

4. Operational Management

4.1 Organisation and Management

To cope with rapid institutional changes of the telecommunications sector, i.e. severer competition among operators and restructuring of the sector, strengthening, rationalising and modernising of the organisation and management of SLT are essential. Considering those circumstances, the following reform is recommended :

- a) Strengthening of customer services division;
- b) Introduction of MIS (Management Information System);
- c) Strengthening of finance and accounting division;
- d) Strengthening of corporate planning division;
- e) Strengthening of marketing and public relations.

4.2 Operational Efficiency

The number of staff per 1,000 DEL as of the end of 1994 was 42. It means low efficiency compared with 16 of both Thai and Malaysia in 1991. This low efficiency will result large operation and maintenance cost. In order to improve the present low efficiency, it is recommended that the following measures are to be taken :

- a) **Technology evolution consisting of :**
modernising network facilities, introducing computerised operation and maintenance system.
- b) **Restructuring operation and management consisting of :**
staff allocation meeting technology evolution and competitive condition on restructuring of the telecommunications sector.
- c) **Human resource development consisting of :**
improvement of telecommunication training facilities meeting various changes on technological, operational and managerial aspects,
and re-education of staff reallocated resulting strengthening and rationalising the organisation and management.

Improvement targets of the operational efficiency and the required number of staff are shown in the following Table 19-4-1.

Table 19-4-1 Improvement Targets of the Operational Efficiency

Item	Target Year			
	1994	2000	2005	2015
No. of DEL	181,000	667,000	979,000	1,663,000
No. of Total Staff	7,516	9,200	10,000	11,900
No. of Staff / 1000DEL	42	14	10	7

4.3 Institutional Issue

SLT has been playing the dominant role and will continue to keep the key position in the telecommunications sector of Sri Lanka. Accordingly, the central subject of Institutional Issues is how to reform, rationalise and activate the organisation of SLT. JICA Study Team recommends the following four options for the institutional reform of the telecommunications sector :

Option 1:

SLT will keep the status of public corporation and will provide the basic telecommunications services exclusively but will make continuous efforts to reform, rationalise and activate its organisations and operations.

Option 2:

SLT will continue to be a public corporation but private companies will be allowed to enter the field of the basic telecommunications services.

Option 3:

SLT will be privatised and will keep the position of the exclusive provider of the basic telecommunications services.

Option 4:

SLT will be privatised and the participation of private companies in the basic telecommunications services will be allowed.

The merits and demerits of the above four options are referred to in detail in Chapter 13. As stated in the Chapter, the privatisation is one of effective ways to enlarge, activate and enhance the telecommunications services in Sri Lanka, however, it is necessary to note that privatisation is not almighty and has certain demerits and shortages too.

It is thus important to study and describe the following necessary conditions to make the privatisation of SLT successful :

- a) Selection of the best partner;
- b) Enough consideration to the regions which are poor in the telecommunications infrastructure;
- c) Reform of organisation and management.

5. Technical Aspects

(1) Harmony of project implementation of switching systems and external plant

A due management on the outside plant completion time and line connection work force is desired so that the exchange resources can be used effectively as much as possible. It is understood that the exchange resources could not be used at the most, in spite of a large number of waiters, because outside plant installation could not follow duly the rapid increase of exchange capacity. It was learned also through interviews with officials at site that there were many waiting applicants out of the normal service area of exchange, who had waited for several years, for the SLT network could not cover all the populated areas always. This may be a factor hampering a high use rate of the resources.

(2) Decentralisation of switching facilities

Study Team recommends decentralisation of capital function in telecommunications network and enforcement in telecommunications facilities to guarantee a safer telecommunications network as the leading entity providing general telecommunications services in the country. Study Team suggest to introduce a new ISC units and a new TSC unit to a new location to support Colombo TSC.

(3) Introduction of new switching units

Study Team recommends introduction of new switching units of the following switching centres to meet the increase in traffic, the installation of which should be completed by the 2000.

- a) One unit of ISC switch;
- b) One unit of NSC switch;
- c) Three units of TSC switch;
- d) Three units of local tandem switch;

(4) Coexistence of switching units at a same building

Study Team recommends SLT to form a switching centre by two or more switching units for a safer network, in case of failure, taking opportunities of exchange capacity expansion.

(5) Giving a new role to NSC

Study Team recommends SLT to give a new role to a NSC switching unit for its role is decreasing as TSC capacity is increasing. The new NSC switching unit should have function to serve as a gateway switch to Intelligent Network layer at an opportunity.

(6) Reference clock distribution

Study Team recommends SLT to distribute its reference clock pluses to the other network operated by private network providers, if they need them. The synchronisation of all the digital exchanges will be a most important theme in very near future for SLT is replacing all the exchanges in SLT network and is expected to make interconnection with other networks in 1997. It is preferable all the digital exchanges are synchronised under only one reference clock for a higher grade of service.

(7) Signalling system CCS No. 7

Study Team recommends SLT to use the specifications of CCS No. 7 recommended by ITU-T as its national standards. Such specifications are widely supported by leading manufacturers in the world. The time slot for the signalling link should also be TM No. 16. It will make SLT free from restraints of bidding.

6. Financial Issues

Well-coordinated construction of economic infrastructure, including electricity, transportation and telecommunications services, is a fundamental requirement for Sri Lanka to achieve sustainable economic growth and continued development. Given the country's strong need for a well-organised telecommunications infrastructure, associated capital requirements are expected to grow substantially once implementation of the M/P begins. In view of current government policy, however, it seems both inappropriate and nearly impossible that sufficient public funds, including government subsidies, should be capable of covering the huge expense, the total investment of which will exceed US\$2,200 million refers to the M/P. The government of Sri Lanka (GOSL) can expect to alleviate the burden of public liabilities by introducing private capital as well as more efficient, market-based management practices, such as cost reduction measure. At the same time, private investors will be exposed to a number of risks, including (to name a few) strong government intervention in tariff policies, a weak legal framework, a lack of any guarantees securing tariff income. These concerns must be clarified if private investors are to be attracted. GOSL (Government of Sri Lanka) faces an urgent requirement to take prompt actions to rectify these problems.

Profitable projects concerning cellular and mobile telephone operations could be undertaken in such places as the Colombo metropolitan area by introduction of private capital like BOT and BOO. However, BOT and BOO operations are not suitable for other low-return projects. For these low-return projects, which are also included in the proposed M/P, use of public funds will be appropriated. This option, which uses public funds once realised, will reduce the investment risk of private enterprises and prompt an inflow of private capital. GOSL and SLT should work to determine the best funding plan to achieve the goals of M/P, and then request participation from foreign countries.

6.1 Introducing the Principle of Competition

One highly regarded approach to invigorating the currently stagnant telecommunications sector would be to introduce the principles of competition and the market economy "how are these different from each other?", so called the principle of market competition. The government is also supportive of such a move, which would encourage participation by foreign investors. At present, foreign investors are meticulously protected under their BOI status and are exempt from a variety of duties, while SLT faces various duties imposed on projects that it implements. This situation may be viewed as a large handicap in terms of project profitability and may also be a factor forcing SLT to tilt toward

management strategies centering around projects offering short-term profitability, rather than pursuing the long-term strategic projects suggested by the M/P.

GOSL should take the initiative to construct a well-regulated investment environment as well as a large system to realise both fair competitive environment and appropriate telecom network refers to the legal system.

6.2 Required Public Funds

As indicated in Chapter 17, the profitability of this proposed investment is not high. Benefits i.e., cash flow intrinsically generated by the existing telecom network are consumed by new investment projects i.e., those under the M/P. Specifically, insufficient investment capital for the first three years of implementation of M/P will require increased capital support by the government or an infusion of private capital. If the government fails to provide more capital, private investment of US\$67 million will be needed, in addition to long-term loans amounting to US\$971 million. Most of the projects proposed by M/P yield low returns. Without a guarantee from GOSL, it is questionable whether private investors will respond to solicitations to lend the massive amounts required by these low-profitability projects. If GOSL extends support in this regard, the goals of M/P will be realised as the evaluations indicate, by the year 2015 a profit of US\$2,070 million and 1,6000,000 subscribers can be expected.

GOSL should thus adopt a far-sighted perspective and support the low-return projects proposed by M/P.

6.3 Trends with Golden Subscribers

Special attention should be paid to how "*Golden subscribers*", or *key customers*, utilise services, since such trends directly influence operational conditions. As the evaluation in Chapter 14 indicates, patronage from these subscribers is entirely responsible for the current sound operational conditions of what company SLT. Should tariff have to be revised, preliminary analyses will have to be conducted to determine the extent to which golden subscribers are affected, in order to avoid deteriorating profitability.

6.4 Bad Debtor Analysis

Securing revenues is on paramount importance for any business unit.

As subscribers increase and the component ratio of general subscribers becomes higher, more bad debtors can be expected. It will be necessary to monitor these bad debtors by category, and to attempt to determine the caused of delinquency. This also applies to government organisations. As SLT now uses disconnection as an effective weapon, all subscribers need to understand that the lines of delinquent subscribers may be immediately disconnected. In other words, moral enhancement is required. To this end, early-stage public relations activities will be both effective and crucial.

In addition, if the number of bad debtors should increase, an intra-SLT task force would have to be established to tackle the problem.

6.5 Utilisation of Key Customer Unit

SLT depends extensively on cross subsidies as a revenue source to maintain its performance. The SLT's revenues and subscribers are broken down in Tables 19-6-1 and 19-6-2.

Table 19-6-1 Number of subscriber for Consumption in December 1992

Interval in Rupee	International		National		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
0 - 200	121,495	92.39%	55,678	42.34%	52,947	40.26%
200 - 500	1,159	0.88%	25,781	19.60%	23,911	18.18%
500 - 1,000	1,438	1.09%	20,421	15.53%	19,216	14.61%
1,000 - 2,000	1,559	1.19%	15,640	11.89%	15,671	11.92%
2,000 - 5,000	2,273	1.73%	10,906	8.29%	12,822	9.75%
5,000 - 10,000	1,427	1.09%	2,325	1.77%	3,867	2.94%
10,000 - 20,000	973	0.74%	529	0.40%	1,582	1.20%
20,000 - 50,000	801	0.61%	103	0.08%	957	0.73%
50,000 -	380	0.29%	122	0.09%	532	0.40%
Total	131,505	100.0%	131,505	100.0%	131,505	100.0%

Source : SOFRECOM

Table 19-6-2 Total Revenue of Golden Subscriber

Year	TTL Revenue (Billed Amount)	Golden subscriber (Billed Amount)	Share(%)
1994	151,553	121,243	80.0%
1997	315,090	243,491	77.28%
2000	412,097	285,029	69.17%
2005	539,330	338,187	62.71%
2015	844,264	455,398	53.94%

There are two types of cross subsidies:

- a) International -- National calls
- b) Metropolis Colombo -- Regional

As is clear in the table, the cross subsidies derive mostly from Golden subscribers, who account for 85% of international calls and 70% of total revenue. SLT thus has to ensure that sufficient numbers of these subscribers remain enrolled.

Private WLL operators are expected to enter the basic telecommunication business in 1997. Private WLL operator, too, will find it essential to secure golden subscribers, who would compose a solid source of their revenues. Hence, a cutthroat competition for this market will be inevitable between SLT and these private WLL operators. As SLT is responsible for providing telecommunication services throughout the country, it must accordingly have a strategy to securing such subscribers. Should it fail to pursue this strategy, SLT would be cornered, incapable of attaining the goals set out in its master plan. Recognizing this risk, SLT has established a key-customers unit. Its structure and relevant functions are summarized in the chart below.

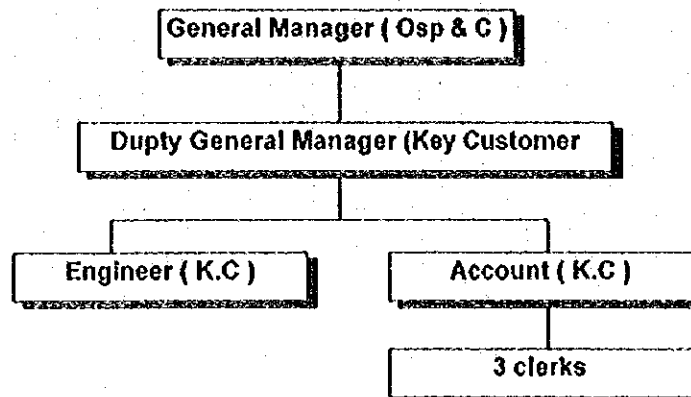


Figure 19-6-1 Key Customer Unit of SLT

Job description is summarized as follows :

- (1) Identification of subscribers whose bills are more than Rs. 50,000 per month.
- (2) Identification of customers having more than 10 DELs.
- (3) Identification of customers having more than 5 DELs.
- (4) Identification of customers having more than one services.
- (5) Provision of first class service to key customers
(i.e. PABX, dedicated incoming and outgoing lines and reduction of spare lines.)
- (6) Computerization of commercial data in a PC database
- (7) adoption of special procedure for the clearance of Key Customer faults.
- (8) Specific traffic and quality of Service Follow up for Key Customers
- (9) Collection of arrears from telephone payment defaulters.

Despite these designated functions, however, the key-customers unit mostly deals with delinquent accounts at present. It should, however, principally focus on providing better services to golden subscribers instead.

Study team hereby propose the following steps to strengthen the unit and further clarify its functions:

- (1) To enroll potential golden subscribers registered on waiting lists;
To specify the characteristics of those potential subscribers, give priority to their application procedures, and thereby enroll them as soon as possible.
- (2) To collect and analyze information aimed at providing better services to golden subscribers.

Insofar as SLT continues to depend on cross subsidies, it should take steps other than reducing relative tariffs in order to improve services to golden subscribers. For this purpose, a management information system(MIS) should be established as soon as possible. In additions, to take full advantage of these golden subscribers, information collected by individual sections must be used company-side and reflected in SLT's management strategy.

6.6 Significant Imbalances of Profit and Loss among the Services Identified.

International calls cannot be put through unless local networks are used at both ends as access routes to subscribers. In accounting for SLT's revenues from international calls and domestic calls, incomes from these access routes must be transferred from international calls to domestic calls.

Table 19-6-3 Current Operating Revenue Structure

Items	Unit Rs '000			
	1993	Share %	1994	share %
Local call	1,759,129	26.5	2,077,729	27.4
International call	1,718,100	25.8	2,078,382	27.5
International settlements	2,374,706	35.7	2,530,694	33.4
others	796,661	12.0	887,825	11.7
Total	6,648,596	100.0	7,574,630	100.0

As shown in Table 19-6-3, there are substantial disparities in income among types of telephone services. These disparities are considered to be directly reflected in SLT's financial balances, but exact figures are not available because expenditures are not itemized by individual service type. The existence of such disparities, however, is evident. Hence the "Tariff System Re-balancing Theory," calling for lower rates on profitable services and higher rates on loss-generating services.

SLT's current tariff system is saddled with a structural problem that necessitates that the company compensate for its loss on local services with profits from international calls. If private operators had been allowed to freely compete for international services, it would have been extremely difficult not only to ensure fair competition between SLT and private operators, but also for SLT to provide local services nationwide on a stable basis.

This is because the introduction of open competition would have placed SLT, burdened as it is with the handicap of cross-subsidizing local services with international services, at a disadvantage relative to private operators, making it impossible for the company to continue cross-subsidizing itself and consequently hampering the expansion of networks. *In this sense, the Sri Lanka government made a wise decision in limiting private operators to entering the local services in 1997.*

However, the practice of cross-subsidizing is an expedient that should be phased out as the Sri Lankan economy develops and becomes more open, and as income standards rise. Which is to say, a cost-based rebalancing of the tariff system is eventually inevitable.

For the present, as an intermediate step, tariff incomes, costs, and overhead expenses must all be determined for each type of telephone service, using existing accounting methods, and any significant imbalances of profit and loss among the services identified. This accounting system should be promptly introduced by SLT.

7. Impacts by Participation of Private WLL Operators

From the users' point of view, this impacts by participation of private WLL operators will represent a telecommunications revolution of sorts. Service providers in the sector, on the other hand, must try to meet the high expectations of users, and even to surprise them slightly as well, by improving their service quality. Given similar features and performance, users will not care if a telephone is wired fixed telephone or WLL so long as they can make a call by picking it up and dialling. All they need is a voice telecommunications capability; they have no interest in the support structure involved.

7.1 Sound Operation of Sri Lanka Telecommunications Sector

To maintain WLL quality, it is essential to ensure the financial stability of private operators. Assuming that prospective purchasers of WLL will have income demographics similar to current SLT subscribers, competition will have to occur at around the current price level. WLL operators will be obliged to pay SLT a access charge, and under the current tariff system where cost structure is irrelevant, the level of this fee is expected to have a substantial influence on the financial performance of WLL operators. *SLT therefore should first analyse the circumstances carefully and then select an operator access charge allowing both SLT and the private parties to operate on a sound basis.*

In order to make way for fair competition in national services, the current structure of SLT's national services, which are cross-subsidised by its international services, should be abolished before the onset of competition with WLL operators, who offer no international services. The point of introducing competition is to minimise supply costs by inducing cost-cutting competition among operators, and thus to reduce tariffs for users down to the lowest possible level.

However, the current national service tariff in Sri Lanka is low enough. This low tariff may well be the reason that demand for phone lines is expected to reach the 400,000 mark in 1996. To ensure sound, reliable operations by WLL operators under these circumstances, a bulk discount on operator access charge rates should be offered and SLT's tariff system should be rebalanced. There should also be consideration given to a possible substantial increase in national call fees.

Eventually it will be necessary to introduce a gradual rebalancing of the tariff system with the goals of utilising the beneficiary payment principle more thoroughly and of improving the efficiency of resource allocation.

7.2 Establishment of Fair Competitive Market

In accordance with the government decision in 1995, it was only natural that SLT would become public company, and that SLT and private WLL operators would both enter the basic telecommunication service market. Despite rapid changes in the sector itself, the final goal of acquiring 2,000,000 subscribers by the year 2015 remains unchanged. *However, if this goal is to be achieved, there is no room for failure by either the private WLL operators or SLT. Indeed, unless both parties thrive, this goal will not be achieved.*

As noted below, it would be desirable if a fair, competitive market environment could be established where both parties could freely compete.

- (1) To apply the BOI status to SLT after privatisation
- (2) To establish proper inter-operator access charges

The Sri Lanka telecom sector is similar to SLT in its profit structure. There are currently cross subsidies between international services, which account for 70% of total income, and domestic services. Since these private WLL operators are not allowed to participate in international services, they will not be in a position to earn profits. Once inter-operator access charges are established, these WLL operators will face a very difficult situation without cross subsidies. **Since private WLL operators use wireless fixed telephones, they must compete mostly with SLT wired fixed telephones.** As long as SLT maintains very low tariffs on domestic services, WLL operators will in turn need to set tariffs even lower in order to be competitive. It is thus clear to everyone how important the

establishment of appropriate access charges is to private WLL operators. Incidentally, this access charge implies a generous discount in international service tariffs.

Access charges are generally determined based on careful calculations and analyses of costs. Thus, listing of cross subsidies is strictly forbidden. Under the current tariff system in Sri Lanka, however, the market cannot continue to function in the absence of cross subsidies.

7.3 Cross Subsidy

Given the above situation, GOSL must secure advice from consultants, take steps to ensure that telecommunication services are both reliable and available to all, and establish inter-operator access charges at a level that will promote market competition. Although the current cross subsidies violate the principle that a service's beneficiaries should bear the relevant costs, they can be permitted to continue because SLT contributes by expanding access to telephone services to general subscribers nation-wide, and because these subsidies serve to re-distribute income from the rich to the poor.

In principle, cross subsidies are permissible in that the tariffs on international services greatly exceed the cost of supplying such services, while those on domestic services are below the cost of supply. Despite the common argument that tariffs should be established on more of a cost basis, any increase is projected to affect only one category of subscribers: general subscribers who spend less than US\$200 annually, mostly on domestic calls. It may be the case that these general subscribers, who account for more than 80% of the demand for telephone services, could enrol only at the current tariff level.

There is a pressing need to examine the current living standards of general subscribers, restructure the tariff system, and maintain the price of telecommunication services at a level accessible to everyone. In addition, it is necessary to recognise that telephone services in Sri Lanka have traditionally been far satisfactory.

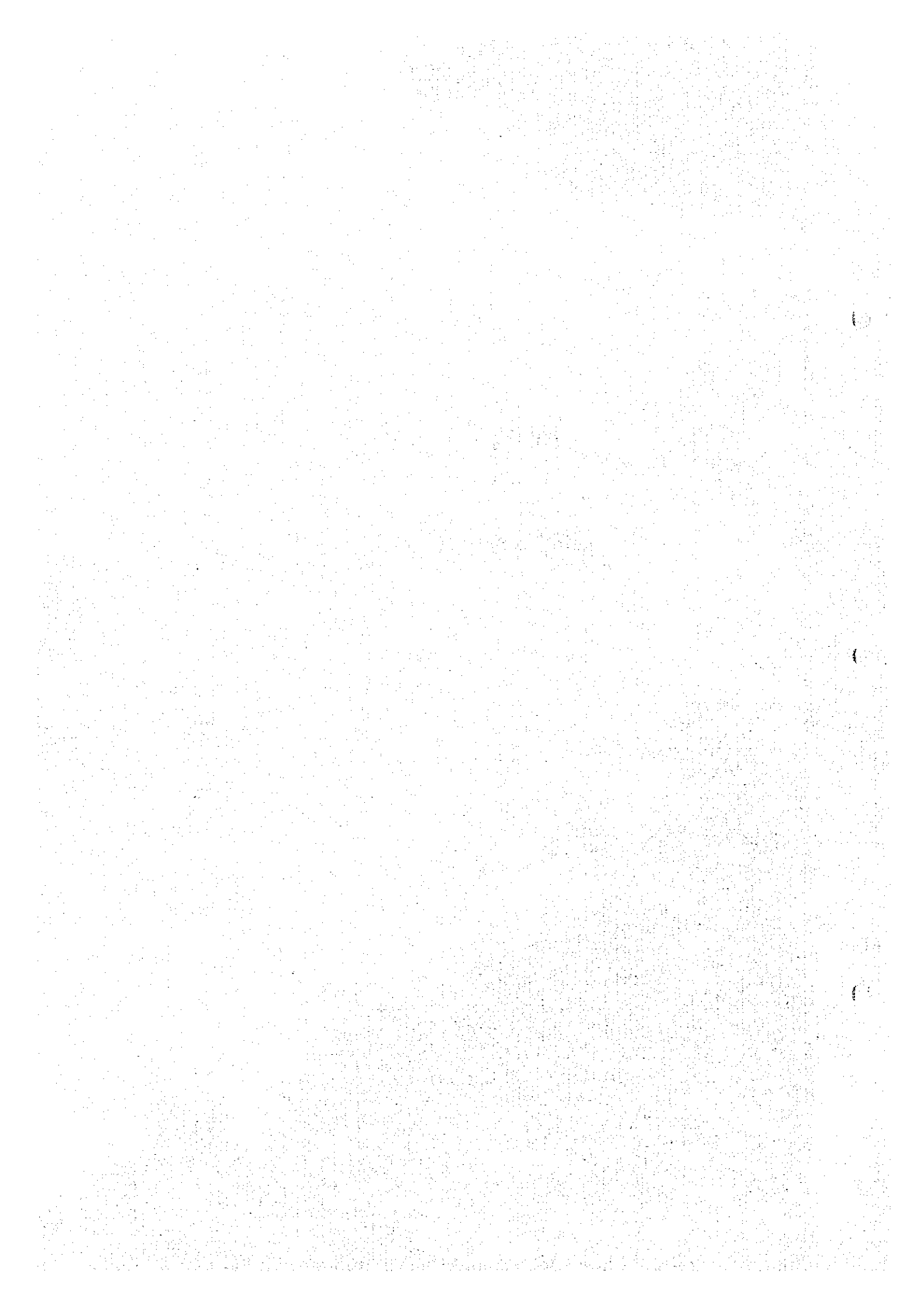
8. Review of the Master Plan

This master plan covering the period from 1998 to 2015 has been prepared mainly based on the past data, present conditions and future trends on socio-economy and telecommunications of Sri Lanka as of 1994 - 1995. It is hoped that this master plan will be

useful and beneficial for Sri Lanka to the future. However, when remarkable changes on preconditions on preparation of this master plan were found in the future, it is recommended that this master plan is to be reviewed and revised based on the latest conditions.

ANNEX OF VOLUME-II

MINUTES OF MEETINGS

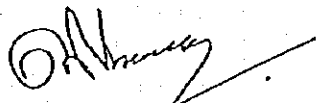


SCOPE OF WORK
FOR
THE STUDY
ON
TELECOMMUNICATIONS NETWORKS
IN
THE DEMOCRATIC SOCIALIST REPUBLIC OF
SRI LANKA

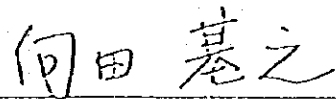
AGREED UPON BETWEEN

SRI LANKA TELECOM
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Colombo, December 20, 1994



Mr. MAHASIRI FERNANDO
Chairman
Sri Lanka Telecom



Mr. Motoyuki HUKODA
Leader of the Preparatory
Study Team
Japan International
Cooperation Agency

I. INTRODUCTION

In response to the request of the Government of the Democratic Socialist Republic of Sri Lanka (hereinafter referred to as "the Government of Sri Lanka"), the Government of Japan has decided to implement the Study on Telecommunications Networks in Democratic Socialist Republic of Sri Lanka (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Democratic Socialist Republic of Sri Lanka.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are the followings:

1. To formulate a long term plan for the development of telecommunications networks in the Democratic Socialist Republic of Sri Lanka, up to the year 2015 (PHASE I Study).
2. To conduct a feasibility study for the identified priority project(s) based on the PHASE I Study (PHASE II Study).

III. Study Area

1. The Study area of the PHASE I Study covers the whole of Sri Lanka.
2. The Study area of the PHASE II Study will be selected based on the result of the PHASE I Study.

IV. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study will cover the following items.

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{PHASE I}

1. Basic Study

(1) Collection and review of data/information

- a) Social and economic conditions and statistics
- b) National Development Plans
- c) Previous studies on telecommunications
- d) Present status of telecommunications services
- e) Development plans and on-going projects for telecommunications services
- f) Existing laws, regulations and technical standards related to telecommunications services
- g) Present situations of operation and management of telecommunications services
- h) Present situations of telecommunications facilities and networks
- i) Other data/information related to the Study

(2) Field survey

- a) Social and economic conditions
- b) Existing telecommunications facilities and services
- c) Other surveys related to the Study

(3) Analysis and evaluation

- a) Demand and traffic forecasts
- b) Trend of new technologies and new telecommunications services
- c) Planning framework (target year, planning area, service level)

2. Formulation of the Telecommunications Networks Development Plan

- (1) Telecommunications networks plan
- (2) Facilities plan
- (3) Operation and maintenance plan
- (4) Organization and institutional plan
- (5) Human resource development plan
- (6) Project evaluation
- (7) Implementation plan
- (8) Identification of the priority project(s)

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3. Feasibility study on the priority project(s)

- (1) Confirmation of the planning framework
 - a) Target year
 - b) Planning area
 - c) Service level
 - d) System components
- (2) Facility improvement and expansion plan
 - a) Transmission systems
 - b) Switching systems
 - c) Outside plant
 - d) Cable networks
- (3) Operation and maintenance plan
- (4) Institution, organization and management plan
- (5) Cost estimation
- (6) Project evaluation
 - a) Financial analysis
 - b) Social and economic analysis
- (7) Project implementation programme

V. STUDY SCHEDULE

The Study will be carried out in accordance with the tentative work schedule attached in the ANNEX.

VI. REPORTS

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

1. Inception Report

Twenty (20) copies at the beginning of the first work in Sri Lanka.

2. Progress Report

Twenty (20) copies at the end of the first work in Sri Lanka.

3. Interim Report

Twenty (20) copies at the beginning of the second work in Sri Lanka.

4. Draft final Report

Twenty (20) copies at the beginning of the third work in Sri Lanka.
The Government of Sri Lanka shall submit its comments within one (1) month after the receipt of the Draft Final Report.

5. Final Report

Forty (40) copies within two (2) months after JICA's receipt of the said comments on the Draft Final Report.

VII. UNDERTAKING OF THE GOVERNMENT OF SRI LANKA

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

- (1) to secure the safety of the Japanese Study team (hereinafter referred to as "the Team"),
- (2) to permit the members of the Team to enter, leave and sojourn in Sri Lanka for the duration of their assignment therein, and exempt them from foreign registration requirements and 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 and out of Sri Lanka for the implementation of the Study,
- (4) to exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances 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 remittances as well as utilization of the funds introduced into Sri Lanka from Japan in connection with the implementation of the Study,
- (6) to secure permission for entry into private properties or restricted areas for the implementation of the Study,
- (7) to secure permission for the Team to take all data and documents (including maps, photographs) related to the Study out of Sri Lanka to Japan, and
- (8) to provide medical services as needed. Its expenses will be chargeable on the members of the Team.

2. The Government of Sri Lanka shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the

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Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team.

3. Sri Lanka Telecom shall act as a counterpart agency to the Team and also as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
4. Sri Lanka Telecom shall, at its own expense, provide the Team with the following, in cooperation with other relevant organizations concerned:
 - (1) available data (including photographs and maps) and information related to the Study,
 - (2) counterpart personnel,
 - (3) suitable office space with necessary equipment and furniture,
 - (4) credentials or identification cards, and
 - (5) appropriate number of vehicles with drivers.


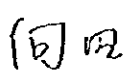
VIII. UNDERTAKING OF JICA

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

- (1) to dispatch, at its own expense, the Team to Sri Lanka, and
- (2) to pursue technology transfer to the Sri Lankan counterpart personnel in the course of the Study.

IX. CONSULTATION

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

TENTATIVE WORK SCHEDULE

MONTH DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
WORK IN SRI LANKA	[]		[]		[]		[]		[]		[]		[]		
WORK IN JAPAN	[]			[]		[]		[]		[]		[]			
REPORT PRESENTATION	▲ IC/R			▲ P/R			▲ IT/R				▲ DF/R				▲ F/R
PHASE I	←-----→														
PHASE II							←-----→								

NOTE: IC/R : Inception Report
 P/R : Progress Report
 IT/R : Interim Report
 DF/R : Draft Final Report
 F/R : Final Report

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(14)

MINUTES OF MEETINGS
THE STUDY ON TELECOMMUNICATIONS NETWORKS
IN THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Japan International Cooperation Agency (JICA) Preparatory Study Team (hereinafter referred to as "Mission") and Sri Lanka Telecom (hereinafter referred to as "SLT") had meetings from December 12 to 20, 1994 at the headquarter of SLT in Colombo.

A list of participants for the meetings is given in Attachment to this minutes.

At the opening session, Mr. O.S.Perera, Director, Network Development and Acting Managing Director of SLT welcomed the Mission and expressed his gratitude for cooperation of the Government of Japan and stressed necessity of updating the current master plan in order to incorporate the latest changes in policy and environment. Mr. Motoyuki Mukoda, Leader of the Mission, appreciated the hospitality extended by SLT.

During the meetings, the document entitled "SCOPE OF WORK FOR THE STUDY ON TELECOMMUNICATIONS NETWORKS IN THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA" was discussed and both sides agreed on it, considering the followings in the series of discussions.

1. Although the project title stated in the formal request submitted to the Government of Japan was "Review the master plan", the Mission proposed a new title, "The Study on Telecommunications Networks in the Democratic Socialist Republic of Sri Lanka". Both sides confirmed the title as proposed.
2. The Mission explained that it would require fifteen (15) months to complete the Study and stated that the date of commencement of the Study was not formally decided, however, it would be commenced in around March 1995. Both sides confirmed the schedule as proposed.
3. Both sides agreed that if it is decided that there are any security and safety problems in certain areas the Study shall be carried out, without field surveys in that areas, by analyzing the existing information available in other ways.
4. Both sides agreed that the planning for new technologies, such as Data Communications, ISDN, Intelligent Network, and the drafting of the CCS No.7 National Specification, shall be included in the course of the Study. Human resource development plan shall also be included in the scope of work.

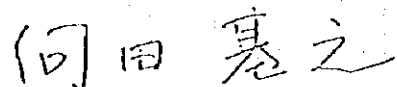


5. Both sides confirmed that the final report could be disclosed.
6. The Mission requested SLT to assign an appropriate number of counterpart personnel for smooth execution of the Study and effective technical transfer. The Mission also expressed that counterparts should have expertise in the fields of demand forecasting, network planning, switching system, transmission system, outside plants, radio systems, finance and organization structures. SLT accepted the request.
7. Concerning the "UNDERTAKING OF THE GOVERNMENT OF SRI LANKA", SLT promised to provide to the Team, that carries out the studies defined in the scope of work, with an appropriate office space with an air-conditioner, desks, chairs, cabinets, a photocopier, a fax terminal, telephone lines for IDD and fax and transportation for the purposes of survey within Greater Colombo limit, and to make arrangement for issuing ID cards for the Team members. SLT requested that international telephone call charges should be paid by the Team. Both sides confirmed these arrangements.
8. The Mission advised that necessary application procedures to the Government of Japan should be taken by the Government of Sri Lanka through JICA Sri Lanka office in Colombo, if SLT requests training for counterpart. The Mission also explained that only one trainee could be acceptable.
9. SLT emphasized projects aimed at achieving the following objectives to be taken up for the Study on a priority basis:
- (a) to ease congestion in the existing trunk and junction networks for national and international traffic;
 - (b) to meet growing demand in urban and suburban areas; and
 - (c) to provide access to telecommunications facilities in rural areas.

Colombo, December 20, 1994



Mr. Hemasiri FERNANDO
Chairman
Sri Lanka Telecom



Mr. Motoyuki MUKODA
Leader of the Preparatory Study Team
Japan International Cooperation Agency

LIST OF PARTICIPANTS

1. Sri Lanka Telecom

- | | | |
|----|----------------------|---|
| 1) | Mr. O.S.PERERA | Director, Network Development |
| 2) | Mr. C.GNANAINDRAN | Deputy General Manager, Corporate Planning |
| 3) | Mr. G.R.PODIRALAHAMY | Deputy General Manager, Network Planning |
| 4) | Mr. K.K.MAHENDIRAN | General Manager, International Services |
| 5) | Mr. M.Z.SALEEM | Engineer, Manpower Planning |
| 6) | Mrs. P.A.M.BOTEJU | Deputy General Manager, Management Accounting |
| 7) | Mrs. P.R.AMARASIRI | Chief Legal Officer |

2. JICA Preparatory Study Team

- | | | |
|----|----------------------|---|
| 1) | Mr. Motoyuki MUKODA | Leader / Preparatory Study Team
Network Plan |
| 2) | Mr. Atsuo ASAI | Transmission Plan |
| 3) | Mr. Takashi SUGAWARA | Project Coordinator |
| 4) | Mr. Masami MURATA | Switching Plan |
| 5) | Mr. Masaru SOMEYA | Cable Plan |

MINUTES OF MEETINGS (March 28-30, 1995)
THE STUDY ON TELECOMMUNICATIONS NETWORKS
IN THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Japan International Cooperation Agency (JICA) Study Team (hereinafter referred to as "Team") and Sri Lanka Telecom (hereinafter referred to as "SLT") had meetings on March 28 through 30, 1995 at the headquarters of SLT in Colombo.

A list of participants for the meetings is given in Attachment to this minutes.

At the opening session, Mr. M. Mukoda, Chairman of the Advisory Committee of JICA introduced the JICA Team. Mr. P. K. Wickramarachi, Managing Director of SLT welcomed the Team and expressed his gratitude for cooperation of the Government of Japan. Mr. T. Amano, Leader of the Team appreciated the hospitality extended by SLT.

In the meeting on March 28, the Team submitted 20 copies of the Inception Report on "The Study on Telecommunications Networks in the Democratic Socialist Republic of Sri Lanka" (hereinafter referred to as "the Study") to SLT.

Through a series of meetings, SLT and the Team discussed the contents of the Inception Report, and the report was generally accepted. However, the following items were emphasized as needing special attention:

1. The Study have to cover various telecommunications services including voice and non-voice services.
2. The following development target periods are to be considered:
 - Short-term target for 5 years (Year 2000)
 - Mid-term target for 10 years (Year 2005)
 - Long-term target for 20 years (Year 2015)
3. For the selection of priority projects, the "Third Telecommunications Development Program of SLT, 1996-2000" will be referred.
4. In the master plan study, the service provision plan should be made for the basis of the network expansion plan.
5. In 4th paragraph of item (1) in page 2-2 of the Inception Report, "and some unlicensed companies the service." is to be deleted.
6. The network expansion plan should be made to minimize the existing investment imbalance among network components.

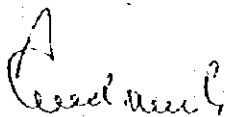
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7. For enhancement of mobile telecommunications services, the introduction of low cost wireless telephone system, such as PHS, CT-2, etc. should be considered.
8. SLT introduced some examples of current problems on the institutional issue. To improve telecommunications services and managerial effectiveness, the appropriate targets and solutions are to be studied.
9. The improvement of Management Information System inside SLT will be studied as a part of the organization and management plan.
10. The improvement of safety measures and preventive maintenance procedures within SLT will be considered in the operation and maintenance plan.
11. Proper utilization of trained staff will be advised in the human resources development plan.
12. As the title for item h) in page 3-5 and the duty in charge of a member in page 4-2, the "Institutional strengthening plan" should be used instead of the "Privatization plan".
13. The locations of field survey will be selected later so as to represent the socio-economic characteristics and the current status of telecommunications facilities. Adequate number of sample areas are to be selected for rural telecommunications network plan.

Colombo, April 4, 1995



Mr. P. K. WICKRAMARACHI
Managing Director
Sri Lanka Telecom



Mr. Tatsumi AMANO
Leader of the Study Team
Japan International Cooperation Agency



Mr. Motoyuki MUKODA
Chairman of the Advisory Committee
Japan International Cooperation Agency

List of Participants for the Meetings

1. Sri Lanka Telecom

- | | | |
|-----|----------------------------|---|
| 1) | Mr. P. K. Wickramarachi | Managing Director |
| 2) | Mr. C. Gnanaindran | Deputy General Manager, Corporate Planning Unit |
| 3) | Mr. O. S. Perera | Director, Network Development |
| 4) | Mr. R. B. Kumarampathirana | Director, Operation |
| 5) | Mr. R. D. Somasiri | Director, Administration and Support Services |
| 6) | Mr. W. W. S. C. Fernando | Director, Finance |
| 7) | Mr. H. L. M. De Silva | General Manager, Planning and Development |
| 8) | Mr. G. R. Podiralahamy | Deputy General Manager, Network Planning |
| 9) | Mrs. P. A. M. Boteju | Deputy General Manager, Management Accounting |
| 10) | Mrs. M. Somaratna | Engineer, Transmission Planning I |
| 11) | Mrs. N. D. K. Jagoda | Engineer, Transmission Planning III |
| 12) | Mr. K. Vicknarajah | Engineer, External Plant Planning I |
| 13) | Mr. D. S. Rahaman | Engineer, Switching Planning I |
| 14) | Mr. K. Rajendran | Engineer, Corporate Planning |
| 15) | Mr. M. Z. Saleem | Engineer, Manpower Planning |

2. JICA Study Team

- | | | |
|----|------------------------|---|
| 1) | Mr. Tatsumi Amano | Team Leader, Traffic Forecast/
New Service |
| 2) | Mr. Junichi Kurobe | Assistant Team Leader, Radio Facility Plan/
International Telecom Facility Plan/
Frequency Management |
| 3) | Mr. Yasuo Ishihara | Network Plan/ Switching Facility |
| 4) | Mr. Kiyokazu Kioka | Outside Plant Network/Facility |
| 5) | Mr. Junnosuke Kawakami | Operation & Maintenance Plan/
Organization & Management Plan |
| 6) | Mr. Daisuke Okeda | Transmission Network/Facility |
| 7) | Mr. Naoto Matsuda | Demand Forecast |
| 8) | Mr. Tomoyuki Kuroda | Economic/Financial Analysis |
| 9) | Mr. Norio Fujiyoshi | Administrative Support |

3. JICA Advisory Committee

- | | | |
|----|----------------------|------------------------------------|
| 1) | Mr. Motoyuki Mukoda | Chairman of the Advisory Committee |
| 2) | Mr. Kazusa Matsuzawa | Member of the Advisory Committee |
| 3) | Mr. Kiyotaka Otsuki | JICA Headquarters |

**Minutes of the Meeting held on 22nd June 1995
to discuss the Progress Report of the "Study on Telecommunication
Networks in the
Democratic Socialist Republic of Sri Lanka"**

Sri Lanka Telecom Team

- | | | | |
|----|--------------------------|---|--|
| 1. | Mr. R.D. Somasiri | - | Managing Director |
| 2. | Mr. O.S. Perera | - | Director/Network Development |
| 3. | Mr. R.B. Kumarapathirana | - | Director/Operations |
| 4. | Mr. W.W.S.C. Fernando | - | Director/Finance |
| 5. | Mr. M.A.L. Fonseka | - | Director/Administration & Support Services |
| 6. | Mr. H.L.M. de Silva | - | General Manager Planning and Development |
| 7. | Mr. G.R. Podiralahamy | - | Deputy General Manager/Network Planning |
| 8. | Mr. C. Gnanaindran | - | Deputy General Manager/Corporate
Planning |

JICA Study Team

- | | | | |
|----|--------------------|---|---------------------------------|
| 1. | Mr. Tatsumi Amano | - | Team Leader |
| 2. | Mr. Yasuo Ishihara | - | Network Plan/Switching Facility |
| 3. | Mr. Kiyokazu Kioka | - | Outside Plant Network/Facility |
| 4. | Mr. Daisuke Okeda | - | Transmission Network/Facility |
| 5. | Mr. Mikio Akamatsu | - | Organisation and Management |

Japan International Cooperation Agency (JICA) Study Team (hereinafter referred to as "Team") and Sri Lanka Telecom (hereinafter referred to as "SLT") meeting was held on 22nd June 1995 at the headquarters of SLT in Colombo, Sri Lanka.

It was reported that prior to this meeting, the team has submitted 20 copies of Progress Report on "The Study on Telecommunications Networks in the Democratic Socialist Republic of Sri Lanka" (hereinafter referred to as "the Study") to SLT on 20th June, 1995.

It was observed that Team had conducted series of meetings with the counterparts and other officials. SLT and the Team discussed the contents of the Progress Report, and the report was generally accepted. Results of the first study in Sri Lanka, mainly consisting of demand forecast and development framework was discussed and following observations were noted.

1. Planning periods and target years of the master plan are as follows:
 - Short-term plan up to year 2000 on Exchange basis;
 - Medium-term plan up to year 2005 on Exchange basis; and
 - Long-term plan up to year 2015 on Secondary Switching Centre basis.
2. Share of residential subscribers in future is expected to be increased, so special attention should be paid in financial analysis.
3. SLT intends to apply fibre optic cable transmission system to the national backbone system in earlier stage.
4. To find ways and means to improve the present organisation structure of SLT and to make necessary recommendations
5. It was agreed that any comments/observations in regard to the progress report should be compiled and sent to the Team by Mr. H.L.M. de Silva, Chief of SLT counterparts, before mid July 1995 to be reflected in the interim report.



Mr. Tatsumi AMANO
Leader of the Study Team
Japan International Cooperation Agency



Mr. R.D. SOMASIRI
Managing Director
Sri Lanka Telecom

Colombo
Sri Lanka
23rd June 1995

cc - S/ P&T - For Information please
- CH/ SLT - For Information please

**Minutes of the Meetings held
on
24th-26th October 1995 to discuss the Interim Report
of
the Study on Telecommunications Networks
in
the Democratic Socialist Republic of Sri Lanka**

Japan International Cooperation Agency (JICA) Study Team (hereinafter referred to as "Team") and Sri Lanka Telecom (hereinafter referred to as "SLT") had meetings on 24th-26th October 1995 at the headquarters of SLT in Colombo. A list of participants for the meetings is referred to in attachment-3 of this minutes.


It was reported that prior to the meetings, the Team has submitted 20 copies of the Interim Report on "The Study on Telecommunications Networks in the Democratic Socialist Republic of Sri Lanka" (hereinafter referred to as "the Study") to SLT on 19th October 1995.

Through a series of meetings which had been conducted by the Team with the counterparts and other officials, SLT and the Team discussed the contents of the Interim Report, and the report was generally accepted. However, the following observations were noted :

1. The numbering plan proposed in the Interim Report may be reviewed by the Team according to the new numbering plan which is under study by Sri Lanka Telecommunications Authority (SLTA) in case the new numbering plan is provided to the Team by the middle of December 1995.
2. A cost comparison between land cable and submarine cable for the backbone transmission network expansion is to be made.
3. The following priority projects were agreed to conduct feasibility study during Phase-II Study.
 - a) Local network expansion project in Colombo Metro area
Objective exchanges are referred to in attachment-1.
 - b) Central ring fibre optic backbone transmission network project
The proposed network is referred to in attachment-2.
 - c) Negombo new ISC, TSC and Earth Station project
(Optimum location is to be decided within two (2) weeks by SLT.)

4. This study basically intends to cover all telecommunications services. However due to insufficient available data, it was agreed that the study will not be able to cover private telecommunications sector deeply.

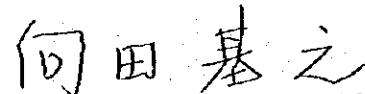
Colombo, Sri Lanka
27th October 1995



Mr. R. D. SOMASIRI
Managing Director
Sri Lanka Telecom




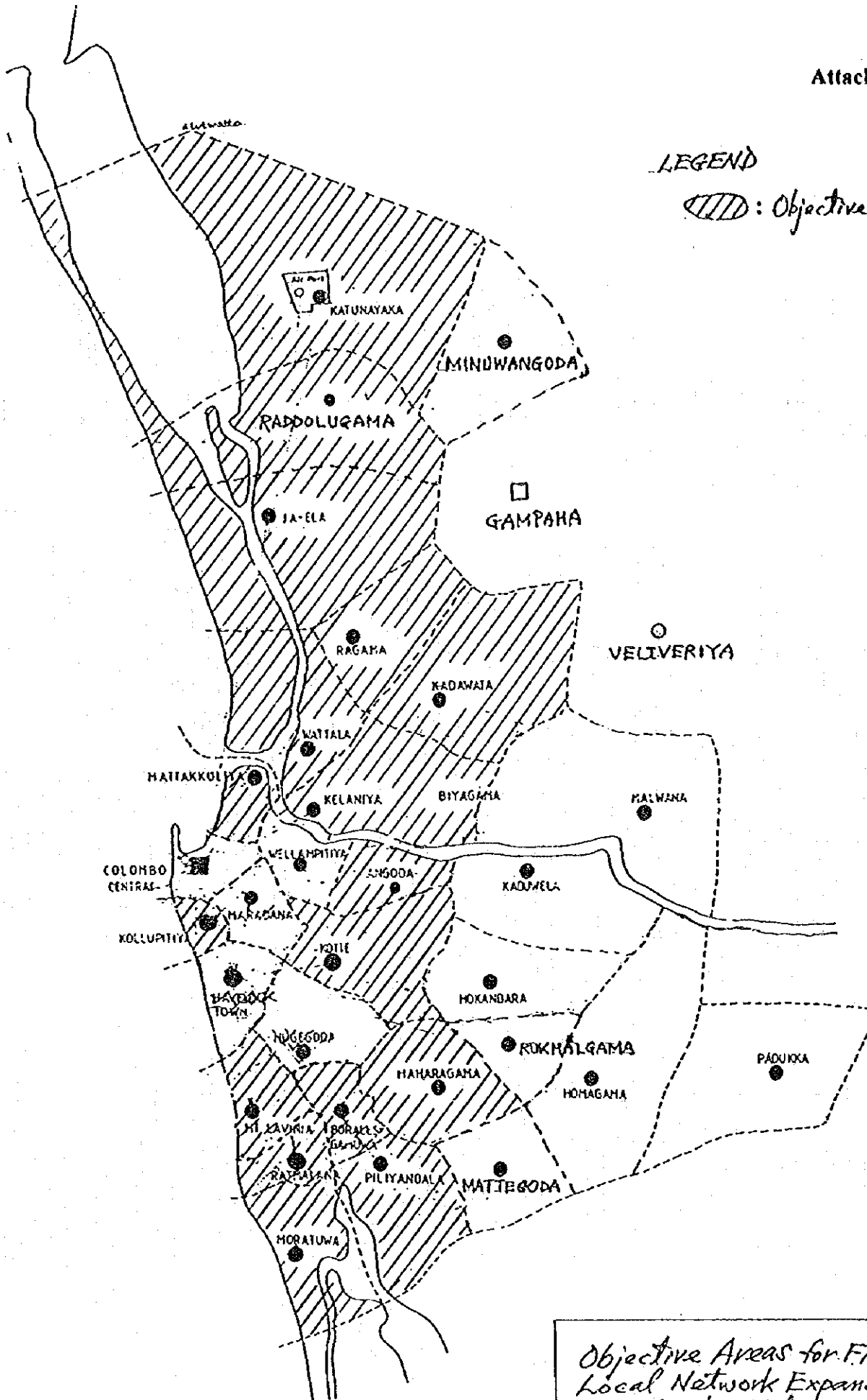
Mr. Tatsumi AMANO
Leader of the Study Team
Japan International Cooperation Agency



Mr. Motoyuki MUKODA
Chairman of the Advisory Committee
Japan International Cooperation Agency

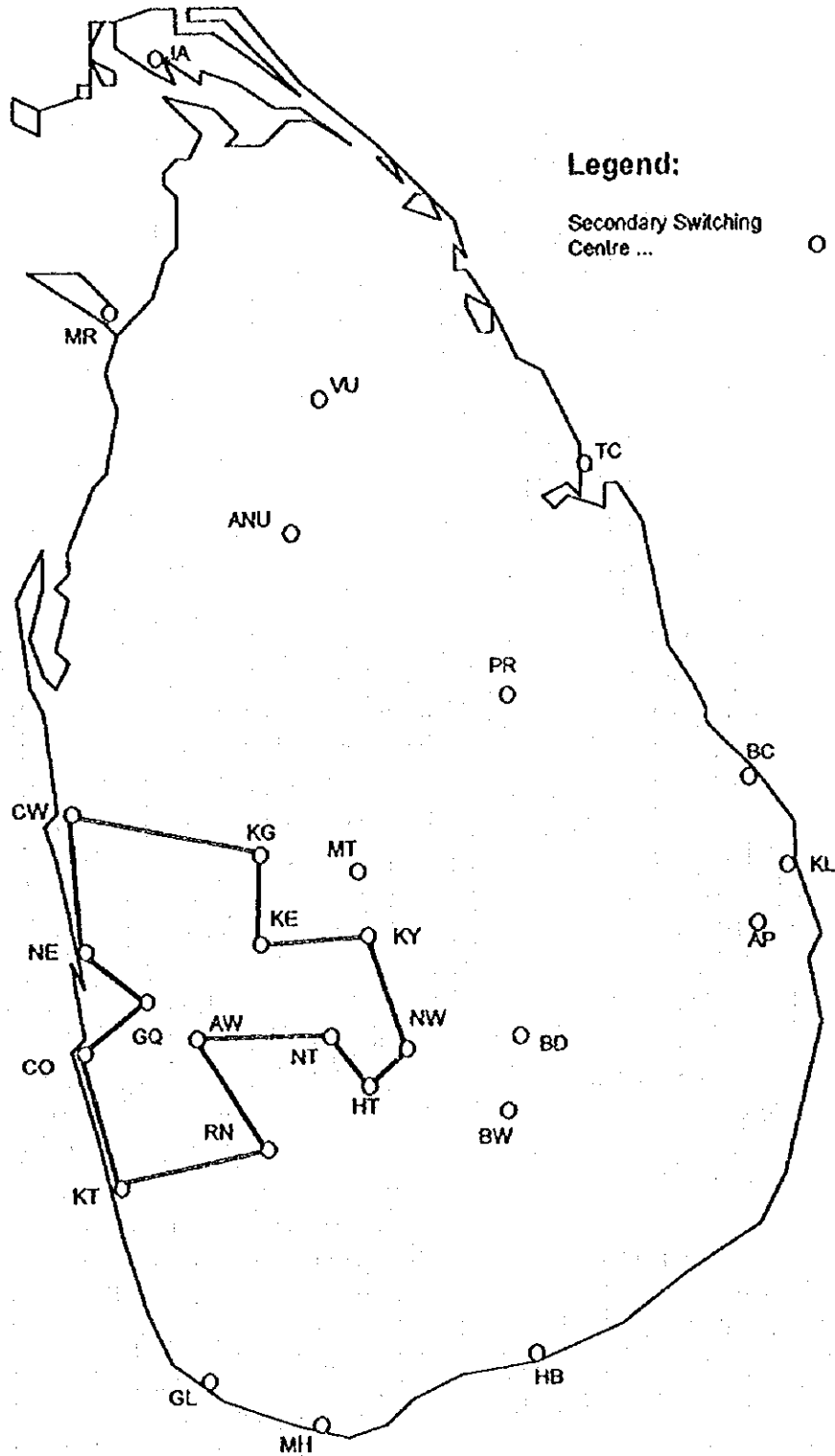
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: Objective Area



MM for 24th-26th October 1995

Objective Areas for F/S on Local Network Expansion Project in Colombo Metro SSC Area.



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CENTRAL RING FIBRE OPTIC BACKBONE TRANSMISSION NETWORK

MM for 24th-26th October 1995

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List of Participants for the Meetings

1. Sri Lanka Telecom

- | | | |
|-----|----------------------------|---|
| 1) | Mr. R. D. Somasiri | Managing Director |
| 2) | Mr. O. S. Perera | Director, Network Development |
| 3) | Mr. R. B. Kumarapathirana | Director, Operation |
| 4) | Mr. W. W. S. C. Fernando | Director, Finance |
| 5) | Mr. M. A. L. Fonseka | Director, Administration and Support Services |
| 6) | Mr. H. L. M. De Silva | General Manager, Planning and Development |
| 7) | Mr. K. K. Mahendiran | General Manager, International Services |
| 8) | Mr. U. D. Withana | General Manager, Regions |
| 9) | Mr. M. L. C. Alwis | General Manager, Switching and Transmission |
| 10) | Mr. S. R. Kanaheraarachchi | General Manager, Network |
| 11) | Mr. G. R. Podiralahamy | Deputy General Manager, Network Planning |
| 12) | Mr. C. Gnanaindran | Deputy General Manager, Corporate Planning Unit |
| 13) | Mrs. P. A. M. Boteju | Deputy General Manager, Management Accounting |
| 14) | Mr. M. B. Herath | Deputy General Manager, Metro North |
| 15) | Mr. G. A. D. Silva | Deputy General Manager, Data Networks |
| 16) | Mr. A. Siriwardena | Deputy general Manager, Marketing |
| 17) | Mr. D. S. Rahaman | Engineer, Switching Planning |
| 18) | Mrs. N. D. K. Jagoda | Engineer, Transmission Planning |
| 19) | Mr. K. Vicknarajah | Engineer, External Plant Planning |
| 20) | Mr. K. Rajendran | Engineer, Corporate Planning |
| 21) | Mr. M. Z. Saleem | Engineer, Manpower Planning |

2. JICA Study Team

- | | | |
|----|---------------------|---|
| 1) | Mr. Tatsumi Amano | Team Leader |
| 2) | Mr. Junichi Kurobe | Assistant Team Leader, Radio Facility Plan/
International Telecom Facility Plan/
Frequency Management |
| 3) | Mr. Yasuo Ishihara | Network Plan/ Switching Facility |
| 4) | Mr. Isao Yamaguchi | Outside Plant Network/Facility |
| 5) | Mr. Daisuke Okeda | Transmission Network/Facility |
| 6) | Mr. Tomoyuki Kuroda | Economic/Financial Analysis |

3. JICA Advisory Committee

- | | | |
|----|---------------------|------------------------------------|
| 1) | Mr. Motoyuki Mukoda | Chairman of the Advisory Committee |
| 2) | Mr. Shigemaro Aoki | Member of the Advisory Committee |
| 3) | Mr. Kazuhiro Fukuda | JICA Headquarters |

**Minutes of the Meetings held
on
11th and 12th December 1995 to discuss Basic Conditions of Feasibility Study
in
the Study on Telecommunications Networks
in
the Democratic Socialist Republic of Sri Lanka**

The Study Team of Japan International Cooperation Agency (JICA) (hereinafter referred to as "Team") and Sri Lanka Telecom (hereinafter referred to as "SLT") had meetings on 11th and 12th December 1995 at the headquarters of SLT in Colombo. A list of participants for the meetings is referred to in attachment-1 of this minutes.

The Team submitted a brief report regarding the feasibility study and explained basic conditions of the feasibility study and outlines of the priority projects.

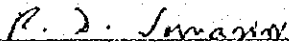
Through the meetings, SLT and the Team discussed and confirmed as follows :

1. An analysis of impacts by participation of private WLL operators is to be added in the master plan as a new chapter.
2. The feasibility study is to be made taking impacts brought by participation of private WLL operators into account. In addition, the JICA study will take into consideration of the hidden demand (20% of the expressed demand) for the feasibility study.
3. Outlines and basic concepts of the following priority projects were confirmed and agreed by both parties for further feasibility study :
 - a) Local network expansion project in Colombo Metro area ;
 - b) Central ring fibre optic backbone transmission network project ;
 - c) New ISC, TSC and Earth Station project.
4. New ISC, TSC and Earth Station Project should also include new NSC (National Switching Center) for establishing a future balanced national network.

(continued)

5. Regarding New ISC/TSC & Earth Station Project, the new site has not been decided yet by SLT, however, the Team continues the feasibility study on condition that the new site will be located at Kotugoda, because of a limited study period.
In case SLT decides other site which is not Kotugoda, necessary modification will be made by SLT during project implementation period.
6. The team agreed for SLT's request that "Improvement of Telecommunication Training Facilities" is listed as a priority "A" project in the Interim Report, further description is to be added to the subsection 3 of Chapter 12 "Human Resource Development Plan".

Colombo, Sri Lanka
12th December 1995



Mr. R. D. SOMASIRI
Managing Director
Sri Lanka Telecom



Mr. Tatsumi AMANO
Leader of the Study Team
Japan International Cooperation Agency

List of Participants for the Meetings1. *Sri Lanka Telecom*

- | | | |
|-----|----------------------------|---|
| 1) | Mr. R. D. Somasiri | Managing Director |
| 2) | Mr. O. S. Perera | Director, Network Development |
| 3) | Mr. W. W. S. C. Fernando | Director, Finance |
| 4) | Mr. R. B. Kumarapathirana | Director, Operation |
| 5) | Mr. H. L. M. De Silva | General Manager, Planning and Development |
| 6) | Mr. W. W. J Ratnappiriya | General Manager, Finance |
| 7) | Mr. C. B. R Perera | General Manager, Region |
| 8) | Mr. S. R. Kanaheraarachchi | General Manager, Network |
| 9) | Mr. M. S. Wimalagoonaratna | General Manager, Metro |
| 10) | Mr. S. Amarasinghe | General Manager, projects |
| 11) | Mr. M. L. C. Alwis | General Manager, Switching and Transmission |
| 12) | Mr. G. R. Podiralahamy | Deputy General Manager, Network Planning |
| 13) | Mr. C. Gnanaindran | Deputy General Manager, Corporate Planning Unit |

2. *JICA Study Team*

- | | | |
|----|---------------------|----------------------------------|
| 1) | Mr. Tatsumi Amano | Team Leader |
| 2) | Mr. Yasuo Ishihara | Network Plan/ Switching Facility |
| 3) | Mr. Isao Yamaguchi | Outside Plant Network/Facility |
| 4) | Mr. Daisuke Okeda | Transmission Network/Facility |
| 5) | Mr. Tomoyuki Kuroda | Economic/Financial Analysis |

R. S. Suman

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**Minutes of the Meetings held
on
16th and 20th February 1996 to discuss Draft Final Report
for
the Study on Telecommunications Networks
in
the Democratic Socialist Republic of Sri Lanka**

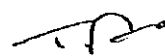
The Study Team of Japan International Cooperation Agency (JICA) (hereinafter referred to as "Team") and Sri Lanka Telecom (hereinafter referred to as "SLT") had meetings on the 16th and 20th February 1996 at the conference room at the Hotel Hilton in Colombo. A list of participants for the meetings is referred to in attachment-1 of this minutes.

It was reported that the study team had submitted the Draft Final Report consisting of five volumes to SLT on the 15th February 1996. The number of copies submitted is as follows:

Volume-I	Summary	20 copies;
Volume-II	Master Plan	20 copies;
Volume-III	Feasibility Study for Priority Projects	20 copies;
Volume-IV	Supporting for Master Plan	5 copies;
Volume-V	Data Book	5 copies.

Through a series of meetings, SLT and the Team discussed the contents of the Draft Final Report, and the report was generally accepted. Both parties confirmed the following points.

1. The Team presented an analysis on the impacts which may be caused by the participation of private WLL operators according to the previous agreement and the outline was understood by SLT.
2. SLT raised an observation on the possibility of adopting optical fibre cable for primary cable section in the external plant project package in the local network expansion project in Colombo Metro Area. The Team explained that the design of subscriber cable network was basically made using copper cables in consideration of the magnitude in demand in the objective area. The Team pointed out that during detailed design the adoption of optical fibre cables for primary cable section may be considerable from a view of cost effectiveness in the area where the rapid demand increase is expected. The Team agreed to add it in the feasibility study report and suggested to refer to cost comparison among applicable systems in the report.


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3. It was agreed that any comments / observations from SLT and other organisations concerned in regard to the Draft Final Report should be compiled and sent to the Team by Mr. H. L. M. De Silva, Chief of SLT counterparts, before the 20th March 1996, to be reflected to the Final Report.

On closing the meeting held on the 20th February 1996, Mr. Tatsumi AMANO, Leader of the study team and Mr. Motoyuki MUKODA, Chairman of JICA Advisory Committee, expressed their gratitude for close co-operation of SLT and other officials concerned through the whole study period. Mr. R.D. Somasiri, Managing Director of SLT, expressed his thanks in response on behalf of the SLT officials concerned, for technical co-operation provided by JICA.

Colombo, Sri Lanka
23rd February 1996

R. D. Somasiri

Mr. R. D. SOMASIRI
Managing Director
Sri Lanka Telecom



Mr. Tatsumi AMANO
Leader of the Study Team
Japan International Cooperation Agency

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Mr. Motoyuki MUKODA
Chairman of the Advisory Committee
Japan International Cooperation Agency

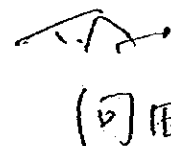
List of Participants for the Meetings

1. *Sri Lanka Telecom*

- | | | |
|-----|----------------------------|---|
| 1) | Mr. R. D. Somasiri | Managing Director |
| 2) | Mr. W. W. S. C. Fernando | Director, Finance |
| 3) | Mr. R. B. Kumarapathirana | Director, Operations |
| 4) | Mr. M. A. L. Fonseka | Director, Administration and Procurement |
| 5) | Mr. S. Amarasinghe | Director, Network Development |
| 6) | Mr. H. L. M. De Silva | General Manager, Planning and Development |
| 7) | Mr. U. D. Withana | General Manager, Region II |
| 8) | Mr. M. L. C. Alwis | General Manager, Switching and Transmission |
| 9) | Mrs. P. N. E. Abeysekera | General Manager, Supplier's Credit Project |
| 10) | Mr. S. R. Kanaheraarachchi | General Manager, Networks |
| 11) | Mr. C. B. R. Perera | General Manager, Region I |
| 12) | Mr. R. P. L. Ariyatilake | General Manager, Human Resources |
| 13) | Mr. W. W. J Ratnappiriya | General Manager, Finance |
| 14) | Mrs. P. A. M. Boteju | General Manager, Management Accounting |
| 15) | Mr. G. R. Podiralahamy | Deputy General Manager, Network Planning |
| 16) | Mr. C. Gnanaindran | Deputy General Manager, Corporate Planning Unit |
| 17) | Mr. A. Siriwardena | Deputy General Manager, Marketing |
| 18) | Mr. D. S. Rahaman | Engineer, Switching Planning |
| 19) | Mr. K. Vicknarajah | Engineer, External Plant Planning |
| 20) | Mr. K. Rajendran | Engineer, Corporate Planning |
| 21) | Mr. M. Z. Saleem | Engineer, Manpower Planning |
| 22) | Mr. W. D. C. Gunasekara | Engineer, Transmission Planning |

2. *JICA*

- | | | |
|----|---------------------|------------------------------|
| 1) | Mr. Tatsumi Amano | Leader, Study Team |
| 2) | Mr. Yasuo Ishihara | Member, Study Team |
| 3) | Mr. Daisuke Okeda | Member, Study Team |
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