Table 7-7. The wages were assumed on the same basis as explained in the wages of operational divisions.

Table 7-7 WAGES OF NEW TV CENTER (ADMINISTRATIVE STAFF)

Unit: 1,000 L.E. at 1985 constant prices

Personnel	Yearly Wage	No. of Employee	Amount
1. Supervisor	4,800	29	139
2. Employee	1,800	46	83
Total		75	222

Administrative staff: personnel working for Administration Div. and other management staff

h. Maintenance and Repair Costs

Maintenance and repair costs refer to costs incurred to inspect, adjust, repair and carry out parts replacement in the facilities in order to maintain them at their original level of functioning order throughout their specified service life. Accordingly, labor and material costs which are directly necessary to this purpose are included into the maintenance and repair costs.

In the case of the project at hand, annual maintenance and repair costs for the program production facilities have been set at 1% of the construction cost; for the building, 1% of the construction cost; and for electrical, air-conditioning and sanitary facilities, 1.5% of related construction costs. These figures have been selected in consideration of the facilities and design standards to be applied for the project, also taking into consideration the maintenance and repair costs incurred in similar projects.

i. Miscellaneous Expenses

Miscellaneous expenses shall include, for example, office-related expendable, transportation costs, etc. Here, the miscellaneous costs was calculated as 5% of above-mentioned items a - h.

7-1-4 Revenue of New TV Center

(1) Types of Income

The project is expected to generate income in the five categories listed below, and no other income is included. In actual fact, other(*1) forms of income are generated they have been excluded, however, because of the difficulty in calculating them as income for the project or because of the extremely small percentage which such incomes are expected to contribute to the overall needs of the project.

1. Overseas program marketing
2. Domestic program marketing
3. Spot advertising production
4. Rentals of restaurant and coffee shop
5. Government refunding

(*1): Miscellaneous income generated at the existing Cairo Broadcasting Center includes studio rental income, etc. It is conceivable that income of this type will also be generated at the New TV Center in the form of studio rentals to outside advertising agencies.

(2) Calculation of Income

Table 7 - 8 shows the estimated income of the New TV Center for the above types of income based on the assumptions indicated below. All figures are given on a real term basis (1985 prices) without adjustment for inflation.

The largest component among the New TV Center's various forms of income is income derived from program marketing overseas. In 1995, such income is to account for 66% of the total. Government refundings relating to the production of general programming accounts for 27% of all income. Together, therefore, these two categories comprise 93% of the projet's overall income.

Table 7-8 OPERATING INCOME OF NEW TV CENTER

(Unit: 1,000 L.E. at 1985 prices)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1)Marketing Program Overseas	8577	10771	13294	16094	25225	28857	31027	33272	35668	38165
2)Marketing Program Domestic	518	594	680	779	891	1022	1175	1350	1553	1782
3)Spot Advertising	1120	1120	1120	1120	1600	1600	1600	1600	1600	1600
4)Rentals of Restaurant etc.	36	36	36	36	36	36	36	36	36	36
5)Government Refunding	8308	7558	6964	6493	10430	9660	9049	8564	8180	7877
TOTAL	18558	20079	22093	24522	38182	41176	42887	44822	47037	49460

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1)Marketing Program Overseas	40814	40814	40814	40814	40814	40814	40814	40814	40814	40814
2)Marketing Program Domestic	2048	2048	2048	2048	2048	2048	2048	2048	2048	2048
3)Spot Advertising	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
4)Rentals of Restaurant etc.	36	36	36	36	36	36	36	36	36	36
5)Government Refunding	9974	9298	8762	8337	9700	9082	8590	8200	7890	7644
TOTAL	54472	53796	53260	52835	54199	53580	53088	52698	52388	52142

	2011	2012	2013	2014	2015
1)Marketing Program Overseas	40814	40814	40814	40814	40814
2)Marketing Program Domestic	2048	2048	2048	2048	2048
3)Spot Advertising	1600	1600	1600	1600	1600
4)Rentals of Restaurant etc.	36	36	36	36	36
5)Government Refunding	9852	9201	8685	8276	9700
TOTAL	54350	53699	53183	52774	54199

a. Conditions of Income Calculation

In calculating the operating income of the New TV Center, the following conditions are applied:

- With regard to the marketing volume or number of commercial spots to be produced, rather than carry out its own forecast the Study Team has based its estimations in general on the plans announced by ERTU. The Study Team examined the appropriateness of the estimated sales volume. The conditions underlying this estimation are summarized in Table 7 - 9.

- As for fluctuations in selling prices, in this analysis, it is estimated that 1985 prices are maintained in real term. Namely future prices are set in accordance with inflation.

- As for the commencement of operation, one year would be used for preparation (formation of project consensus, capital procurement, etc.), forteen months for detailed design and tender documentation, and thirty five months for Phase I construction. Therefore, if the project is followed immediately by the above procedure, the operation would start in 1991. In addition, if the Phase II design starts immediately after the Phase I operation, full operation of the whole facilities would commence in 1995, considering the thirty months of the Phase II construction.

Table 7-9 OUTLINE OF CALCULATING REVENUE

Item	Product	Market	Marketing Amount 1991	Marketing Amount 1995	Marketing Price (1985 prices)	Marketing System
1. Market Prog. (Overseas)	VTR tape -Drama -Variety -Cultural Prog. etc.	-Overseas station in Arab world (17 countries) -African and Advanced countries (about 10 countries)	3,400 hrs -Drama: 2,346 hrs -Variety: 204 -Cultural: 850 Prog. etc.	10,000 hrs -Drama: 6,900 hrs -Variety: 600 hrs -Cultural: 2,500 hrs Prog. etc.	Drama: LE2,850/hr variety: LE2,600/hr Cultural Prog.: LE1,600/hr	Direct Sale
2. Market Prog. (Domestic)	VTR cassette -Drama -Variety -Others	Individual consumers	11,500 units (increase 15% pa)		LE45/unit	Sale through Agency Shop
3. Spot Commercial	Spot Ad. for TV	Advertisers (public & private)	280 spots	400 spots	LE4,000/spot	Direct Sale
4. Tenant Income	Restaurant and Coffee shop	Tenants			LE36,000/Y	
5. Government Refunding	General Prog. -Children's Prog. -School Education Prog. -Teacher's Prog. -Cultural Prog. -Language Prog. etc. -Short Prog.	-Min. of Education -Min. of Higher Education -Min. of Culture -Min. of Information	880 hrs -Children's Prog. : 125 hrs -School Education : 250 hrs -Teacher's Prog. : 175 hrs -Language Prog., etc.: 300 hrs -Short Prog. : 30 hrs	1,500 hrs -Children's Prog.: 125 hrs -Teacher's Prog. : 175 hrs -Cultural Prog. : 225 hrs -School Education Prog.: 500 hrs -Language Prog. etc.: 450 hrs -Short Prog.: 30 hrs	Direct costs, Indirect costs, and Depreciation shall be refunded.	by agreement with the Ministries

b. Items for Consideration when Estimating Project Income

(i) Overseas Program Marketing

According to sales records for 1984/85, approximately 5,300 hours of programming was sold overseas. This included some 4,700 hours (or approximately 88% of the total) sold to the Arab nations of the Middle East and Africa. It is essential, therefore, to take this area into consideration when estimating overseas sales. For the purposes of this project, the feasibility of achieving sales targets in the following 17 countries is considered; all of these countries have previous purchasing records as of 1984/85.

- United Arab Emirates
- Iraq
- Qatar
- Saudi Arabia
- Bahrain
- Jordan
- Algeria
- Tunisia
- Mauritania
- North Yemen
- Oman
- Kuwait
- Syria
- South Yemen
- Lebanon
- Sudan
- Morocco

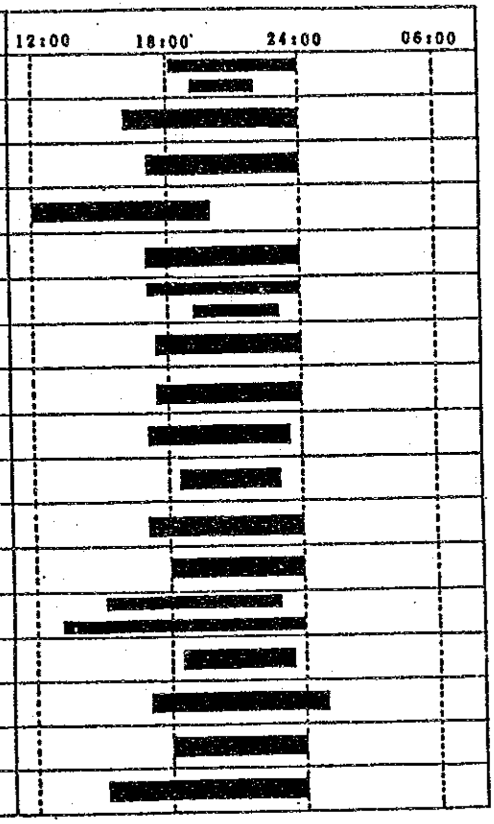
Qualitative Analysis

According to recent data(*2), there are 24 television broadcast channels operating in the 17 countries just listed. Nearly all of these channels are run by their respective governments, and it is these channels which are the major targets for program marketing by the New TV Center. Here, then, the prospects for future programming at these television stations will be considered, in order to analyze in qualitative terms the feasibility of attaining the sales target set for the New TV Center. This qualitative analysis will later be tied in with the quantitative analysis to be described below.

(*2): "World Radio and Television, 1984" compiled by the Japan Broadcasting Corporation -- NHK

FIG. 7-2 BROADCASTING HOUR AT EACH STATION WITHIN ARAB WORLD

Station Name	No. of Channel
1. United Arab Emirates Radio & Television	2
2. San'a Television	1
3. Iraqi Broadcasting & Television Establishment	2
4. Oman Department of Broadcasting & Television	1
5. National Radio & Television Service of Qatar	1
6. Kuwait Broadcasting & Television Services	2
7. Saudi Arabian Radio & Television	1
8. Syrian Broadcasting & Television Organization	1
9. Bahrain Television	2
10. Democratic Yemen Broadcasting Services	1
11. Jordan Television Corporation	2
12. Tele-Liban	3
13. Radiodiffusion Television Algerienne	1
14. Sudan Television Services	1
15. Radiofiffusion Television Tunisienne	1
16. Radiodiffusion-Television Morocaine	1
17. Agence Mauritanienne de Television et de Cinema	1



Most of the broadcasting stations referred to above were opened in the 1960s and 1970s, and most operate under governmental supervision. These governments not only view these stations as important means of transmitting information, but also as effective means for achieving national modernization, popular integration, improved living standards and widespread education. For this reason, remarkable progress has been seen since these stations were inaugurated in terms of expanding broadcast hours, increasing the number of channels, and increasing the number of television sets in operation. Particularly since about 1980, the Arab nations, supported by abundant petroleum income, have carried out extensive expansion and improvement of their broadcast facilities and broadcast networks.

It should be noted, however, that when the broadcasting situations in these regions are compared with the levels in Egypt and the advanced industrialized nations, they reveal extremely shorter broadcasting hours. In terms of TV broadcasting time, the existing channels in these regions broadcast only about one-third the number of hours per day compared with channels in the advanced industrialized nations, and no more than half the number of hours of broadcasting in Egypt. It must be remembered, however that the comparatively short TV broadcasting time in the Arab nations relates directly to Arab lifestyles and customs, and it is rather unreasonable at this point of time to assume that future broadcasting time will be expanded to the same level as the advanced industrialized nations. Even so, there is a great possibility, in view of the importance placed on broadcasting in the Arab nations, that the number of broadcasting hours at existing channels will be increased and that the establishment of additional channels in these nations will lead to increased broadcasting hours also.

As shown in Table 7 - 10, ERTU's sales records have demonstrated remarkable growth in recent years. Between 1981/82 and 1984/85 there was approximately 120% growth scored in terms of program hours sold, with the annual rate of increase exceeding 30%. This growth can be attributed to ERTU's efforts to expand overseas marketing as a major factor in the acquisition of foreign currency. And while the high growth was due in large part to new market development in Mauritania and other nations and to reopened markets in Iraq and Algeria, it is impossible to deny that the program production capability in the Arab nations is basically low. NHK's data, for example, shows that the ratios of programming produced domestically in major Arab countries were as follows:

- Qatar: 40%
- Kuwait: 60%
- Jordan: 40%

Table 7-10 DEVELOPMENT OF MARKETING HOURS

Year	Marketing Hours
1981/82	2,335
1982/83	3,685
1983/84	4,430
1984/85	5,238

Egypt, by way of contrast, is relatively well equipped in terms of technical facilities for television program production and studios, and its rate of domestic program production is relatively high. Accordingly, when the Arab nations with low rates of domestic production import

Arabic-language programs, they naturally must rely quite heavily on Egypt. In Kuwait, for example, 40% of all programming is purchased from outside the nation, including approximately 20% imported from Egypt. Similarly, Jordan and Tunisia purchase about 30% and 27%, respectively, of their programming from Egypt.

In summary, although the Arab nations place great importance on television as a means of transmitting information and spreading education, in most countries the capability to produce programming domestically is less than 50 - 60%. For this reason, strengthening this capability in the future is a topic of grave importance in these countries. In some countries, in addition to improving hardware facilities through the introduction of the newest equipment, steady improvement is also being made in terms of software, by producing their own programs with the assistance of foreign producers and actors. Sooner or later, such nations will achieve sufficient capability to produce their own programs.

Nevertheless, in addition to boosting program production capability through the construction of physical facilities, a number of problems remain which require time to resolve -- such as the training of personnel. For this reason, it is predicted that no sudden structural change will take place in these countries in the short-or mid-term forecast which will allow them to reduce their heavy dependency on Egypt as a supplier of programming.
It is said that some 3 million Egyptian laborers are currently working overseas. About 90% of these workers live in the Arab nations. Also, Egyptian technicians account for a large portion of those who work at the broadcast stations of the Arab countries. These factors too are said to play a role in the great demand for Egyptian programming outside Egypt.

To summarize, as there is a development potential in TV broadcasting time in these Arab nations as well as their heavy dependency on Egypt as a supplier of programming indicates that Egyptian programs will continue to have great marketability within the Arab nations through the foreseeable future.

Quantitative Analysis

As a follow-up to the preceding qualitative analysis, we will undertake a quantitative consideration of the appropriateness of the projected number of hours of programming marketable by the New TV Center. The study is based on the following pre-conditions:

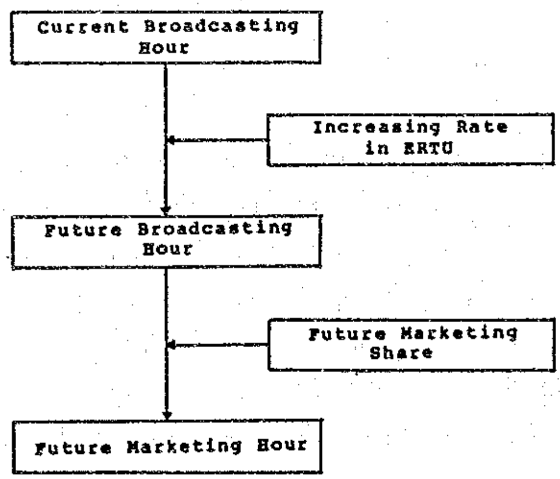
o The target sales figures indicated by ERTU are 3,400 hours of programming in 1991 and 10,000 hours in 1995.

o In view of past regional characteristics of sales, 88% of the gross number of program hours sold are estimated to be marketed to the above-mentioned 17 Arab countries, with the remaining 12% allotted to other areas. In 1991, therfore, the number of hours of programming to be sold to the 17 Arab countries is seen to be 3,000; in 1995, 8,800 hours.

o Overseas marketing activities of the Cairo Broadcasting Center will continue even after the New TV Center is completed. The Cairo Center has already reached saturation point in its ability to supply programming; accordingly, its marketing volume is assumed to remain at its current level of 5,000 hours, and no sharp increase is predicted.

The process by which the sales volume to the 17 Arab nations is considered is shown in the following flow chart.

FIG. 7-3 PROCEDURE OF STUDY



This process yields the following results:

o Estimated number of broadcasting hours

Based on the above data, the number of broadcasting hours per year in the 17 Arab countries is approximately 60,000. The average number of broadcasting hours per station per day therefore figures to about 9 hours and 30 minutes. However, owing to the actual operation of 24 channels in the 17 countries, the broadcasting time per channel per day is about 6 hours and 45 minutes. This figure represents less than 40% of the daily broadcasting time of NHK and about 50% of that of ERTU.

The estimation of future broadcasting hours of these countries can be accomplished on different basis such as applying the past trend of increase of each country, or using the past transition of broadcasting budget, etc. However, in this study, due to various constraints and lack of appropriate data, the rate of increase in the broadcasting hours of Egypt is used to estimate the future hours of these countries.

Within the Arab world, Egypt is most foward among the nations in the area of television broadcasting. Owing to the similarities in language, religion, culture and lifestyles between Egypt and the other Arab nations, the development of television broadcasting in Egypt can thus serve as a good reference for estimating the broadcasting hours of the other 17 countries.

TV broadcasting at ERTU began in 1960, followed by a second channel the next year. Widespread color broadcasts were inaugurated in earliest beginning in 1973. It is estimated that the two channels broadcast between 5,000 and 6,000 hours per year during the early 1970s. In the last ten years, therefore, the number of broadcasting hours increased by approximately 4,000; i.e., if calculated at a uniform rate, the growth during this period was about 5% per year.

If the same 5% annual growth rate is then applied to the broadcasting situation in the 17 Arab nations, in 1995 these nations will collectively be broadcasting about 102,600 hours of programming. This figure translates to 16 hours/day per station or about 12 hours/day per channel. This figure of broadcasting time per day per channel is quite close to ERTU's current broadcasting level. If, for example, six of the 11 countries which currently operate only one channel were to add a second channel, then the number of broadcasting hours per channel per day would be:

102,600 hrs/365 days/30 channels = 9.37 hrs/day.

This would appear to be a fair estimate in view of ERTU's current broadcasting volume (13 hrs/day) and could afford more increase.

Nevertheless, if this same 5% growth rate were applied without alteration to the period after 1995, then the number of broadcast hours in the year 2015 -- the last year under the scope of this project -- would be approximately 272,000. This result, however, would be unrealistic in view of the range of actual broadcasting hours. But if the number of broadcasting hours increases at the above 5% rate of growth through the year 2001, then in that year the number of broadcasting hours will be about 137,000; assuming the existence of 30 channels in the 17 countries, this figure would tally to about 12.5 hours of broadcasting per day per channel -- which is quite close to ERTU's current broadcasting level. In conclusion, therefore, an annual growth rate of 5% is assumed through the year 2000, under the condition that there will be an increase in the number of channels in operation in the 17 countries at that time; the number of broadcast hours after 2001 will remain fixed.

o Estimated marketing share

Here we will consider ERTU's marketing share based on the above forecasts of broadcasting times in the 17 Arab nations. The "marketing share" here is defined as the proportion of the 17 nations' broadcasting time occupied by ERTU programming hours.

Given the market(*3) target of 13,800 hours in the 17 nations in 1995 the estimated marketing share for that year is:

102,600 hrs x x% = 13,800 hrs

Accordingly, x = 13.5%.

(*3): marketed hours of New TV Center (8,800) + marketed hours of ERTU Cairo Broadcasting Center (5,000).

As shown in Table 7-11, ERTU's marketing share in the 17 nations at present is estimated at approximately 8%. As a result, in order to reach the preceding target (the share of 13.5% in 1995), ERTU will need to increase its marketing share at least by an average of 4.8% per year between 1984 and 1995.

Table 7-11 BROADCASTING HOUR AT EACH BROADCASTING STATION WITHIN ARAB WORLD AND SALES HOURS OF ERTU

Name of Station	No. of Channel	TV Hours	Market Hour	Market Share (%)
1. United Arab Emirates Radio & Television	2	6,000 (4.5)	847	14
2. San'a Television	1	2,900 (8)	514	18
3. Iraqi Broadcasing & Television Establishment	2	5,100 (7)	468	9
4. Oman Department of Broadcasting & Television	1	2,900 (8)	202	7
5. National Radio & Television Service of Qatar	1	2,500 (7)	21	0.8
6. Kuwait Broadcasting & Television Services	2	4,700 (6.5)	399	8
7. Saudi Arabian Radio & Television	1	2,400 (6.5)	361	15
8. Syrian Broadcasting & Television Organization	1	2,400 (6.5)	177	7
9. Bahrain Television	2	4,700 (6.5)	175	4
10. Democratic Yemen Broadcasting Service	1	1,600 (4.5)	183	11
11. Jordan Television Corporation	2	5,400 (7.5)	240	4
12. Tele-Liban	3	6,500 (6)	14	0.2
13. Radiodiffusion Television Algerienne	1	3,600 (10)	345	10
14. Sudan Television Service	1	1,800 (5)	63	4
15. Radiodiffusion Television Tunisienne	1	2,500 (7)	274	11
16. Radiodiffusion-Television Morocaine	1	2,100 (6)	146	7
17. Agence Mauritanienne de Television et de Cinema	1	3,100 (8.5)	314	10
Total	24	60,200	4,743	8

Figures in parenthesis refer to broadcast hour per channel per day

The following factors may be taken into consideration for increases or decreases which can take place in marketing share:

- Political events
- Marketing competition from other Arab nations
- Market trends
- Development of new markets
- Program content, quality, standards
- Unit selling price
- Marketing initiatives

As described above, between 1981 and 1984 ERTU achieved an unprecedented increase in its overseas marketing figures. It can be assumed that the reopening of business between Egypt and other Arab nations and the development of new markets, both made possible by political stability, were largely responsible for this achievement. Among the previous listed factors for changes in marketing shares, it can be expected that sales increases will be seen in view of market trends (increases) and content/quality of programming sold; on the other hand, the remaining factors can be expected to maintain their current status, with no remarkable changes in new market development anticipated either. For this reason, it would be improper to assume that the earlier high rate of growth will continue throughout the term of the project.

Therefore, it can be viewed quite realistic from the standpoint of marketing share that the future growth rate has been set more moderately despite the high growth rate seen in recent years. Incidentally, even if the share increases at 10%, the production capability can cope with the increase up to the year 2001. But it would be unrealistic to argue, as in the case of broadcasting hours, that the marketing share will continue to increase throughout the term of the project at its current rate.

In the United Arab Emirates and North Yemen, for example, the current marketing share is 16 - 18%; here, we have estimated moderately that the marketing share in 1995 will continue at about 14%.

o Estimated number of program hours sold

Table 7-12 shows the estimated number of program hours to be sold throughout the term of the project, based on the conclusions derived thus far. The figures given here refer exclusively to the New TV Center and do not include the marketing volumes of the Cairo Broadcasting Center.

Table 7-12 ESTIMATE OF MARKETING HOURS

Year	Marketing Hours
1991	3,400
1992	4,270
1993	5,270
1994	6,380
1995	10,000
1996	11,440
1997	12,300
1998	13,190
1999	14,140
2000	15,130
2001	16,180

Unit selling price, etc.

The unit selling prices for each program and the number of hours of each program sold under this project have both been set based on the past sales records of ERTU.

(ii) Domestic program sales

For convenience, sales volume for the project has been estimated to include an annual increase in demand of 15%, based on 1984 figures and in consideration of recent sales performance, etc.

The reason for seeking such "convenience" is the lack of information relating to video deck ownership rates and data necessary to forecast future trends. And yet, income from domestic sales accounts for no more than about 2 - 4% of total sales income; therefore, even if the forecast for this portion is not as precise as might be desired, the effect on the overall forecast is minimal.

Applying the above methods, since the sales volume in 1985 was about 5,000 units, sales in the initial year of operation (1991) are estimated at 11,500 units.

(iii) Income from spot advertising

The sales volume of spot advertising has been set as follows, in consideration of the scale of the facilities and studio operation status. Specifically, during the first phase of operation, production of spot advertising will rely on a combination of studio production (during idle hours only) and outdoor production using EFP. Together these will enable production of 280 spots per year. During the second phase of operation when the number of studios will be increased, this capability will be enlarged to 400 advertising spots per year.

The sales price is set at 4,000 L.E. a mean of present price distribution between 3,000 L.E. and 5,000 L.E.

According to ERTU, the internal production ratio is estimated to be about 75%. As the average time per commercial is 30 seconds and the average number of commercial repeats is 20 times, the number of spot commercials produced domestically each year is estimated as follows:

270 hours x 75% /20 times = 10 hours = 1,200 spots

On the other hand, the future commercial hours were estimated by the ERTU plan to be about 480 hours in accordance with the expansive of its total broadcasting time following the completion of the New TV Center.

If the internal production ratio and other factors remain unchanged, the number of future commercial spots is estimated as:

480 hours x 75% /20 times = 18 hours = 2,160 spots

If the ratio of domestically produced commercials will increase in the future, and if, it were to reach 90%, then the number would be about 2,600 spots.

From this it can be seen that the New TV Center's target of 400 commercial spots will satisfy between 28 - 40% of future demand increase, and 15 - 20% of the market share. Accordingly the target may be said to be quite within the scope of attainment in view of the resulting effects on the existing advertising agencies.

A study on television advertising has been carried out by MEAG(*4). In view of the significance of this information in forecasting future television advertising, an outline of this study is presented as follows:

- Over 52% of all businesses employ greater than 50% of their corporate advertising expenses for television commercials.
- Nearly 70% of all businesses believe that television advertising is an effective mean of selling their products
- 82% of those businesses which do not engage in television advertising believe that such advertising is effective, but too expensive.

To summarize, the effectiveness of television advertising is clearly recognized in Egypt and, judging by previous examples in the advanced industrialized nations, its importance in overall corporate activities will continue to grow in the future.

(*4): Conducted by Middle East Advisory Group. This study was carried out in 1982 by the request of ERTU for 919 companies in Egypt.

(iv) Income from Restaurant and Coffee Shop (Tentants)

Operation of the New TV center's restaurant and coffee shop is to be entrusted to private tenants. These facilities are to be used primarily by employees and performers. In determining the rental fees for these facilities, the Study Team sought to propose rental terms favorable to the tenants, in order to ensure that employees and other users will receive excellent services at these facilities.

For this reason, rental fees were based on the facilities' maintenance costs and corresponding depreciation cost. It was calculated to be 36 L.E. per squire meter; multiplying this figure by the rentable area (1,000 m^2) of the restaurant and coffee shop yields a rental fee of 36,000 L.E. per year.

(v) Government Refunding

Government refunds related to the production of educational and cultural programs are allotted to various expenses (direct expenses and corresponding indirect expenses and depreciation costs) to cover the production of educational cultural and other programs of a general nature. At the same time, they cover the support margin for the operation of the New TV Center. The price equivalency calculation method is as follows:

1. Employee salaries: 50% of total expenses (ratio between staff required to produce dramas and that for general programs)
2. Program production costs: production costs (Table 7-6)
3. Utility costs: 35% of total expenses (ratio between studio area required for production of dramas and that for general programming)
4. Indirect expenses: 32% of total expenses (except, 35% during first phase of project)
5. Depreciation costs: same rate as in 4 above.
6. Profit: 10%

7-1-5 Preconditions of Analysis

In addition to the various input data described above, several other preconditions are necessary when carrying out the financial analysis of this project. The principal ones among them are as follows:

(1) Capital Procurement

The combined investment sum for the first and second phases of the project calls for 68 million LE in local currency and US$130 million in foreign currency (both at 1985 prices). It has been assumed that the foreign-currency portion would be provided through soft loans from overseas lending institutions to the Egyptian Government. The local-currency portion will be assigned as a capital investment by Egyptian Government. Operating costs incurred during the first year of operation will also be supplied through Egyptian Government. The financial conditions for the local-currency portion have been submitted by ERTU. Accordingly, of the initial investment costs, 71% is to be provided through soft loans and 29% through public investment by the Egyptian Government.

(2) Depreciation Cost

Depreciation costs are funds held in reserve as a mean of securing the capital required to replace the property in question.

Land is not included in such depreciation, however.

The depreciation period for the constructed property is 40 years for architecture and 10 years for broadcasting facilities and equipment. The straight-line depreciation method has been used for architecture, while the declining balance method has been used for broadcasting facilities and equipment. The residual value in both case is 10%.

(3) Inflation

The evaluation is conducted at 1985 constant prices with no inflation.

7-1-6 Results of Evaluation

(1) Analysis of Financial Statements

a. Evaluation Indicators

The ultimate evaluation of the financial analysis consists of judging the project from two aspects: its profitability and fund management. While profitability is often seen to be most important to a project's operation, in the case of the present project, which is extremely public in nature, greater emphasis is placed on funding than on profit potential. Accordingly, for the purposes of this analysis, a judgement will be made concerning the ability of the project executing body (i.e., the management of the New TV Center) to build a reserve against depreciation and mobilize capital required for repairs and renovations using a sufficient portion of profits, while still paying various operating expenses and long-term loan repayments.

In addition, indicators of high importance in the financial analysis evaluation include the length of the accumulated deficit depletion term, the maximum fund requirement, etc.

b. Results of Evaluation

An estimated profit/loss calculation was performed based on the conditions that the foreign-currency portion of the initial investment requirement would be supplied through long-term soft loans (4% interest rate), and the local-currency portion through funds from the Egyptian Government. The results are shown in the profit and loss statement given in Annex 7-1. The secular changes in the operating balance are shown in Fig. 7-4.

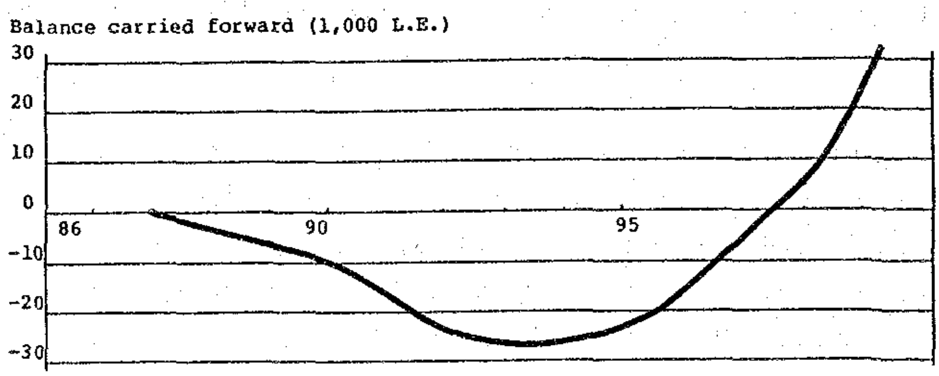
The annual balance of current account shows that profits outpace deficits starting in the fourth year of the project's operation. Even so, however, the accumulated balance continues to show a deficit through 1997, and it isn't until 1998 that the overall balance moves into the black. The maximum accumulated deficit is 25.7 million L.E. tallied in 1993.

The interest payment in construction period and the dificit in three years from the operation are to be covered by the subsidy from the Egyptian government, therefore, no dificit is actually carried over to be accumulated for the project. On the other hand, these are a expenditure for subsidy for the government.

As shown in Annex 7-1, the operating ratio, which describes the current account, exceeds 100% during the first three years of operation; in the fourth year, though, it falls below 100% and continues falling through the tenth year; in the eleventh year it rises again temporarily due to the addition of depreciation costs to cover facility renovations; and this same momentary rise is seen again during the fifteenth, twenty-first and twenty-fifth years to cover the same type of depreciation costs.

As just noted, the project includes several interim facility renovations which are accompanied by corresponding rises in the operating ratio. Nevertheless, the balance improves gradually after the fourth year and transit at 50 to 60% after 1999, thus marking the beginning of "sound" operation.

FIG. 7-4 TREND OF BALANCE CARRIED FORWARD OF NEW TV CENTER



The source and application table is shown in Annex 7-2. Loan repayment reaches a peak in the ninth year of operation (1999), when the grace period for the long-term loan of 1994 ends and full-scale repayment of the principal begins. Due to sufficient operating earnings, however, repayment will be possible without the necessity of introducing government subsidies or short-term loans. An indicator of the project body's sound ability to make such loan repayments is the annual debt service ratio. Table 7-13 indicates the annual debt services ratio from the first year of the project's operation upto the year in which the repayment of the principal of the long-term loan is to be nearly completed. The repayment cannot be covered only by the project profit during the Phase I construction and the first four years of operation when the repayment of loan starts despite only the profit of Phase I is available. As seen, with the exception of the construction period on the whole the ratio shows a more-than-adequate value --thus indicating the soundness of the project body's ability to effect loan repayments.

This situation is aided by the fact that the local-currency portion of the construction costs which is provided through government investment does not demand repayment, which means that the repayment obligation of the project body is reduced by this amount.

From the above discussion, it may be said that the project is adequately capable of satisfying the fund procurement structure which was assumed in Section 7-1-5(1) above.

Table 7-13 DEBT SERVICE RATION

Year	Debt Service Ratio
1987	-
1988	-
1989	-
1990	-
1991	0.8
1992	0.8
1993	0.7
1994	0.7
1995	1.3
1996	1.5
1997	1.6
1998	1.7
1999	1.8
2000	2.0
2001	2.5
2002	2.5
2003	2.6
2004	2.6
2005	2.8
2006	2.9
2007	3.0
2008	3.1
2009	3.2
2010	3.3
2011	3.7
2012	3.8
2013	5.2
2014	7.1
2015	11.8

(2) Financial Cost Benefit Analysis

a. Evaluation Indicator

A financial cost benefit analysis serves to evaluate a project in terms of its inherent profitability. The index of evaluation is the internal rate of return. As this naming indicates, the project's capital cost, i.e. its loan interest rate, is one yardstick of evaluation; in other words, it is desirable that the internal rate of return exceed the interest rate on related loans.

b. Results of Evaluation

The calculation sheet of the internal rate of return for the New TV Center is shown in Annex 7-3. The period of calculation is 29 years, consisting of an 8-year construction period (including the detailed design period, etc.) and 25 years in operation. It is assumed that investments will be applied during this period to replace facilities with short lifespans. It is therefore necessary to keep in mind that the residual value of these facilities for the final year of the project falls in the minus zone. The items used in discussing cost and benefit here are:

cost = construction costs, operating costs
benefit = operating income

The evaluation of the project's inherent profitability has been carried out independent of such factors as the ratio of loans in overall investments or the repayment of interest and principal. In this way, the evaluation refers exclusively to the project's own profitability.

The results of the analysis yield an internal rate of return of 7.72% under the conditions described above. Given the 4% rate of interest on the project's loans, it may therefore be said that the project is indeed feasible.

On the other hand, the local currency portion of the initial investment is covered by the public investment from the Egyptian government. Therefore, if this portion is not counted as an investment, the internal rate of return becomes 11.09%. Namely the executing body can stand a loan interest rate of up to about 11%.

(3) Sensitivity Analysis

In the base case, supply plans are formulated to meet new sales which arises while the selling price remains constant. As already described, for example, the number of hours of programming to be sold overseas has been set under the assumptions of future growth in broadcast time in the 17 Arab nations and expansion in the marketing share of the New TV Center accomplished through independent efforts. Based on these facts, the sensitivity analysis to be performed here divides broadly into two categories. The first refers to overseas sales: i.e., it refers to the case where the New TV Center's overseas sales decline, whether due to a drop in growth in broadcasting time in overseas markets and a consequent reduction in demand for programs, or due to a small marketing share despite program demand. The second case refers to the situation where an increase in operating costs takes place.

a. Effects of changes in demand

If, for example, the overseas sales demand were to drop by 20% from the base case just described, the internal rate of return would be 5.18%; the project would still remain feasible, however, given the conditions of a 4% interest rate on the project loans. The project would run a deficit on a year-by-year basis during the first five years of its operation, and then move into the black after the fifth year; on an accumulated basis, however, the project would enter the black in its eleventh year in operation, i.e. three years later than in the base case. The debt service ratio would be low during Phase I operation, and during four or five years after operation, it indicates relatively low rate with little allowance.

For example, if there were to be a 30% downturn in demand, the IRR would fall to 3.70%, and this would mean that the project were no longer a sound investment for the financing side under the conditions of an interest rate of 4%. Furthermore, the project would not enter the black on a cumulative basis until its thirteenth year of operation, which would require a lengthening of the government subsidy period necessary to compensate for the project's deficits.

b. Effects of changes in operating cost

In contrast, if all other conditions remain unchanged and only operating costs were to increase by 20%, then the internal rate of return would be 6.39%. While the project would remain in the red during its first five years of operation as in the case outlined above, the project would enter the black on an accumulated basis during its tenth year of operation, i.e. one year earlier than in case a. The debt service ratio undergoes with relatively low as in case a.

Based on case a and b just described, the internal rate of return is quite sensitive to demand, exhibiting a sensitivity rate of approximately 1.6% (i.e., a 10% decline in demand results in a 16% drop in the IRR).

(4) Financial Analysis of the First Phase

The financial analysis method used here is fundamentally the same as that which is used in financially evaluating the overall project. The analysis model and indexes of evaluation are also identical in both cases. Accordingly, here we will clarify the points of difference with the overall project analysis and also indicate additional conditions for the present analysis.

o Hours of marketing overseas after 1995 is estimated applying the increasing tendency appeared during 1991-1994. Even so, however, the copy center will reach its peak of production capability in 2001, and no further increase is predicted thereafter.

o On the subject of domestic cassette sales, the copy center will reach its production capacity limit in 1994, and the number of units sold thereafter will remain uniform.

The estimated profit/loss statement, estimated source and application table and cash flow, all based on the above conditions are shown in Annexes 7-4 through 7-6.

The results yield an IRR of 8.93% for the first phase of the project, representing an increase by 1.29%. The operating ratio and debt service ratio are also higher than the corresponding values for the overall project.

Therefore, it is understood that from the financial standpoint the first phase of the project is indeed feasible.

7-2 Social Appraisal

7-2-1 Educational Impact

(1) Current Status of Education in Egypt and Topics of Concern

Following the change in government which took place in 1952, Egypt's leadership has promoted the following measures in order to carry out its lofty goal based on the declaration that "education, like air and water, is the right of all Egyptians":

- free education at all levels
- compulsory education at the elementary level
- expansion in school facilities and unification of educational curriculum under the guidance of the Ministry of Education
- increased number of teachers and improvement in their level of qualification
- increased number of universities and the establishment of a Ministry of Higher Education.

As a result of this official policy, remarkable growth has been achieved in the rate of school attendance, the adult literacy rate and in the number of schools. The illiteracy rate, for example, declined from 70.5% in 1960 to 56.5% in 1976 (see Table 7-14). The ratio of persons completing higher education simultaneously grew from a mere 0.8% in 1960 to 2.2% in 1976.

In spite of these strong advances, the illiteracy rate remains high and the ratio of persons completing higher education is quite low in terms of overall polulation, thus indicating the need for Egypt to continue its efforts to spread education. Among the topics of greatest concern are the increase in educational facilities and teacher training to cope with increased population, greater dissemination of technical education which is necessary for improving national productivity and achieving economic development, and promoting the education of the masses as a means of attaining modernization.

Table 7-14 POPULATION BREAKDOWN BY SEX AND EDUCATIONAL BACKGROUND
(Persons age 10 and over)

Education	1960 census			1976 census		
	Male	Female	Total	Male	Female	Total
Illiteracey	56.9	84.0	70.5	43.2	71.0	56.5
Reading/writing	32.6	12.4	22.5	33.2	16.2	25.1
Middle education	9.0	3.4	6.2	20.4	11.6	16.2
Higher education	1.5	0.2	0.8	3.2	1.2	2.2

Source: Tentative results of CAPMAS 1960 and 1976 censuses

(2) Current State of Educational Broadcasting

In developing countries with high rates of illiteracy, in recent years audio-visual education has been recognized as an effect means of lowering the illiteracy rate and the use of educational TV broadcasting has become increasingly prevalent. Egypt is by no means an exception, and TV broadcasting is playing an important role in the education of the Egyptian people.

Table 7-15 shows the broadcasting time per day of educational TV programming on ERTU. In 1983/84 the average was 1:20 hr/day, or about 500 hours per year. Nearly all such educational programming is produced by the station itself, and in content it is aimed at students of elementary, middle and high school levels. There is also a substantial amount of programming on vocational training and university courses (A.U. programs). And yet, owing to the nearly complete absence of TV receivers in schools, the use of educational broadcasting has been limited in almost all cases to the home rather than in-school.

Table 7-15 DAILY EDUCATIONAL TELEVISION SERVICES

Year	Educational Services	% of Total Services
1978	- hour 44 min.	4
1979	- hour 44 min.	4
1980	- hour 19 min.	1.6
1981	- hour 54 min.	3.7
1981/82	1 hour 02 min.	4.2
1982/83	1 hour 17 min.	5.2
1983/84	1 hour 22 min.	5.4

(3) Contribution of New TV Center

The project newly includes numerous in-school educational programs for first- and second-year middle school and high school students. It is hoped that these new audio-visual materials will have great benefits in terms of school education and learning. It is also believed that audio-visual materials can be extremely effective in vocational training, and if vocational training programming is introduced into the classroom, it can bring major benefits to general members of the population who require vocational training at schools.

In addition to such in-school educational programs and vocational training programming, this project also includes educational programs for teachers, foreign language education programming, Arabic language teaching programs and programs for children. Programs designed for teachers, in particular, are designed to meet the need to train new teachers and raise their level of qualification, and this has great significance in terms of improving the teaching capabilities of those who serve as the core of education. Arabic language programs and vocational training progrms meanwhile are not only effective in lowering the illiteracy rate but are also beneficial for rectifying the extreme tendency of the young to become white-collar workers. The programs for children not only provide education to children in their pre-school years, but also may bring added benefit to family life in general.

7-2-2 Cultural Significance

Mirroring the importance placed on culture in the daily lives of its citizens, the Egyptian Government established its Ministry of Culture. Today cultural centers containing theaters, cinema halls, libraries and exhibition halls have sprung up in towns and villages all around the country, and they are widely used by the people. On the other hand, Egypt is quite obviously the birthplace of ancient civilization, and it is vital to preserve and carry on its many historical and cultural legacies.

The role of television broadcasting is also great in terms of promoting these cultural activities of the people and carrying on their traditions and culture. Table 7-16 shows the broadcasting times of ERTU's cultural programs since 1978. In 1983/84, the daily average was about 4 hours and 40 minutes, or 1,715 hours per year. In addition to programs on literature, and art, they also included a wide range of areas such as internationally acclaimed dramas, economics and science.

Table 7-16 DAILY BROADCAST TIME OF CULTURAL PROGRAMS

Year	Cultural Services	% of Total Services
1978	2 hours 13 min.	12.2
1979	2 hours 14 min.	12.4
1980	2 hours 40 min.	13.2
1981	4 hours 03 min.	16.9
1981/82	4 hours 32 min.	18.4
1982/83	4 hours 23 min.	17.8
1983/84	4 hours 42 min.	18.5

Against this background, it is hoped that the New TV Center will make use of its highly modern facilities to produce cultural programs of high quality and high standards, in order to meet the cultural needs of the people and the nation. Television is penetrating deep into the daily lives of Egyptian citizens as one of today's most powerful media, and the TV dramas, cultural programs, variety shows, etc. which will be made at the New TV Center through new technologies will contribute to the broad development of the nation's culture and the elevation of the people's level of cultivation. Furthermore, intercultural exchange will be made possible via TV between urban and rural areas, as well as serve to introduce Egyptian culture overseas, which can potentially lead to an increase in tourism.

7-2-3 Impact on Society and Lifestyle

The educational programs and educational dramas produced at the New TV Center, as well as short programs which provide specific information which may serve as a reference in resolving various problems (health, sanitation, etc.) occurring in daily life, and advertisements may be said to have the following potential impact on society and lifestyle: improvement in nutrition and sanitation, increased numbers of women in the labor force, increased consumer groups with high levels of awareness, improved consumer life, etc.

7-2-4 Impact on the Economy and Industry

It is belied that the implementation of this project will also have the following impacts on the Egyptian economy and its industry.

- Overseas sales of programs not only will support the operating base of the New TV Center, but will also be of great significance it acquiring sorely needed foreign currency.

- With the implementation of this project, the rate of independent program production at ERTU will rise dramatically. In terms of program supply, a shift will take place from imported programming to independent program production, which will contribute sharply to reducing Egypt's drain of foreign currency.

- Of the total investment sum required for this project, 68 million L.E., or approximately 30%, consists of the local-currency portion. It is believed that an investment of such major size will bring direct economic benefit to the local citizens and industries in 6th October City during the construction period. A tentative calculation of the effects of the project in term of job creation, for example, shows that 6 man-days of unskilled labor will be required for every square meter. This tanslates into approximately 700,000 man-days of newly created employment.

7-3 Conclusion and Recommendation

The financial analysis of the New TV Center Project assumes the following preconditions: (i) the Egyptian Government will cover the local-currency portion (approx. 29%) of the initial investment costs through public investment; (ii) low-interest long-term loans will be applied for the foreign-currency portion; (iii) the costs of educational and cultural programms will be received in the form of income from the Government as reasonable refundings. Meanwhile, it can be expected that the New TV Center will take in considerably enlarged income in the future in view of favorable overseas program marketing performance in recent years.

Given these various factors, the results of the fnancial analysis may be summed up as follows. Although an accumulated deficit will continue during the first seven years of the Center's operation, operation can be expected to move into the black as of the eighth year (1998), with a fair amount of profits to be reaped thereafter. Also, in general there would appear to be adequate capability to repay the necessary loans under the funding structure outlined above.

The project's internal rate of return calculates to 7.72% while the interest rate on its loans are assumed to be 4%, this means that the project is feasible under the given terms. Furthermore, in addition to the financial income to be gleaned through the project executing body, the New TV Center would also conceivably have a variety of important socio-economic effects -- such as the spread of education, cultural enhancement, improvement of social services and stimulation of related economic activities.

As a result of the foregoing financial analysis and the social evaluation, it is our recommendation that the project be implemented without delay.

A N N E X

ANNEX 7-1

BASE CASE TABLE PROFIT AND LOSS STATEMENT

DESCRIPTION	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1.REVENUE																				
1)Marketing Program Overseas	8577	10771	13294	16094	25225	28857	31027	33272	35668	38165	40814	40814	40814	40814	40814	40814	40814	40814	40814	40814
2)Marketing Program Domestic	518	594	680	779	891	1022	1175	1350	1553	1782	2048	2048	2048	2048	2048	2048	2048	2048	2048	2048
3)Spot Advertising	1120	1120	1120	1120	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
4)Rentals of Restaurant etc.	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
5)Government Refunding	8308	7558	6964	6493	10430	9660	9049	8564	8180	7877	9974	9298	8762	8337	9700	9082	8590	8200	7890	7644
TOTAL	18558	20079	22093	24522	38182	41176	42887	44822	47037	49460	54472	53796	53260	52835	54199	53580	53088	52698	52388	52142
2.OPERATING EXPENSE																				
1)Direct Cost	8199	8285	8414	8559	14050	14265	14402	14581	14782	15003	15279	15254	15254	15254	15254	15279	15254	15254	15254	15254
-Direct Personnel Wage	2673	2673	2673	2673	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402
-Programming Cost	4634	4634	4634	4634	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984
-Utility Cost	282	282	282	282	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360
-Sound Tape Cost	25	0	0	0	0	25	0	0	0	0	25	0	0	0	0	25	0	0	0	0
-VTR Tape Cost	533	637	757	892	1215	1392	1539	1700	1881	2079	2303	2303	2303	2303	2303	2303	2303	2303	2303	2303
-Marketing Commission	52	59	68	78	89	102	117	135	155	178	205	205	205	205	205	205	205	205	205	205
2)Indirect Cost	2056	2061	2067	2074	2956	2967	2973	2982	2992	3003	3017	3016	3016	3016	3016	3017	3016	3016	3016	3016
-Management Personnel Wage	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222
-Maintenance and Repair	1346	1346	1346	1346	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924
-Miscellaneous Cost	488	493	499	506	810	821	827	836	846	857	871	870	870	870	870	871	870	870	870	870
TOTAL	10255	10346	10482	10634	17006	17231	17375	17563	17774	18007	18296	18270	18270	18270	18270	18296	18270	18270	18270	18270
3.DEPRECIATION																				
1)Broadcasting Fac.	9381	7449	5914	4696	10563	8386	6660	5287	4198	3334	9217	7318	5811	4614	8450	6709	5327	4230	3358	2666
2)Building	2326	2326	2326	2326	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001
TOTAL	11707	9775	8240	7022	13564	11387	9661	8288	7199	6335	12218	10319	8812	7615	11451	9710	8328	7231	6359	5667
4.INTEREST PAYMENT																				
1)Foreign Loan	14277	5436	5994	6501	6275	6047	5774	5470	5132	4794	4456	4118	3780	3442	3104	2766	2427	2089	1751	1413
5.OPERATING PROFIT	-17680	-5478	-2622	365	1337	6511	10076	13501	16932	20325	19502	21089	22399	23508	21374	22808	24063	25108	26008	26792
6.ACCUMULATED PROFIT	-17680	-23158	-25781	-25416	-24078	-17568	-7491	6010	22942	43267	62769	83858	106257	129765	151139	173947	198010	223118	249125	275917
OPERATING RATIO (%)	195.3	127.3	111.9	98.5	96.5	84.2	76.5	69.9	64.0	58.9	64.2	60.8	57.9	55.5	60.6	57.4	54.7	52.4	50.4	48.6

(UNIT:1000 L.E.)

2011	2012	2013	2014	2015
40814	40814	40814	40814	40814
2048	2048	2048	2048	2048
1600	1600	1600	1600	1600
36	36	36	36	36
9852	9201	8685	8276	9700
54350	53699	53183	52774	54199
15279	15254	15254	15254	15254
4402	4402	4402	4402	4402
7984	7984	7984	7984	7984
360	360	360	360	360
25	0	0	0	0
2303	2303	2303	2303	2303
205	205	205	205	205
3017	3016	3016	3016	3016
222	222	222	222	222
1924	1924	1924	1924	1924
871	870	870	870	870
18296	18270	18270	18270	18270
8875	7046	5594	4443	8450
3001	3001	3001	3001	3001
11876	10047	8595	7444	11451
1075	744	500	321	208
23102	24638	25818	26739	24269
299019	323658	349476	376215	400484
57.5	54.1	51.5	49.3	55.2

ANNEX 7-2

BASE CASE

TABLE SOURCE AND APPLICATION

DESCRIPTION	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1.SOURCE																				
1)OPERATING PROFIT BEFORE DEPRECIATION	-136	-1875	-3180	-4511	3729	4297	5618	7387	14901	17898	19737	21789	24131	26660	31720	31408	31211	31123	32825	32518
2)LONG TERM LOAN	3407	43476	32608	33284	1583	21717	16299	16636												
3)SUBSIDY	67	21292	15971	16370	25	5588	4194	4507												
TOTAL	3338	62893	45399	45143	5337	31602	26111	28530	14901	17898	19737	21789	24131	26660	31720	31408	31211	31123	32825	32518
2.APPLICATION																				
1)INVESTMENT	3475	64768	48579	49654	1608	27306	20482	21142						36434				26542		
2)LOAN REPAYMENT-LONG TERM						170	2344	3975	5639	5718	6804	7619	8451	8451	8451	8451	8451	8451	8451	8451
TOTAL	3475	64768	48579	49654	1608	27476	22826	25117	5639	5718	6804	7619	8451	44885	8451	8451	8451	34993	8451	8451
CASH SURPLUS	-137	-1875	-3180	-4511	3729	4126	3284	3413	9263	12180	12933	14170	15681	-18225	23269	22958	22760	-3869	24375	24068
ACCUMULATED SURPLUS	-137	-2013	-5192	-9703	-5974	-1848	1436	4849	14112	26292	39225	53396	69076	50852	74121	97079	119839	115970	140344	164412
DEBT-SERVICE RATIO	-1.0	-1.0	-1.0	-1.0	0.8	0.8	0.7	0.7	1.3	1.5	1.6	1.7	1.8	2.0	2.5	2.5	2.6	2.6	2.8	2.9

(UNIT:1000 E.L.)

DESCRIPTION	2007	2008	2009	2010	2011	2012	2013	2014	2015
1.SOURCE									
1)OPERATING PROFIT BEFORE DEPRECIATION	32391	32339	32367	32459	34978	34685	34413	34183	35720
2)LONG TERM LOAN									
3)SUBSIDY									
TOTAL	32391	32339	32367	32459	34978	34685	34413	34183	35720
2.APPLICATION									
1)INVESTMENT				59329				32935	
2)LOAN REPAYMENT-LONG TERM	8451	8451	8451	8451	8451	8280	6106	4476	2812
TOTAL	8451	8451	8451	67780	8451	8280	6106	37411	2812
CASH SURPLUS	23940	23888	23916	-35321	26528	26405	28307	-3228	32908
ACCUMULATED SURPLUS	188352	212241	236157	200836	227364	253769	282076	278848	311756
DEBT-SERVICE RATIO	3.0	3.1	3.2	3.3	3.7	3.8	5.2	7.1	11.8

ANNEX 7-3

BASE CASE TABLE CASH FLOW STATEMENT

IRR=7.72

DESCRIPTION	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1.REVENUE																				
1)Marketing Program Overseas					8577	10771	13294	16094	25225	28857	31027	33272	35668	38165	40814	40814	40814	40814	40814	40814
2)Marketing Program Domestic					518	594	680	779	891	1022	1175	1350	1553	1782	2048	2048	2048	2048	2048	2048
3)Spot Advertising					1120	1120	1120	1120	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
4)Rentals of Restaurant etc.					36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
5)Government Refunding					8308	7558	6964	6493	10430	9660	9049	8564	8180	7877	9974	9298	8762	8337	9700	9062
TOTAL					18558	20079	22093	24522	38182	41176	42887	44822	47037	49460	54472	53796	53260	52835	54199	53580
2.INVESTMENT																				
1)Building Construction		41351	31014	31014		12002	9003	9003												
2)Broadcasting Facilities and Installation		18070	13554	13918		13156	9868	10154												
3)Engineering Services	3207	1379	1034	1683	1531	607	456	779												
4)Contingency	268	3968	2977	3039	77	1541	1155	1206												
5)Facility Renewal														36434				26542		
TOTAL	3475	64768	48579	49654	1608	27306	20482	21142						36434				26542		
3.OPERATING EXPENSE																				
1)Direct Cost					8199	8285	8414	8559	14050	14265	14402	14581	14782	15003	15279	15254	15254	15254	15254	15279
-Direct Personnel Wage					2673	2673	2673	2673	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402	4402
-Programming Cost					4634	4634	4634	4634	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984	7984
-Utility Cost					282	282	282	282	360	360	360	360	360	360	360	360	360	360	360	360
-Sound Tape Cost					25					25					25					25
-VTR Tape Cost					533	637	757	892	1215	1392	1539	1700	1881	2079	2303	2303	2303	2303	2303	2303
-Marketing Commission					52	59	68	78	89	102	117	135	155	178	205	205	205	205	205	205
2)Indirect Cost					2056	2061	2067	2074	2956	2967	2973	2982	2992	3003	3017	3016	3016	3016	3016	3017
-Management Personnel Wage					222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222
-Maintenance and Repair					1346	1346	1346	1346	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924
-Miscellaneous Cost					488	493	499	506	810	821	827	836	846	857	871	870	870	870	870	871
TOTAL					10255	10346	10482	10634	17006	17231	17375	17563	17774	18007	18296	18270	18270	18270	18270	18296
4.CASH SURPLUS	-3475	-64768	-48579	-49654	6695	-17573	-8870	-7254	21177	23944	25512	27259	29263	-4980	36175	35526	34990	8023	35929	35284

(UNIT:1000 L.E.)

2007	2008	2009	2010	2011	2012	2013	2014	2015
40814	40814	40814	40814	40814	40814	40814	40814	40814
2048	2048	2048	2048	2048	2048	2048	2048	2048
1600	1600	1600	1600	1600	1600	1600	1600	1600
36	36	36	36	36	36	36	36	36
8590	8200	7890	7644	9852	9201	8685	8276	9700
53088	52698	52388	52142	54350	53699	53183	52774	54199
			59329				32935	-82184
			59329				32935	-82184
15254	15254	15254	15254	15279	15254	15254	15254	15254
4402	4402	4402	4402	4402	4402	4402	4402	4402
7984	7984	7984	7984	7984	7984	7984	7984	7984
360	360	360	360	360	360	360	360	360
				25				
2303	2303	2303	2303	2303	2303	2303	2303	2303
205	205	205	205	205	205	205	205	205
3016	3016	3016	3016	3017	3016	3016	3016	3016
222	222	222	222	222	222	222	222	222
1924	1924	1924	1924	1924	1924	1924	1924	1924
870	870	870	870	871	870	870	870	870
18270	18270	18270	18270	18296	18270	18270	18270	18270
34818	34428	34118	-25457	36054	35429	34913	1569	118113

ANNEX 7-4

BASE CASE PHASE 1 ONLY TABLE PROFIT AND LOSS STATEMENT

DESCRIPTION	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1.REVENUE																				
1)Marketing Program Overseas	8577	10771	13294	16094	19146	22375	24241	26133	28202	30320	32540	32540	32540	32540	32540	32540	32540	32540	32540	32540
2)Marketing Program Domestic	518	594	680	779	779	779	779	779	779	779	779	779	779	779	779	779	779	779	779	779
3)Spot Advertising	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120
4)Rentals of Restaurant etc.	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
5)Government Refunding	8308	7558	6964	6493	6119	5822	5586	5398	5250	5132	7595	6993	6516	6137	5836	5597	5407	5257	5137	5042
TOTAL	18558	20079	22093	24522	27199	30131	31762	33466	35386	37388	42070	41468	40991	40612	40311	40072	39882	39732	39612	39517
2.OPERATING EXPENSE																				
1)Direct Cost	8188	8285	8414	8559	8646	8753	8792	8846	8905	8965	9043	9029	9029	9029	9029	9043	9029	9029	9029	9029
-Direct Personnel Wage	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673
-Programming Cost	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634
-Utility Cost	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282
-Sound Tape Cost	14					14					14					14				
-VTR Tape Cost	533	637	757	892	979	1072	1125	1179	1238	1298	1362	1362	1362	1362	1362	1362	1362	1362	1362	1362
-Marketing Commission	52	59	68	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
2)Indirect Cost	2056	2061	2067	2074	2079	2084	2086	2089	2092	2095	2099	2098	2098	2098	2098	2099	2098	2098	2098	2098
-Management Personnel Wage	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222
-Maintenance and Repair	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346
-Miscellaneous Cost	488	493	499	506	511	516	518	521	524	527	531	530	530	530	530	531	530	530	530	530
TOTAL	10244	10346	10482	10634	10725	10837	10878	10935	10997	11060	11141	11127	11127	11127	11127	11141	11127	11127	11127	11127
3.DEPRECIATION																				
1)Broadcasting Fac.	9381	7449	5914	4696	3729	2960	2351	1866	1482	1177	7505	5958	4731	3757	2983	2368	1880	1493	1185	941
2)Building	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326	2326
TOTAL	11707	9775	8240	7022	6055	5286	4677	4192	3808	3503	9831	8284	7057	6083	5309	4694	4206	3819	3511	3267
4.INTEREST PAYMENT																				
1)Foreign Loan	14213	4504	4410	4251	4026	3800	3575	3349	3124	2898	2673	2447	2221	1996	1770	1545	1319	1094	868	643
5.OPERATING PROFIT	-17606	-4546	-1039	2614	6393	10208	12632	14990	17458	19927	18425	19611	20586	21407	22105	22692	23230	23692	24106	24481
6.ACCUMULATED PROFIT	-17606	-22151	-23190	-20576	-14182	-3974	8658	23648	41107	61033	79458	99069	119655	141061	163167	185859	209089	232782	256888	281369
OPERATING RATIO (%)	194.9	122.6	104.7	89.3	76.5	66.1	60.2	55.2	50.7	46.7	56.2	52.7	49.8	47.3	45.2	43.4	41.8	40.4	39.1	38.1

(UNIT:1000 L.E.)

2011	2012	2013	2014	2015
32540	32540	32540	32540	32540
779	779	779	779	779
1120	1120	1120	1120	1120
36	36	36	36	36
7595	6993	6516	6137	5836
42070	41468	40991	40612	40311
9043	9029	9029	9029	9029
2673	2673	2673	2673	2673
4634	4634	4634	4634	4634
282	282	282	282	282
14				
1362	1362	1362	1362	1362
78	78	78	78	78
2099	2098	2098	2098	2098
222	222	222	222	222
1346	1346	1346	1346	1346
531	530	530	530	530
11141	11127	11127	11127	11127
7505	5958	4731	3757	2983
2326	2326	2326	2326	2326
9831	8284	7057	6083	5309
417	198	67	0	0
20681	21859	22741	23403	23876
302049	323908	346649	370052	393927
50.8	47.3	44.5	42.4	40.8

ANNEX 7-5

BASE CASE PHASE 1 ONLY　　TABLE　　SOURCE AND APPLICATION

DESCRIPTION	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1.SOURCE										
1)OPERATING PROFIT BEFORE DEPRECIATION	-136	-1875	-3180	-4511	3804	5229	7201	9636	12448	15494
2)LONG TERM LOAN	3407	43476	32608	33284						
3)SUBSIDY	67	21292	15971	16370						
TOTAL	3338	62893	45399	45143	3804	5229	7201	9636	12448	15494
2.APPLICATION										
1)INVESTMENT	3475	64768	48579	49654	0	0	0	0	0	0
2)LOAN PAYMENT-LONG TERM	0	0	0	0	0	170	2344	3975	5639	5639
TOTAL	3475	64768	48579	49654	0	170	2344	3975	5639	5639
CASH SURPLUS	-137	-1875	-3180	-4511	3804	5059	4857	5662	6810	9855
ACCUMULATED SURPLUS	-137	-2013	-5192	-9703	-5900	-841	4016	9678	16488	26343
DEBT-SERVICE RATIO	-1.0	-1.0	-1.0	-1.0	0.8	1.1	1.1	1.2	1.3	1.6

DESCRIPTION	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1.SOURCE										
1)OPERATING PROFIT BEFORE DEPRECIATION	17309	19182	21266	23430	28256	27895	27643	27490	27414	27386
2)LONG TERM LOAN										
3)SUBSIDY										
TOTAL	17309	19182	21266	23430	28256	27895	27643	27490	27414	27386
2.APPLICATION										
1)INVESTMENT	0	0	0	36434	0	0	0	0	0	0
2)LOAN PAYMENT-LONG TERM	5639	5639	5639	5639	5639	5639	5639	5639	5639	5639
TOTAL	5639	5639	5639	42073	5639	5639	5639	5639	5639	5639
CASH SURPLUS	11670	13544	15627	-18643	22617	22256	22004	21851	21775	21747
ACCUMULATED SURPLUS	38014	51557	67185	48542	71159	93415	115419	137270	159045	180793
DEBT-SERVICE RATIO	1.9	2.1	2.4	2.7	3.4	3.4	3.5	3.6	3.7	3.8

(UNIT:1000 L.E.)

DESCRIPTION	2007	2008	2009	2010	2011	2012	2013	2014	2015
1.SOURCE									
1)OPERATING PROFIT BEFORE DEPRECIATION	27436	27511	27617	27748	30512	30143	29798	29486	29185
2)LONG TERM LOAN									
3)SUBSIDY									
TOTAL	27436	27511	27617	27748	30512	30143	29798	29486	29185
2.APPLICATION									
1)INVESTMENT	0	0	0	59329	0	0	0	0	
2)LOAN PAYMENT-LONG TERM	5639	5639	5639	5639	5639	5468	3295	1664	0
TOTAL	5639	5639	5639	64968	5639	5468	3295	1664	0
CASH SURPLUS	21798	21873	21978	-37220	24873	24675	26503	27821	29185
ACCUMULATED SURPLUS	202590	224463	246441	209222	234094	258769	285272	313094	342278
DEBT-SERVICE RATIO	3.9	4.1	4.2	4.4	5.0	5.3	8.9	17.7	

ANNEX 7-6

BASE CASE PHASE 1 ONLY TABLE CASH FLOW STATEMENT

IRR=8.93

DESCRIPTION	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1.REVENUE																				
1)Marketing Program Overseas					8577	10771	13294	16094	19146	22375	24241	26133	28202	30320	32540	32540	32540	32540	32540	32540
2)Marketing Program Domestic					518	594	680	779	779	779	779	779	779	779	779	779	779	779	779	779
3)Spot Advertising					1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120
4)Rentals of Restaurant etc.					36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
5)Government Refunding					8308	7558	6964	6493	6119	5822	5586	5398	5250	5132	7595	6993	6516	6137	5836	5597
TOTAL					18558	20079	22093	24522	27199	30131	31762	33466	35386	37388	42070	41468	40991	40612	40311	40072
2.INVESTMENT																				
1)Building Construction		41351	31014	31014																
2)Broadcasting Facilities and Installation		18070	13554	13918																
3)Engineering Services	3207	1379	1034	1683																
4)Contingency	268	3968	2977	3039																
5)Facility Renewal														36434						
TOTAL	3475	64768	48579	49654										36434						
3.OPERATING EXPENSE																				
1)Direct Cost					8188	8285	8414	8559	8646	8753	8792	8846	8905	8965	9043	9029	9029	9029	9029	9043
-Direct Personnel Wage					2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673
-Programming Cost					4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634	4634
-Utility Cost					282	282	282	282	282	282	282	282	282	282	282	282	282	282	282	282
-Sound Tape Cost					14					14					14					14
-VTR Tape Cost					533	637	757	892	979	1072	1125	1179	1238	1298	1362	1362	1362	1362	1362	1362
-Marketing Commission					52	59	68	78	78	78	78	78	78	78	78	78	78	78	78	78
2)Indirect Cost					2056	2061	2067	2074	2079	2084	2086	2089	2092	2095	2099	2098	2098	2098	2098	2099
-Management Personnel Wage					222	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222
-Maintenance and Repair					1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346
-Miscellaneous Cost					488	493	499	506	511	516	518	521	524	527	531	530	530	530	530	531
TOTAL					10244	10346	10482	10634	10725	10837	10878	10935	10997	11060	11141	11127	11127	11127	11127	11141
4.CASH SURPLUS	-3475	-64768	-48579	-49654	8315	9733	11612	13888	16474	19295	20884	22532	24390	-10106	30929	30342	29864	29486	29185	28931

(UNIT:1000 L.E.)

2007	2008	2009	2010	2011	2012	2013	2014	2015
32540	32540	32540	32540	32540	32540	32540	32540	32540
779	779	779	779	779	779	779	779	779
1120	1120	1120	1120	1120	1120	1120	1120	1120
36	36	36	36	36	36	36	36	36
5407	5257	5137	5042	7595	6993	6516	6137	5836
39882	39732	39612	39517	42070	41468	40991	40612	40311
			59329					-51418
			59329					-51418
9029	9029	9029	9029	9043	9029	9029	9029	9029
2673	2673	2673	2673	2673	2673	2673	2673	2673
4634	4634	4634	4634	4634	4634	4634	4634	4634
282	282	282	282	282	282	282	282	282
				14				
1362	1362	1362	1362	1362	1362	1362	1362	1362
78	78	78	78	78	78	78	78	78
2098	2098	2098	2098	2099	2098	2098	2098	2098
222	222	222	222	222	222	222	222	222
1346	1346	1346	1346	1346	1346	1346	1346	1346
530	530	530	530	531	530	530	530	530
11127	11127	11127	11127	11141	11127	11127	11127	11127
28756	28605	28485	-30939	30929	30342	29864	29486	80603

PART 8

RECOMMENDATION ON ADMINISTRATION, ORGANIZATION AND DAILY OPERATION OF THE NEW TV CENTER

8. RECOMMENDATION ON ADMINISTRATION, ORGANIZATION AND DAILY OPERATION OF THE NEW TV CENTER

8-1 Management

8-1-1 Managirial body

From the view point of the broadcasting policy of the Egyptian Government, it is recommended that the New TV Center should be managed on the basis of the governmental enterprise and its position should be one part of the existing ERTU's organization.

8-1-2 Management

The New TV Center will be quite different from the other existing sectors in ERTU's Cairo Headquarter in terms of self dependent managirial body.

The main point is the self-supporting system of its managirial operation. In order to stabilize the operational management of the New TV Center, the initial investment of the government, expansion of the program marketing, stable supply of the marketed programs to the market and the efficient operation of the Center will be indispensable.

8-2 Organization and Personnel Plan

The New TV Center, in which yearly 2,100 hours of various programs will be produced, shall have a functional organization, and the personnel plan must be well considered in order to carry out the smooth and efficient operation.

8-2-1 Organization of the New TV Center

Refer to Table 8-1.

(1) Program Marketing Office

Program markting is one of the most important function of the New TV Center in order to secure the annual revenue, and it will contribute to the self-dependence of the New TV Center.

This office must endeavour to expand its market in domestic use and especially in foreign countries not only Arabic countries but also non-Arabic countries.

(2) Production Coordinate Dep.

This Dep. is important to well organize and coordinate each program production requirement such as allocation of studio, EFP equipment and post production equipment, together with planning of program production schedule throughout the year and out-line of each production's process to aim at the most effective operation in terms of optimum usage of the produciton staff and the equipment.

(3) Production Support (Tech.) Dep.

The technical staffs concerned directly in program production belong to this Department.

The staffs take charge of daily operation of the program production and also light maintenance work.

Under this Dep., several classified Sections are put in position, such as Camera-man section, Light-man section, Audio mixer section and so on.

The head of each section should have responsibility of effective and efficient management of the personnel.

Table 8-1

- Chairman
  - Program Prodcution Div.
    - Production Coordinate Dep.
    - Drama Production Dep.
    - General Program Production Dep.
    - Production Support(Tech.) Dep.
    - Production Support(Artist) Dep.
  - Engineering Div.
    - Engineering Planning Dep.
    - Technical Operation Dep.
    - Building Operation & Maintenance Dep.
  - Administration Div.
    - Secretariat Office
    - Finance Managing Office
    - Program Marketing Office
    - Open-area Office
    - General Affairs Office

To fix the staffs to specific studio or specific program will cause loss of manpower.

These technical staff sections are desirable to be organized within the same Dep. in order to make a smooth team work with each other in the program producing operation.

(4) Engineering Planning Dep.

This Dep. is in charge of Construction of building and studio facilities together with renovation planning, maintenance planning and trouble countermeasures of all those equipments. Moreover, collecting requests and opinions from Program Production Div., and organizing them, this Dep. is to be the engineering window office for outside organizations.

(5) Technical Operation Dep. and Building O & M Dep.

Technical Operation Dep. (T.O.C) is to operate and maintain the centralized equipments for program production and copy VTR's for program marketing in T.O.C. and in addition to operate special studio such as utility studios, and to be in charge of maintenance jobs of whole those related production facilities.

Building Operation and Maintenance Dep. is in charge of air-condition facilities, electric power supply and telephone in terms of the New TV Center building equipments.

8-2-2 Transferring of Daily Operational Rights and Assignment of the Subordinates.

In order to make the daily operational procedures efficient, according to the hierarchic organizational levels such as Div. Dep. and Sec., the head of theeach level has to be given appropriate rights to make the daily opration decision making and at the same time by assigning his subordinates during his absence. There must not be the case that the daily operational process is hazarded and or delayed by lack of the decision during the head's absence.

In other words, not to centralize the decision makings to one or two top managers, allocating the rights to the middle levels concerned must be considered in order to rationalize the daily activities, especially the cost control jobs in the New TV Center.

And, of course, those responsibilities and rights shall be clearly notified to the related staff.

This is most essential to proceed the program production effectively and smoothly with regard to the necessary daily cost control. Because there are naturally many modifications and fluid decision making necessary in the program production.

In case that it is necessary to get the addmissions of the top manager even for miner things, the daily operation will be delayed and hazarded very much, so that studio production of facilities and the man-power will be wasted a lot. Therefore transfering the rights to the suitable subordinates is very important to carry out the daily operation smoothly and effectively.

8-2-3 Personnel Recruitment and Training

For TV program production, well experienced skills are necessary to the production staff.

In order to meet the construction phases of the New TV Center, the required staff recruitment and the preparatory training should be carried out deliverately on respective the purposes of Phase 1 and Phase 2 operations.

To achieve the smooth recruitment, the following 3 methods are to be considered in a well balanced form.

(1) To shift well skilled staff of the existing ERTU Cairo TV Center, and to assign them as the core staff of each production Sec. of the New TV Center.

(2) To recruite already skilled persons from outside TV production organizations in Egypt as well as foreign countries.

There are many Egyptian broadcasters actively working in the Middle East countries, and some of them would be willing to join the New TV Center's operation. But the salary basis at the New TV Center must be attractive to those people.

(3) To start general training course for newly recruited freshman staff as early as possible.

8-3 Effective Program Production and the Daily Operation

8-3-1 Simplified payment procedures as regard to Program Production.

Here, regarding 2 kinds of payment which are one for performers in the production and the other for rent or purchase of goods for the production comodities, those orders are arisen from each program producer and through each section's Chief or the acting chief, Budgetary Affairs Sec of Program Coordinate Dep., and Finance Managing Office of Administration Div. go to the payment window office, thus to make one line flow of the order to the payment can contribute to the smooth and effective operation of the Center.

In other words, it is utilizing the merit of slip system to the maximum extent. And at the same time, by combining the "Transferring the right to the subordinates" stated in 8-2-2, daily operation will be much more easier.

Thus, one payment window office can process two kinds of payment mentioned above. Moreover, if bank accounting system is utilized, the clerical works would be more economized.

8-3-2 Rationalization of Production Process

To realize smooth and effective program production the following 3 points are very important.

1. Well prepared production cinario

2. Complete notice of art designer's intention

3. Fully understanding between program producer and the production supporting staff.

These are essential not only to obtain a high quality level of the program but also to reduce the occupying hours of studio and the production equipment.

a. Production Cinario

Production cinario is essential not only for describing the program story and each performer's talks, but also for complete notice of the producer's intention to the production staff.

Usually, number of recording cut of 30 minutes drama is reached to 100-200, and for the each cut, assignment of the studio camera such as A, B or C camera, camera operating works such as panning, tilt and zooming, supposed picture to be taken by the camera, actions of the performer and his looks, position of the performers and the relation among the performers and the scenary set, talks and narration with the background music, effect sounds and special effect montage etc. are to be described on the cinario.

Cinario has to be made as early as possible so as to distribute not only to the producer program director and the assistants but also to artistic designer, technical staff and the performers, thus those staff can recognize his role in the production and prepare himself by reading the producer's intention beforehand. This is useful to reduce the studio recording time and to realize the smooth production at studio.

Of course, it is the same thing for general program production.

b. Complete Notice of Art Designer's Intention

After reading cinario, the designer makes consulting with the producer about the practical scenary settings and gives his directions to the staff of work-shop and accessaries.

Here, the below 2 designing blue prints are essential.

(i) Studio Floor Sets Planning

In this blue print, relationship between the position of lighting equipment and the scenary set is drawn so that the program director can consider the performers and the camera's positioning and its shooting angle.

And the technical staff can make the microphone arrangement and lighting planning.

(ii) Scenary setting Planning

This blue print defines the each part made in the work shop with the measures connecting method of each part, the colour to be paint and the material etc.

On the basis of these two blue prints, works in the work-shop and scenary setting works in the studio can be smoothly carried out, and the post amendment, if there, can be reduced to minimum.

c. Fully understanding between producer and the technical staff

At least 2-3 days before the studio recording day, a deliberative communication between the producer side and technical staff has to be conducted.

This meeting is proceeded by showing the cinario and the blue print above mentioned item (b)(i), and during the meeting the delicate intention of the producer can be throughly understood among all the production staff and at the same time, practically impossible point can be checked and the counter measures will be deviced in the earlier stage.

By doing as mentioned above, smooth and effective studio production can only be obtained.

<u>Although, in the New TV Center, at least 30 minutes drama recording within a day is planned, unless those production procedures, it is not possible to achieve the 30 minutes recording.</u>

8-3-3 Effective Operation of Technical Staff in Program Production.

(1) Technical staff involved in a program production should know thoroughly all the necessary activities requested to the each crew by the time of recording, through deliberate pre-discussion among the crews including program producer and the technical staff, so as to proceed the next camera rehearsal smoothly.

(2) By dint of recent electronic development, such as highly stabilized characteristics and plus the auto-set-up control system of the camera and VTR, adjustments of those studio equipments are very easily done in short time.

The job which mainly spends the adjustment time is the light-setting (L.S.) operation in the studio work, so that it is the key-point to shorten the L.S. work for the smooth and effective studio production.

L.S. work consists of three parts which are changes of each light position and the angle, control of the brightness and its colour. During the operation, the most time spending and elaborative work is to replace or add the lighting equipment, therefore pre-arranging the equipments a little more in number with the basically predetermined lighting patterns according to each studio's condition could be recommended, so that replacing each equipment in each time shall not be required.

(3) Camera rehearsal (CR) is a chance to simulate a plan of production process and the schedule which the production crews previously discussed in the prior meeting as well as to seek the better operation. Threfore, still at this step, misunderstanding between the producer and the cameramen, and spending time to confirm while they are discussing should be avoided.

(4) In order to carry out those jobs, authorized positioning of Technical Director (T.D.) would be recommendable. Usually Vision Mixer is in charge of the T.D. function who takes care of whole the technical crew's activities as well as assuming the responsibility for the technical problems during the production and also he replies to the technical consultation with the program producer.

Thus, T.D. could contribute to the efficient operation together with the better equality of the final program.

8-3-4 Adoption of Off-Line Editing Method

There are two different kinds of editing method, one is using the originally recorded VTR tapes while searching the cut-out and in points and then dubbing to the master tape, this method is now being done in ERTU Cairo TV Center. This system has a merit of one stage dubbing operation, however, editing operation always can not be done by the initial planning and requires many times of try and review procedures, in due course it is inevitable to damage the original tape and also to occupy the expensive editing equipment for a long hours.

The other off-line editing system is aiming at avoiding such demerits of on line method by using cheaper VTRs when producer decides the editing point, so that especially effective on drama program which has many number of cut points and useful for the effective production.

8-3-5 Videonization of Film Programs

Film technology has still some features like wide screen projection and high speed shooting in comparison with TV technology.

But these features will be diminished in the near future by the rapid development on electric video technology.

Even at present, video production using VTR is considered to have many mexits than film production in terms of the clearness, color reproducing characteristics, quick play, low cost operation and so on, therefore, not only in Japan but also world widely it has become main production method of TV programs and more and more the tendency will be significant.

Taking these facts into consideration, it is necessary not to sow the seeds of trouble in the future.

8-3-6 Operation of C.C.U. (Camera Control Unit)

TV camera so far required the operator to adjust the deviation caused by switch-on and other unstable elements.

However, recently made cameras are automated by the self contained micro computer to make initial adjustments within several minutes and having very small deviation factor by dint of development of the circuity and the parts so that continuous manual adjustments are not necessary except iris control of the camera lens during the program production.

Consequently, rather than conventional concept to suppress the color deviation, new concept to create the color for instance light operator share the role of CCU operater and compensate the illumination excess or lack, would be preferable in an effective studio operation.

8-3-7 Operation personnel of EFP

At present in Cairo Broadcasting Center, even in case of the studio drama production, the EFP (outdoor portion of the drama) is operated by the staff of the outdoor section.

It is recommendable that the studio production staff should be in charge of the EFP portion of the studio program from the viewpoint of program consistency and efficient operation. In order to achieve this operation, produc-tion system (including personnel management system and organization) should be considered.

APPENDIX

APPENDIX

SCOPE OF WORK

FOR

THE STUDY

ON

THE NEW TELEVISION CENTER AT 6TH OCTOBER CITY

FOR

PROMOTING EDUCATIONAL AND CULTURAL TV PROGRAM

IN

THE ARAB REPUBLIC OF EGYPT

AGREED UPON BETWEEN
EGYPTIAN RADIO AND TELEVISION UNION
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Cairo, 25 February, 1985

Hussein Enan

HUSSEIN MOHAMED ENAN
President,
Egyptian Radio and
Television Union
25/2/1985

Ichiro Shoji

ICHIRO SHOJI
Leader of the Preliminary
Study Team,
The Japan International
Cooperation Agency

I. INTRODUCTION

In response to the request of the Government of the Arab Republic of Egypt (hereinafter referred to as "Egypt"), the Government of Japan has decided to implement the study on the New Television Center at the 6th October City (hereinafter referred to as "the Study") in accordance with Agreement on Technical Cooperation between the Government of Japan and the Government of Egypt signed on June 15th, 1983.

The Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperartion with Egyptian Radio and Television Union (hereinafter referred to as "ERTU") and the authorities concerned of the Government of Egypt.

The present document sets forth the Scope of Work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objective of the Study is to draw up a plan of a new TV program production center which shall promote educational and cultural programs and contribute to development of living standard throughout the country.

The plan consists of the following items;

(1) To formulate a plan of a new TV program production center which shall be constructed in the 6th October City including basic design and preparation of an implementation schedule.

(2) To recommend its effective operation and management system

III. OUTLINE OF THE STUDY

1. Study area
   The 6th October City

2. Contents of the Study

A. Data collection, Analysis and Field survey

The team shall carry out data collection, analysis and field survey on the following items;

(1) Socio-economy
(2) Present condition of TV broadcasting
(3) Present program production plan and system
(4) Present condition and program production system of educational and cultural TV program
(5) Financial condition of ERTU
(6) Existing TV program production facilities
(7) Topographic condition and infrastructure in the construction site
(8) Construction method and material

B. Planning, Designing and Recommendation

Based on the results of above studies, the following items shall be undertaken by the Team.

(1) Review of the existing conceptual TV Broadcasting plan
(2) Formulation of an educational and cultural program production plan
(3) Basic design of the new TV program production center
(4) Cost estimate of construction and operation
(5) Preparation of an implementation schedule
(6) Recommendation of an effective operation and management system of the new TV center
(7) Financial analysis and social appraisal of the project

IV. SCHEDULE OF STUDY

The Study shall be undertaken in accordance with the attached tentative schedule.

V. REPORTS

JICA shall prepare and submit the following reports in English to the Government of Egypt.

1. Inception report (20 copies)
   at the beginning of the work in Egypt

2. Progress report (20 copies)
   at the end of the work in Egypt

3. Interim report (20 copies)
   within two and a half (2.5) months after completion of the work in Egypt

4. Draft final report (20 copies)
   within four and a half (4.5) months after completion of the work in Egypt

5. Final report (50 copies)
   within two (2) months after receiving the comments on the Draft Final Report

VI. UNDERTAKING OF THE GOVERNMENT OF EGYPT

The Government of Egypt will accord privileges, immunities and other benefits to the Japanese study team (hereinafter referred to as "the Team") in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of the Arab Republic of Egypt.

1. To facilitate smooth conduct of the Study, The Government of Egypt shall take necessary measures:

   1) to inform the members of the Team of safety requirements in the course of the Study, and take precautions when it is required

2) to permit the members of the Team to enter, leave and sojourn in Egypt for the duration of their assignment therein, and exempt them from consular fees

3) to exempt the members of the Team from taxes, duties and any other charges on equipment, machinery and other materials brought into Egypt for the conduct of the Study as deemed necessary by ERTU

4) to exempt the members of the Team from income tax and other charges of any kind imposed on or in connection with any emolument or allowance paid to the members of the Team for their services in connection with the implementation of the Study

5) to provide necessary facilities to the Team for remittance as well as utilization of the funds introduced into Egypt from Japan in connection with the implementation of the Study

6) to secure permission for entry into any area deemed necessary for the conduct of the Study

7) to secure permission to take all permissible data and documents (including photographs) related to the Study out of Egypt to Japan by the Team

8) to provide medical services as needed, its expenses will be chargeable on the members of the Team

2. The Government of Egypt shall bear claims, if any arises, against the members of the Team resulting from, occuring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or wilful misconduct on the part of the members of the Team.

3. ERTU shall act as counterpart agency to the Team and also coordinating body in relation with other organizations concerned for the smooth implementation of the Study.

4. ERTU shall, at its own expense, provide the Team with the following, in cooperation with other relevant organizations:

1) . available data and information related to the Study
2) . counterpart personnel
3) . suitable office space with usual facilities in Cairo
4) . appropriate number of vehicles with drivers
5) . credentials or identification cards

VII. UNDERTAKING OF JICA

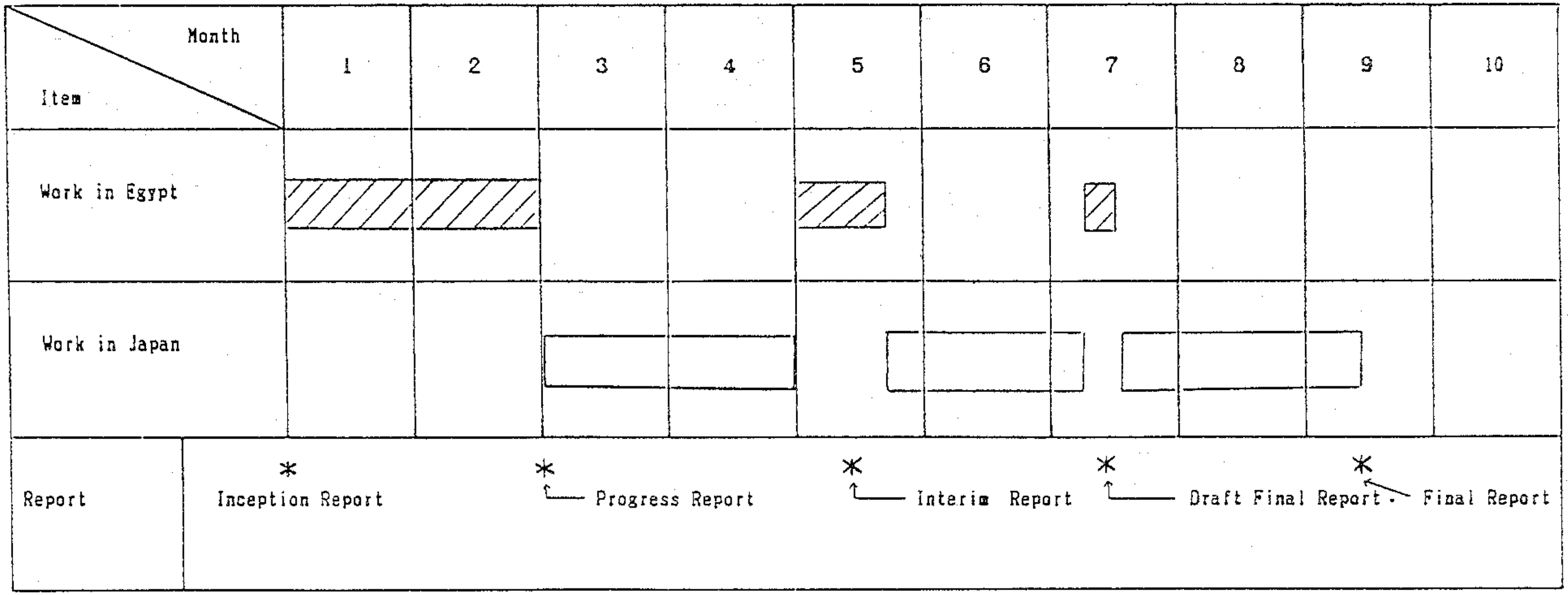
For the implementation of the Study, JICA shall take the following measures;

1) to dispatch, at its own expense, the Team to Egypt,
2) to bring, at its own expense, the equipment, machinery, and materials found necessary to carry out the Study and found not available in Egypt. These items will remain the Japanese Side property,
3) to pursue technology transfer to the Egyptian counterpart personnel in the course of the Study

VIII. CONSULTATION

JICA and ERTU shall consult with each other in respect of any matter that may arise from or in connection with the Study.

TENTATIVE STUDY SCHEDULE



JICA