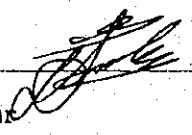


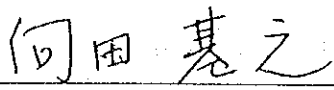
SCOPE OF WORK  
FOR  
THE STUDY  
ON  
TELECOMMUNICATIONS NETWORK  
IN  
ULAANBAATAR CITY

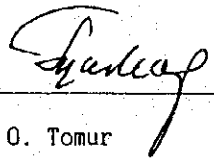
AGREED UPON BETWEEN

MINISTRY OF INFRASTRUCTURE DEVELOPMENT /  
MONGOLIAN TELECOMMUNICATIONS COMPANY  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

Ulaanbaatar, 22 June 1995

  
Mr. G. Battur  
Director General  
Telecommunication Department  
Ministry of Infrastructure  
Development

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

  
Mr. O. Tomur  
Director General  
Mongolian Telecommunications  
Company

## I. INTRODUCTION

In response to the request of the Government of Mongolia, the Government of Japan has decided to implement the Study on Telecommunications Network in Ulaanbaatar city (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 Mongolia.

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 basic plan for the development of telecommunications network in Ulaanbaatar city - (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

The Study will cover the Ulaanbaatar city (administrative area) as shown in the ANNEX-1.

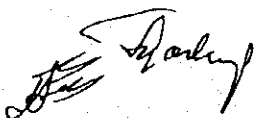
## IV. SCOPE OF THE STUDY

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

### [PHASE I]

#### 1. Basic Study

- (1) Collection and review of data/information
  - a) Social and economic conditions and statistics
  - b) National Development Plans



(10) (12)

- c) Previous studies on telecommunications
- d) Relevant studies 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. Basic planning for telecommunications development

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

[PHASE II]

3. Feasibility study on the priority project(s)

- (1) Confirmation of the planning framework
  - a) Target year
  - b) Planning area
  - c) Service level
- (2) Facility improvement and expansion plan

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- a) Transmission systems
- b) Switching systems
- c) Outside plant
- d) Cable networks
- (3) Operation and maintenance plan
- (4) Human resource development plan
- (5) Institution, organization and management plan
- (6) Cost estimation
- (7) Project evaluation
  - a) Financial analysis
  - b) Social and economic analysis
- (8) Project implementation programme

#### V. STUDY SCHEDULE

The Study will be carried out in accordance with the tentative work schedule attached in the ANNEX-2.

#### VI. REPORTS

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

1. Inception Report

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

2. Progress Report

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

3. Interim Report

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

4. Draft final Report

Twenty (20) copies at the beginning of the third work in Mongolia.

The Government of Mongolia 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.

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## VII. UNDERTAKING OF THE GOVERNMENT OF MONGOLIA

1. To facilitate smooth conduct of the Study, the Government of Mongolia shall take necessary measures within the laws and regulations in force in Mongolia:

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

3. Ministry of Infrastructure Development (hereinafter referred to as "MOID") and Mongolian Telecommunications Company (hereinafter referred to as "MTC") shall act as a counterpart agency to the Team and also as a coordinating body in relation with other governmental and non-governmental organizations

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concerned for the smooth implementation of the Study.

4. MOID and MTC 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 Mongolia, and
- (2) to pursue technology transfer to the Mongolian counterpart personnel in the course of the Study.

#### IX. CONSULTATION

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

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ANNEX-1

1. Khan-Uul district
2. Songino khairkhan district
3. Bayangol district
4. Sukhbaatar district
5. Chingeltei district
6. Bayan zurkh district
7. Partizan
8. Nalaikh
9. Gatsuurt
10. Summer camp area
11. Baganuur
12. Bagakhangai

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TENTATIVE WORK SCHEDULE

MONTH	DESCRIPTION	1	2	3	4	5	6	7	8	9	10	
	WORK IN MONGOLIA											
	WORK IN JAPAN											
	REPORT PRESENTATION	△ IC/R		△ P/R		△ IT/R			△ DF/R		△ F/R	
	PHASE I	←-----→										
	PHASE II									←-----→		

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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MINUTES OF MEETINGS ON THE SCOPE OF WORK  
FOR  
THE STUDY ON TELECOMMUNICATIONS NETWORK  
IN ULAANBAATAR CITY

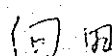
Japan International Cooperation Agency (JICA) Preparatory Study Team (hereinafter referred to as "Japanese side") and Ministry of Infrastructure Development and Mongolian Telecommunications Company (hereinafter referred to as "Mongolian Side") had meetings from 15th to 21st June, 1995 at the Ministry of Infrastructure Development in Ulaanbaatar City.

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

At the opening session, Dr. Ph. S. GANBAATAR, Deputy Director General of Telecommunication Department in Ministry of Infrastructure Development Mongolia welcomed Japanese side and expressed his gratitude for cooperation of the Government of Japan and stressed necessity of urgent rehabilitation of telecommunications network in Ulaanbaatar City. Mr. Motoyuki MUKODA, Leader of Japanese side, appreciated the hospitality extended by Mongolian side.

During the meetings, the document entitled "SCOPE OF WORK FOR THE STUDY ON TELECOMMUNICATIONS NETWORKS IN ULAANBAATAR CITY (DRAFT)" was discussed. Both sides agreed on it considering the followings in the series of discussions.

1. Although the project title stated in the formal request submitted by the Government of Mongolia to the Government of Japan was "THE STUDY OF ULAANBAATAR CITY TELECOMMUNICATION NETWORK", the Japanese side proposed a new title, "THE STUDY ON TELECOMMUNICATIONS NETWORK IN ULAANBAATAR CITY". Both sides confirmed the title as proposed.
2. Mongolian side proposed that the counterpart agencies of the Study should be both of Ministry of Infrastructure Development and Mongolian Telecommunications Company. Japanese side agreed on it.
3. The Study will cover the Ulaanbaatar City (administrative area) and the area is described on a list prepared by Mongolian side. Both sides agreed on them.



4. Mongolian side requested to include broadcasting in the Study. However through discussion, both sides agreed that general broadcasting service would not be included in the Study.
5. Mongolian side proposed and both sides agreed that human resources development plan should be included in the Study.
6. Mongolian side requested that target year of PHASE I Study is to be ten (10) years and that of PHASE II Study is to be five (5) years. Japanese side replied that the periods of them should be discussed and decided at the beginning of the Study. Mongolian side agreed on the matter.
7. Japanese side explained that it would require ten (10) 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 October 1995. Both sides confirmed the schedule as it is.
8. Japanese side agreed that data and documents provided by Mongolian side should be restricted usage within the Study.
9. Both sides confirmed that the final report could be disclosed in consultation with the Government of Mongolia.
10. Japanese side requested Mongolian side to assign a supervisor and an appropriate number of counterpart personnel for smooth execution of the Study and effective technology transfer. Japanese side also expressed that counterparts should have expertise in the fields of demand forecast, network planning, switching system, transmission system, outside plants, radio system, economic and finance, organization management, operation and maintenance. Mongolian side accepted the request.
11. Mongolian side requested the "UNDERTAKING OF THE GOVERNMENT OF MONGOLIA" should be executed according to the laws and regulations of Mongolia. Japanese side agreed on the matter.

Mongolian side promised to provide the Team, in order to carry out the Study, with an appropriate office space with desks, chairs, cabinets, a facsimile terminal, telephone sets, telephone lines for IDD and facsimile and arrangement of appropriate number, of vehicles with drivers for the Study and to make an

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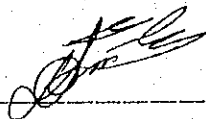
arrangement for issuing ID cards for the Team. Mongolian side requested that charges for international telephone calls and vehicles with drivers should be paid by the Team. And Mongolian side also requested that a photocopier to be used for the Study would be prepared by the Team. Both sides confirmed these arrangements.

12. Japanese side advised that necessary application procedures to the Government of Japan should be taken by the Government of Mongolia through Embassy of Japan in Mongolia and explained that only one (1) trainee could be acceptable at present. Mongolian side expressed that they would nominate trainee(s) from the counterpart personnel in consultation with the Team.


13. Mongolian side emphasized projects aimed at achieving the following objectives to be taken up for the Study on a priority basis:

- (1) Rehabilitation and expansion of cable network in Ulaanbaatar City
- (2) Improvement of telephone density in Ulaanbaatar City
- (3) Improvement of the coverage of telephone service in suburban areas of Ulaanbaatar City

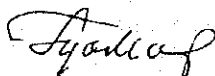
Ulaanbaatar, 22nd June, 1995



Mr. G. BATTUR  
Director General  
Telecommunication Department  
Ministry of Infrastructure  
Development



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



Mr. O. TOMUR  
Director General  
Mongolian Telecommunications  
Company

## LIST OF PARTICIPANTS

## 1. Mongolian side

## (1) Ministry of Infrastructure Development Mongolia

Mr. G. BATTUR	Director General, Telecommunication Department
Dr. Ph. S. GANBAATAR	Deputy Director General, Telecommunication Department
Dr. B. SUKHBAATAR	Assistant Professor/ Adviser to Minister
Mr. G. BASANJAV	Officer, Telecommunication Department
Mr. L. OSGON	Officer, Telecommunication Department
Mr. D. BARSUREN	Legal Assistant

## (2) Mongolian Telecommunications Company

Mr. O. TOMUR	Director General
Dr. G. BAYARSUREN	Chief, Technological Planning Division: Project Manager, P. I. U.
Mr. R. JARGALSAIKHAN	Manager, International Cooperation Division

## (3) Communication Research and Production Institute

Ms. D. DOLGORSUREN	Head of Telecommunication Section
Ms. Sh. BAT-CHIMEG	Engineer

## (4) Embassy of Mongolia (in Japan)

Ms. L. NASANBUYAN	Attache (Commercial and Economic)
-------------------	-----------------------------------

## 2. Japanese side

Mr. Motoyuki MUKODA	Leader/ Preparatory Study Team
Mr. Osamu MAKINO	Network Plan
Mr. Takashi SUGAWARA	Project Officer
Mr. Masami MURATA	Switching Plan
Mr. Masao KATO	Cable Plan
Mr. Ryo OTSUKA	Interpreter (Mongolian/ Japanese)

(17) (15)

## QUESTIONNAIRE

This questionnaire shows a list of minimum information which shall be required essentially in the Preparatory Study for the Study of Ulaanbaatar City Telecommunication. MONGOLIAN Telecommunications Company (hereinafter referred to as "MTC") is requested to prepare answers in written form together with supporting data/documents to the following questionnaire prior to the arrival of JICA Preparatory Study Team, using most up-dated and reliable data as much as possible. Please note that the items marked with " \* ", which should be used as a basis for discussions during the Preparatory Study, shall not be lacked in the answers prepared.

### 1. General information

- 1.1 Statistical data on national economic and social conditions for ten years by administrative units and whole country and predicted rate of growth
- 1.2 Population census data in each administrative units
- 1.3 Number of establishments (companies, factories, hospitals, hotels, etc.) and their locations in Ulaanbaatar City
- \* 1.4 Maps, topographical drawings, land usage plans (whole country and Ulaanbaatar City)

### 2. Development plans

- \* 2.1 National development plan and regional development plans
- \* 2.2 Ulaanbaatar City development plan and relevant projects in progress/consideration
- \* 2.3 Priority of telecommunications sector in the national development plan
- \* 2.4 Policy/Strategy, order of priority and issues to be stressed on telecommunications development in terms of:
  - 2.4.1 Local loop network
  - 2.4.2 Trunk network
  - 2.4.3 International network
  - 2.4.4 Rural network
  - 2.4.5 Mobile telephone network (including inter-connection condition with existing network)
  - 2.4.6 Other services networks (ISDN, Telex, Data, Leased circuit, Paging, etc.)
  - 2.4.7 Project implementing agency
  - 2.4.8 Operating agency for service and/or network
  - 2.4.9 Investment and financing
- \* 2.5 Plans, projects and external assistance/investment on telecommunications development in progress and/or under consideration with description of followings:
  - 2.5.1 Name of each plan, project or assistance
  - 2.5.2 Target area (international, nation-wide, provincial, rural, etc.)
  - 2.5.3 Target service and network (Mobile, Telephone, Telex, Data, etc.)
  - 2.5.4 Objectives of each plan, project or assistance

- 2.5.5 Implementing schedule
- 2.5.6 Cost and financial resources (self, grant, loan, BOT, etc.)
- 2.5.7 Kind of external assistance or investment (technical and/or financial)
- 2.5.8 Name of external assistant or investor (WB, ITU, UNDP, ADB, Foreign Government, etc.)
- 2.5.9 Outline of assistant's work and contract condition

### 3. Control and Organization in the telecommunications sector

- \* 3.1 Laws and Regulations on telecommunications
  - 3.2 Radio frequency control (frequency assignment, license, etc.)
- \* 3.3 Organization structure of telecommunications sector including private agencies
- \* 3.4 Organization chart with description of responsibilities and duties of each department of the Ministry of Infrastructure Development (hereinafter referred to as "MID") and MONGOLIAN Telecommunications Operating Company (hereinafter referred to as "MTOC") as well as the MTC
  - 3.5 Number of personnel in MID, MTOC and MTC and their distributions on an internal organization structure basis (department, division, etc.) as well as on Personnel classification basis according to professions or duties
- \* 3.6 Outlines of human resource development (HRD) plan and existing training centers
- \* 3.7 Particular plan or possibility for restructuring organization in terms of:
  - 3.7.1 privatization of telecommunications services
  - 3.7.2 introduction of self-supporting system into telecommunications services
  - 3.7.3 introduction of competitive market into telecommunications services
- \* 3.8 Present problems on control, organization and HRD

### 4. Financial status of the MTC

- \* 4.1 Balance sheet, Source and application of funds, and Income statement (recent 10 years)
- \* 4.2 Financial assistance from abroad
  - 4.3 Operation and maintenance cost
  - 4.4 Personnel expenses on classification basis
- \* 4.5 Present problems on finance such as finance resource, revenue collection efficiency, etc.

### 5. Conditions of MTC's telecommunications services

- \* 5.1 Kinds of services (classified in automatic call, manual call) and their service area
  - 5.2 Directories of telecommunications services in Ulaanbaatar City
- \* 5.3 Number of following items, tabulated by administrative units (recent 10 years):
  - 5.3.1 Telephone subscribers
  - 5.3.2 Telephone sets and Facsimile terminals, public telephones, PABXs

- 5.3.3 MTC's offices for telephone, telex and telegraph
- 5.3.4 Telex subscribers and telex terminals
- 5.3.5 Users of data communications and data terminals
- 5.3.6 Users of mobile communications and mobile terminals
- 5.3.7 Leased circuits and its customers (with terms and conditions of service)
- \* 5.4 Telephone service grade :
  - 5.4.1 Backlog (waiting list) for subscription, tabulated by administrative units
  - 5.4.2 Call completion rate of whole country and of Ulaanbaatar City
  - 5.4.3 Failure Rate for subscriber lines of whole country and of Ulaanbaatar City
  - 5.4.4 Average repair time of whole country and of Ulaanbaatar City
- \* 5.5 Tariff structure and charging plan of each service
- 5.6 Outgoing and incoming traffic data at each exchange in Ulaanbaatar City
- \* 5.7 Present problems on service operation

## 6. Present status of telecommunications networks and facilities

- 6.1 Technical standard for telephone network
  - 6.1.1 Switching hierarchy
  - 6.1.2 Numbering plan
  - 6.1.3 Signaling systems plan
  - 6.1.4 Routing plan
  - 6.1.5 Subscriber network design standard
  - 6.1.6 Transmission plan
  - 6.1.7 Synchronization plan
- \* 6.2 Local switching facilities in each administrative unit
  - 6.2.1 Model, location and capacity of each switch
  - 6.2.2 Number of DELs (Direct Exchange Lines) installed and used in each switch
  - 6.2.3 Commencement date for operation
  - 6.2.4 Coverage of each switch
- 6.3 Toll switching facilities
  - 6.3.1 Model, capacity, commencement date for operation, coverage and its location
  - 6.3.2 Number of operating trunk circuits
  - 6.3.3 Route map of trunk circuits
- \* 6.4 Junction network
  - 6.4.1 Configuration and route maps of junction network in Ulaanbaatar City
  - 6.4.2 Type, capacity and number of used channels of each transmission line
- 6.5 International network and facilities
- 6.6 Telex network and facilities
- \* 6.7 Outside plant
  - 6.7.1 Present status of subscriber cables connected to MDF in each administrative unit with number of:
    - Total pairs
    - Used pairs

- Vacant pairs
- 6.7.2 Present status of subscriber cables connected to MDF in each local switch in Ulaanbaatar City with number of:
  - Backlog (waiting list)
  - Total pairs
  - Used pairs
  - Vacant pairs
  - Deteriorated pairs to be replaced
  - Used conduits and vacant conduits
  - Cables
- 6.7.3 Installation methods of subscriber cables (aerial, duct/conduit and burial)
- 6.7.4 Radio subscriber system (wireless local loop system)
- 6.7.5 Typical example of subscriber cable route maps in Ulaanbaatar City
- 6.7.6 Regulations concerning usage of roads for construction of poles, ducts, etc.
- 6.8 Transmission systems (long distance systems)
  - 6.8.1 Model, capacity and number of used channels in each system
  - 6.8.2 Route maps
- 6.9 Rural networks and facilities
- 6.10 Mobile telephone network and facilities (configuration, inter-connection with other networks)
- \* 6.11 Lands and buildings of MTC in Ulaanbaatar City
- 6.12 present stability of commercial power supply in Ulaanbaatar City
- \* 6.13 Present problems on MTC's telecommunications network facilities, especially in Ulaanbaatar City

## 7. Operation and maintenance

- 7.1 Inventory control standard concerning to spare parts and consumable
- 7.2 Present organization and staffing on operation and maintenance
- \* 7.3 Present problems on operation and maintenance for telecommunications facilities (lack of spare parts, electric power supply, air-conditioning, civil facilities, etc.)



付属資料 5 主要面会者リスト

1. モンゴル組織

(1) Ministry of Infrastructure Development Mongolia

Mr. T. DAMIRAN	Vice Minister
Dr. Ph. S. GANBAATAR	Deputy General Director Telecommunication Department
Dr. B. SUKHBAATAR	Ass. Prof. / Adviser to Minister
Mr. N. ZAAHUU	Senior Engineer
Mr. G. BASANJAV	Officer Telecommunication Department
Mr. L. OSGON	Officer Telecommunication Department
Mr. D. BARSUREN	Legal Assistant

(2) Mongolian Telecommunications Company

Mr. O. TOMUR	General Director
Mr. N. NANSALJAV	Deputy Director General
Dr. G. BAYARSUREN	Chief, Technological Planning Division: Project Manager, P. I. U.
Mr. R. JARGALSAIKHAN	Manager International Cooperation Division
Ms. ALTANTSWTSWG	O.S. P. Engineer, P. I. U. Member
Ms. Ts. GANBOLD	O.S. P. Engineer, P. I. U. Member
Mr. D. ODMAA	Officer, P. I. U. Member
城後 堅一	MTC Consultant

(3) Communication Research and Production Institute

Ms. D. DOLGORSUREN	Head of Telecommunication Section
Ms. Sh. BAT-CHIMEG	Engineer

(4) Embassy of Mongolia (in Japan)

Ms. L. NASANBUYAN	Attache (Commercial and Economic)
-------------------	-----------------------------------

(5) National Development Board under the Prime Minister of Mongolia

Mr. O. BATSAYKHAN	Deputy Director General
Mr. D. RENTSENDORJ	Expert
Mr. B. TIMUUJIN	

(6)Communication Service Sales Department of Government

Mr. B. TUMURSUKH                      Head of communication Office at the Parliament  
Mr. G. SHARANDEMBEREL              Head of Telecommunication Group

(7)Mayor's Office, Ulaanbaatar City

Mr. T. JADAMBAA                      Chief, City Constructin & Planning Office General  
Architect

2. 外国組織

United Nations Development Programme

Ms. Anna Stjarnerklint                Deputy Resident Representative  
Mr. Oswaldo Santana                  Administrative Officer  
Mr. Jorn Sorensen                      Programme Officer

3. 日本組織

(1)在モンゴル日本国大使館

特命全権大使              蓮見 義博 閣下  
参事官                      城所 卓雄 氏  
一等書記官                香川 敬三 氏

(2)JOCV(JICA)モンゴル調整員事務所

所長                          佐々木幸男 氏  
協力隊調整員              大野 龍夫 氏  
JICA専門家  
国際電話交換              伊藤 勇 氏  
国際衛星通信              藤川 宗一 氏  
JICA青年海外協力隊員  
無線通信担当              平山 一郎 氏 (技術大学教師)  
線路保守担当              武田 欣也 氏

(3)JICA中華人民共和国事務所

所長                          熊岸 健治 氏  
次長                          藤田 廣己 氏  
所員                          渡辺 雅人 氏

付属資料 6 現地調査経費資料(1995年6月現在)

◎コピー代 (Bayangol ホテル/ビジネス・センター)

A4サイズ片面1枚	コピー用紙持参の場合	40TG
	コピー用紙ない場合	44TG
A4サイズ両面1枚	コピー用紙持参の場合	60TG
	コピー用紙ない場合	66TG

◎ホテル宿泊料金 (Bayangol Hotel)

シングル・スタンダードタイプ 65US\$+10%の税金  
シングル (割引料金) 約56US\$+10%の税金

◎現地通訳 (日本語～モンゴル語)

ウランバートル市内の会社「ブリッジ」に依頼した場合  
(ブリッジの電話番号はウランバートル市の358005 ファクシミリも同じ)  
1日につき150ドル程度 (モンゴル人で、JICAの高度な通訳に対応可能)

◎レンタカー (運転手、ガソリン代込み)

30US\$/日 (市街地のみ走行の場合)  
40US\$/日 (郊外へ出向く場合)

◎チップ ホテル/レストランはサービス料が含まれており通常は不要。

◎日本向け通信

Bayangol Hotel /ビジネス・センターから国際ファクシミリを送付する場合  
1分以内で通信できる時 5US\$  
Bayangol Hotel備え付けのジャパンダイレクトを利用して通話する場合  
番号通話で3分間まで1,780円、以降1分ごとに470円  
客室から電話する場合  
1分ごとに6.6US\$(1秒ごとに0.11US\$)・・・税金を含む

〈その他の情報〉

◎為替交換レート 1US\$=約450TG

◎電気 220V、50サイクルA.C.

◎連絡用無線電話

周波数免許をとることにより、7.415MHzの無線機を50US\$/年程度で利用できる。

◎コピー機のレンタルは現在のところ利用できない。

◎コピー用紙はA4の大きさなら現在のところ手に入れることができる。

付属資料 7 主要収集資料リスト

- |  |         |
|--|---------|
| 1. モンゴルマスタープラン(BT作成) 一式  | MTCより   |
| 2. Confidential Information Memorandum-in Respect of the Proposed Sale Shares Mongolian Telecommunications Operating Company (by the Government of Mongolia : Jan. 1995) | MTCより   |
| 3. MONGOLIA Annual Economic Development Report pink cover  | 市販      |
| 4. Mongolian Economy and Society in 1993 (in English)  | 市販      |
| 5. Mongolian Economy and Society in 1993 (in Mongolian and English)  | 市販      |
| 6. Monthly Bulletin of Statistics (as of 1st January 1995)   | MOIDから  |
| 7. モンゴル・インフォメーション (95/3/26)  | 日本大使館から |
| 8. ウランバートル市市内地図  | 市販      |
| 9. Mongolian Telecommunications Sector Policy Statement  | MOIDから  |
| 10. Telecom Master Plan (BT Telconsult) マスタープラン抜粋  | MTCより   |
| 11. Cellular Telephony Service Specification   | MTCより   |
| 12. Cellular Policy  | MOIDから  |
| 13. Mongolian Telecommunications Project Monthly Progress Report for May, 1995<br>Mongolian Telecommunications Project Quarterly Report for the First Quarter of 1995    | MTCより   |
| 14. Terms of Reference for Consulting Services for a Corporate Plan and a Human Resource Development Master Plan for the Mongolian Telecommunications Company            | MTCより   |
| 15. NETWORK PLANNING: SYNDICATE OUTPUTS (BT Telconsult)  | MTCより   |
| 16. The Transmission on-going Project  | MTCより   |
| 17. THE TRANSMISSION LONG TERM PLANNING  | MTCより   |
| 18. Aide Memoire for the Asian Development Bank's Review Mission for Loan No.1300-Mon: Telecommunications  | MTCより   |

- |   |              |
|---|--------------|
| 19. Operations & Maintenance Actions plan for Improvement of O&M and Customer Service<br>(France Telecom Sofrecom: June 1995) | MTCより        |
| 20. Japan ODA Project list  | 日本大使館から      |
| 21. Loan Regulations; Definitions   | MOIDから       |
| 22. Telecommunication Act of Mongolia   | MOIDから       |
| 23. TELECOMMUNICATION LAW OF MONGOLIA   | MTCより        |
| 24. Charter of Communication Regulatory Body  | MOIDから       |
| 25. Optical Fibre Local Area Network (LAN)  | MTCより        |
| 26. Mongolian Telecommunication Company   | MTCより        |
| 27. Organization Chart of the MOID of Mongolia  | MOIDから       |
| 28. Organizational Chart of MTC   | MTCより        |
| 29. Organizational Structure of Mongolian Telecommunication Company   | MTCより        |
| 30. (Organization of) Project Implementation Unit (PIU)   | MTCより        |
| 31. Brief information of the School of Information Engineering Mongolian Technical University                                 | MOIDから       |
| 32. Mongolian Technical University blue cover   | Universityより |
| 33. Privatisation of Mongolian Telephone Company  | MOIDから       |
| 34. Mongol Telecom Balance Sheet -December 31, 1994   | MOIDから       |
| 35. Loan Agreement between Mongolia and Asian Development Bank (Mongolia, Asian<br>Development Bank :2 August 1994)           | MTCより        |
| 36. Staff costs (table)   | MTCより        |
| 37. Kind of Service   | MTCより        |
| 38. ウランバートル市電話帳 ご利用の方へ  | 市販           |
| 39. 各県公的機関電話帳 ご利用の皆様へ   | 市販           |

40. Actions Guide for Quality of Service (France Telecom Sofrecom: June 1995) MTCより
41. Present Problems on Service Operation MTCより
42. Actions Guide for Quality of Functioning in Switching (France Telecom Sofrecom: June 1995) MTCより
43. Actions Guide for External Plant & Customer Lines (France Telecom Sofrecom: June 1995) MTCより
44. Mongolian Telecommunications Project Technical specifications for Outside Plant (Dec. 1994) 大地図セット MTCより
45. Ulaanbaatar City Table  
(distance from Ulaanbaatar, Population, Switching capacity, transmission type) MTCより
46. ウランバートルの地域割り 手書き地図 MTCより
47. District Name in Ulaanbaatar MTCより
48. ULAANBAATAR TELEPHONE NETWORK(Fugyre : Nov. 1994) MTCより
49. Ulaanbaatar Main Cable MTCより
50. Mongolian Telecommunications Project for Outside Plan MTCより
51. Capacity and Trunk Diagram of International Telephone Network in Mongolia MTCより
52. International Gate-way Switching 国際発信トラフィックを含む MTCより
53. Existing Analogue Transmission System New Digital Transmission System/ Fork Diagram MTCより
54. 行政機関ネットワークについて 内閣より
55. Operations & Maintenance Review of the Current Situation, Analysis First Recommendations (France Telecom Sofrecom: June 1995) MTCより
56. Ulaanbaatar Switching Department MTCより
57. Province and District Telecommunication Offices MTCより

付属資料 8 関連資料

1. Telecommunication Act of Mongolia
2. Charter of Communication Regulatory Body (Draft)
3. Cellular Policy
4. Privatisation of Mongolian Telephone Company
5. Mongolian Telecommunications Sector Policy Statement
6. Brief Information of the School of Information Engineering

# TELECOMMUNICATION ACT OF MONGOLIA

## Chapter one: General Provisions

### Article 1. Purpose of the Act

The purpose of this Act is to regulate the relations emanating from and in connection with the creation, utilisation and protection of the telecommunications network in Mongolia and various telecommunication services delivered to public and private clients.

### Article 2. Telecommunication legislation

1. Mongolian telecommunication legislation shall consist of the Constitution of Mongolia, this Act and other legislative acts of Mongolia, adopted in accordance with the Constitution.
2. If international agreements that have been ratified by Mongolia stipulate regulations that are different from those in the current Act, the international agreements shall prevail.

### Article 3. Definitions

In this Act, the following interpretations are used:

1. Telecommunication line means any conductors (wire, space etc.) used for broadcasting, transmitting and receiving information and insulators, ducts, poles, towers and other types of materials employed for their protection.
2. Telecommunication network means a set of lines and technical equipment used for transmitting information between two or more subscribers and a system set up for receiving, sorting, transporting and delivering.
3. Telecommunication operation means necessary repair, maintenance, test and adjustment in telecommunication network to ensure its normal and smooth functioning.
4. Telecommunication service means a service provided by means of communications network to meet the needs of the customers.



5. Demarcation point means the point at which an interconnection between operators or between the operator and customer occurs.
6. "Postal items" means letter post items and parcels sent by the customers through the postal network.
7. "Postal address and index" means the address of the customer (person, business entities and other organisations) including the name of their place of residence or location (name of the aimag, city, somon, district, bug, khoroo, town, village and street) and the operator number.
8. "Post stamp, securities" means post stamp, envelopes, postcards with printed post stamps and others for postal mailing.

## **Chapter Two: Governmental and Regulatory Bodies in Telecommunications and their Duties and Rights**

**Article 4. Governmental Body in telecommunications sector shall be entitled to the following rights:**

1. Formulate a policy on the development of telecommunications sector
2. Promote fair competition in telecommunication sector
3. Formulate and implement an investment policy
4. Plan and allocate radio spectrum and issue licence for frequency utilisation
5. Set up telecommunication network and service standards and define service performance targets and control over their implementation
6. Issue post stamps, other securities and create a stamp and sealing wax
7. Create state fund of post stamps, other postal securities and exercise the right of maintaining this fund.

## **Article 5. Regulatory Board**

*Check this paragraph*

A Regulatory Board hereinafter referred to as Commission shall be established for the purpose to prohibit a monopoly and to encourage fair competition in the telecommunications sector and to ensure with the circumstance to follow Mongolian legislation related to telecommunications.

## **Article 6: Establishment of Commission**

1. Government shall determine the composition of the Commission and approve its charter

*Check this*

2. The Secretary of the Commission shall be a full-time staff member and be nominated or resigned by the Minister in charge for telecommunications.

## **Article 7. Rights of the Commission**

The Commission shall be entitled to the following rights:

1. Control over the implementation of the regulation on telecommunications operation, service and manufacture.
2. Control over the process of granting permission to carry telecommunication operation, service and manufacture.
3. Control over the telecommunications operation and service standard, agree technical conditions and requirements for CPE type-approval.
4. Define the methodology for setting up a service charge structure.
5. Review and solve any complaints of telecommunication operation and service
6. Elaborate Government policy on telecommunications sector development and submit it to the Authority concerned.

## **Article 8. Licensing**

1. Anyone who wishes to get a licence for running a telecommunication operation and service and manufacture shall file the following documents:
  - 1). an application for running telecommunication operation, service and manufacture;
  - 2). operator's report on the telecommunication network and its equipment capacity and economic and financial indicators;
  - 3). interconnection and other technical agreements concluded with other operators; and
  - 4). permission obtained from local government for land acquisition.
2. The Governmental Body in telecommunications shall grant a license with consent of the Commission.

## **Chapter three: Communication network**

### **Article 9: Classifications of network**

1. Communication network is classified under telecommunication, postal, radio and TV broadcasting network.
2. Communication network classifies public, internal and special communication according to its functions.

### **Article 10: Telecommunication network**

1. Telecommunication network shall comprise of lines, equipment assigned for transmitting sign, signal, sound, images and any other kind of information, and buildings specially equipped for this purpose.

2. The core telecommunication network consists of international, trunk, local transmission and switching equipment.
3. Telecommunication core network shall have an integrated management and smooth functioning.

#### **Article 11. Postal network**

1. Postal network consists of a system for receiving, sorting, transporting and delivering postal items.
2. Postal core network shall consist of the postal network used for international and domestic mail exchange.
3. The postal core network shall be under the government management.
4. Time-schedule for mail delivery shall be determined by:
  - 1). agreement concluded with foreign countries for international mail delivery;
  - 2). decision of the Minister in charge for domestic mail delivery; and
  - 3). decision of related local Governor for local mail delivery.

#### **Article 12: Radio and TV Broadcasting network**

1. Radio and TV broadcasting network shall consist of equipment and lines assigned for receiving and transmitting radio and TV broadcasting.
2. A set of equipment and lines used for delivering radio and TV programme to the customers throughout the country shall form a radio and TV broadcasting core network.
3. Mongolian radio and TV broadcasting network shall operate according to the timetable agreed with the organisation which produces the programmes.

4. Aimags, the capital city, towns and villages may have their own radio and TV broadcasting network.

#### **Article 13. Communication network for special purpose**

1. Communication network for special purpose means communication network assigned for defence, security, and maintenance of public order needs and high level government officials.
2. The public communication telephone circuits and technical facilities shall be used for special communication needs on the basis of a contract at a cost.
3. Measures to be taken for protection of the privacy of the special purpose information handled through the public communication shall be the responsibility of the special communication organisations.
4. Communication network for special purpose shall be under the Government protection.

#### **Article 14: Communication network for internal purpose.**

1. Any Mongolian state and non-governmental organisations (NGOs) and all economic entities may establish and use internal communication for their internal purpose and technological management and operative co-ordination.
2. Internal communication network may be used for public communication service on the basis of a licence granted by the Government Authority in telecommunications.

#### **Article 15: Connection to public communication network.**

*This paragraph needs rewording*

Funding and supply with additional lines and other equipment to be installed in the network till the demarcation point or at the demarcation point for connection of the internal and special communication network to the public communication network shall be responsibility of the owner of the internal or special communication network. Location of the demarcation point shall be determined by the Government Authority in telecommunications with consent of the Commission.

#### **Article 16. Mobilisation of communication network.**

In the case of a commandant situation and major military action the communication network shall be mobilised in accordance with the provisions stipulated in the corresponding Mongolian legislation for commandant situation and military actions.

#### **Chapter four: Rights and duties of telecommunication operators and customers.**

#### **Article 17. Rights of economic entities and organisations running telecommunication service, operation and manufacturing.**

1. Economic entities and organisations running telecommunication service, operation, and manufacture hereinafter referred to as "Operator" shall have the following rights:
  - 1). offer and provide communication service to the customers without discrimination according to the licence granted;
  - 2). follow the regulations on telecommunication service, operation and manufacture procedures;
  - 3). define and apply the telecommunication service charge structure in accordance with the methodology agreed with Commission;
  - 4). make available information to Commission;
  - 5). provide subscribers with notice in advance of planned service changes, or interruptions which may occur due to service up-grading and expansion activities;
  - 6). protect the privacy of the information transmitted through the communication network;
  - 7). allow the use of communication network by others during periods of national emergencies and disasters or other catastrophes, on a priority basis in accordance with legislation;

- 8). refrain from discontinuing service and reducing capacity of the equipment except under national emergencies and disaster or other uncontrollable circumstance;
  - 9). refrain from restricting the subscribers' rights and requiring more things which are not stipulated in the legislation; and
  - 10) discontinue the service and cancel the agreement if the subscribers fail in fulfilling their obligation several times.
2. Employees of the Operators shall get permission from concerned organisation for entering and working on the premises of special organisations ,the entrance to which is prohibited, in order to repair and maintain their communication lines and network.
  3. Undelivered postal items which do not bear a clear returning address shall be held for six months and after this period a commission (established for the purpose) shall open the mail and make a record the contains of the mail.
  4. If civil documents and a clear address are found inside the mail, proper measures shall be taken for further delivery.
  5. The contents, discovered when the mail is opened, shall be maintained as follows: bank notes, currencies and precious articles shall be transferred to the State bank; civil documents shall be transferred to the civil registration organisation; books, publication, postal stamps and other possessions shall be sold to institutions or people, interested in the price on the day, and revenues from this action will go to the Government.

*This needs rewording*

6. Any person interested in may conclude an agreement with the Operator on renovating certain part of the core network, investing introduction of new services and establishing their own network in area which is not covered by the core network.

#### **Article 18: Communication customers' rights**

Communication customers shall be entitled to the following rights:

1. Use telecommunication terminals (including telephone set, telex and facsimile machines and their auxiliaries) which meet standards and technical requirements.
2. Receive attentive, efficient service at any time.
3. Demand complete and timely repair of damaged and malfunctioning of communication facilities in use
4. Refuse to pay for any service charges for the periods of discontinued communication services or for non-functioning facilities in use, except under national emergencies or natural disaster, and be compensated for any direct losses incurred.
5. Complain of communication services and operation.
6. Diligently maintain and protect the communication network and technical facilities installed in their offices or apartments and area under their possession and notify the operator about any damage incurred or that might be incurred.
7. Make payment for communication services in time according to the agreement.
8. Get permission from the Government Body in telecommunications for installing and using equipment which emit frequencies above 9 KHZ and not to cause a hindrance to smooth functioning of other equipment.

**Article 19: The mutual obligations of the operators and customers.**

The mutual obligations of the operators and customers shall be regulated by the business contract to be concluded between them.

**Article 20: Common requirements for the individuals, economic entities and organisations.**

Individuals, economic entities and organisations are required to:

1. Get permission from the operator for carrying out investigation and designing construction of buildings or engineering lines and bear costs for any relocation.
2. Include the secondary cable, subscriber cable box, built-in wire and their ducts in designing construction of new buildings in compliance with construction norm



3. Solve the matters related to the communication while developing urban or village, constructing new buildings and setting up ger (Mongolian dwelling) region or relocating the ger region.
4. Individuals, economic entities and organisations carrying out passenger transportation shall be responsible for mail safety and security.
5. All level governors shall take measures to provide definite addresses for all streets, squares, buildings, and apartments in their territory.

## **Chapter five: Rights of way and protection of rights of way.**

### **Article 21. Rights of way**

1. "Rights of way" means a part of common use land and space assigned for communication network. The dimensions of the rights of way shall be as follows:
  - 1). Open wire lines: 10 metres on each side
  - 2). Cables lines: 5 meters on each side
  - 3). Space in line of sight between microwave stations or between satellite and earth station for space communication and 500 metres beyond the station fence.
  - 4). Area determined to be harmful to human body. Size of this area is determined depending on the capacity of radio and TV transmitting stations equipment

Measures mentioned in provisions 1 and 2 of paragraph 1 shall not apply to communication lines along the auto roads and railways, or within towns and settlements.

2. The operator who has got a license for running telecommunication service and operation through the telecommunication network shall possess the rights of way in accordance with legislation.

3. Matters related to the rights of way of telecommunication lines shall be solved by the Government Body in telecommunications or local governments according to their power.

**Article 22: Protection of rights of way.**

1. Protection of telecommunication rights of way shall be the responsibility of the operator.
2. Signs, showing the rights of way, shall be put along the communication line
3. The following actions shall be prohibited within rights of way:
  - 1). Rights of way shall remain free of all obstructions, including buildings, gers, fences and trees,
  - 2). Rights of way shall not be used for disposal of any kind of heavy items and chemical caustic substances which may cause damage to the cable.
  - 3). Excessively tall loads shall not be transported within or across a rights of way.
  - 4). Any land developing actions shall be permitted within a rights of way on the basis of prior permission from the operator. After having executed any action within the rights of way, the concerned entity shall restore the natural environment of the right of way.

**Chapter Six: Other provisions**

**Article 23. Punishment of those who have contravened the legislation.**

1. If the actions of any person violate the communication legislation with a criminal element, they shall be liable to punishment according to Mongolian criminal code.
2. If the actions of any person violate the communication legislation with no criminal element, they shall be liable to the following administrative punishment by the communication inspector:

- 1). If the offender has caused damage to the communication facilities installed in the office, residential buildings or places of common use, the offender shall be fined from 5000 to 25000 tugrigs;
  - 2). If the offender has caused damage to the communication lines and network (communication cable, open wire line, subscriber cable box, built-in wire, transformer, ducts) due to carrying out investigation designing construction of buildings and engineering lines he shall be fined from 5000 to 35000 tugrigs and in the case of a business entity, the fine shall be from 50000 to 250000 tugrigs.
  - 3). If the offender has taken down or erased marks put along the telecommunication lines, caused damage to the telecommunication poles, or left extraneous matters in cable boxes or manholes and ducts he shall be fined from 3000 to 10000 tugrigs and in the case of a business entity the fine shall be 30000 to 150000 tugrigs.
  - 4). If the offender has operated or manufactured and entered into connection with the communication on lines and listen to or record information passing through them without permission, he shall be fined from 5000 to 35000 tugrigs, in the case of a business entity the fine shall be from 50000 to 250000 tugrigs.
  - 5). If the offender contravenes the provisions 3,4 of article 22 of this Act, he shall be fined from 2000 to 35000 tugrigs, in the case of a business entity the fine shall be from 50000 to 250000 tugrigs.
  - 6). If the offender has sent or received to send by post prohibited items or he has sent more items than he is permitted he shall be fined from 1000 to 20000 tugrigs.
  - 7). If the offender violates the provisions 1,2,3,5,6,7,8,9 of the 1st paragraph of article 17 of this Act he shall be fined from 5000 to 25000 tugrigs.
3. If the offender violates the provision 7 of article 18 of this Act he shall pay an interest of 1.5 per cent per each day delayed in payment for service charge. The total amount of interest shall not exceed 50 per cent of the total amount to be paid.

#### **Article 24: Compensation of the loss**

1. The victim concerned shall have the right to claim compensation, for the loss caused by contravention of the communication legislation, from the offenders.

**Article 25: Entry into force**

This Act shall enter into force on the..... of....., 1994

*Approved by the Government resolution #.....*

## **Charter of Communication Regulatory Body**

### **One. General Provision**

1.1 The Communication Regulatory Body (hereinafter referred as Regulatory Body) is a unit carrying the duty and rights for regulation between economic entity and users directed to effective implementation of the Government policy to develop the sector, introduction of fair competition to the sector operation and service, suited to conditions of market economy.

1.2 The R.B is to be established in form of Minister undertaking unit in charge of communication sector (Minister of ID).

1.3 The R.B will be consisted from full time General Regulator, two part time Regulators and experts.

1.4 General Regulator and Regulators will be appointed by Cabinet in recommendation of ID Minister.

1.5 The G.R. and Regulators need to have experience on designing sector development policy and regulation , decision making with skill of handling governmental business.

1.6 The R.B will be consisted by Regulators experienced in finance, jurisdiction, management and production.

1.7 General Regulator and Regulators will be appointed for fixed 3 years, and renewable terms.

1.8 General Regulator during his appointment will be refused by party subordination.

1.9 Full time telecommunication expert to G.R will be appointed by ID Minister.

1.10 The G.R can hire a part time expert to Regulators on basis of agreement for professional expertises if required.

1.11 Expert to the G.R should have a background of working experience of no less than 10 years in communication sector including its branches, and enough skill to develop the sector policy and regulate problems as well.

1.12 The R.B will be subsidised by the Government.

1.13 The R.B will be pursuant to Mongolian Laws, this Charter.

1.14 The R.B will have its own letter-form and stamp.

1.15 The R.B will report to Cabinet through ID Minister.

### **Two. Duties of Regulatory Body**

#### **2.1 Monitoring Licence conditions**

- Checking every 6 months whether sector operators are meeting their licence conditions
- Clarification of licence conditions granted to any communication operator, proposing to Governmental Body's decision on changes required to licence conditions for renewal or revokation.
- Commenting to Governmental Body on review of monopoly for basic service where competition is prohibited.

#### **2.2 Setting up service levels**

- Setting up the quality levels and definition of performance targets for sector service
- Reviewing every 5 years service quality levels
- Checking every 6 months whether sector operators are meeting these levels.

#### 2.3 Service price regulation

- Setting up and constantly monitoring the price level for services where competition is not allowed
- To set up price basket principles for monitoring service tariffs and regulate operators prices if necessary

#### 2.4. Type approval

- To determine type of equipment and devices needed for type approval
- To set up standard requirements for type approval and revise them every 3 years
- To authorise organisation for type approval service according to their technical ability and working skill
- To determine foreign organisation for type approval service if necessary
- To approve rule of detailed procedures for type approval and monitor implementation
- To check every 6 months whether operators get type approval

#### 2.5 Complaints

- Setting up the rules for sorting out complaints and announce it to public
- Revision of rules for complaints' satisfaction every 2-3 years
- Monitoring every 6 months function of operator for following rules to arbitrate complaints

#### 2.6 Numbering plan

- Negotiating and reviewing every year numbering plan with operators

#### 2.7 Disputes

- Checking issues causing disputes of one licensee on licence conditions of others and if required to propose to Governmental organisation on revision of licence conditions
- Sorting out disputes between sector operators on matters such as interconnection

#### 2.8 Code of practice

- Monitoring whether operator meets requirement of code of practice and approve issues negotiated with operator on changes of code of practice

#### 2.9 Privacy

- Monitoring whether operators meet requirement of rules for subscribers privacy and review the rule's condition

### Three. Rights of Regulatory Body

3.1 Ask for required information from licensee in determined period to check that licensee is complying with licence conditions granted by the Governmental organisation

3.2 Get access to business of telecommunication entity, to meet the management for discussion when required.

3.3 The R.B can require licensee to correct mistake in certain period if it's found that licensee fails the terms of licence.

3.4 Bring operator into Court if he does not follow to R.B's decision

3.5 Recommend to suspend the licence granted to communication entity if licensee shows continues to unsatisfactory operation.

- 3.6 Arbitrate the disputes, handling customers and licensee complaints.
- 3.7 Use consultative documents for customer complaints if required.
- 3.8 Advertise and issue service information brochure.
- 3.9 Recommend to the Governmental organisation to promote and develop sector policy.
- 3.10 Report activities to Governmental organisation semi-annually, brief Cabinet.
- 3.11 Comment on definition of licence policy
- 3.12 Cooperate with Consumer protection Society and other public organisation on telecommunication service.
- 3.13 Administer relations with similar international organisations on basis of negotiation with Governmental organisation.
- 3.14 Cooperate with type approval organisation on basis of agreement
- 3.15 Cooperate with Communication department Governmental organisation and other related organisation to set up equipment's and service quality standards.

#### **Four. Responsibilities of R.B**

- 4.1 The members of R.B staff failed their duties and internal obligations will be imposed an administrative punishment.
- 4.2 Wrong usage of position, creation of false documents, provision of unfair reference, definitions and confirmation will be imposed for admin and criminal punishments according to their faults.
- 4.3 Termination of staff appointment
  - 4.3.1 for inability to carry duties
  - 4.3.2 for neglecting duties
  - 4.3.3 for conviction of a crime

#### **Five. Internal Operation of the R.B.**

- 5.1 The G.R. carries day-to-day operation and all regulatory aspects of the R.B.
- 5.2 The G.R. calls on meetings of R.B (G.R. and other regulator) if required, by not less than 14 days' written notice before meeting stating agenda and other information.
- 5.3 Meetings called to solve important and complicated issues.
- 5.4 R.B activity is pursuant to resolution of meetings.
- 5.5 Communication expert to the G.R. is in charge of investigation of certain issues, recommendation of comments, and day-to-day function.
- 5.6 Policy statement of the R.B's yearly activity will be determined by the advice of Minister in charge.
- 5.7 Working group of the Governmental organisation's staff and communication entity will be set up for designing principles and proposals if required.
- 5.8 Any comments and complaints from customer and any resolutions for these complaints will be handled by written notice.
- 5.9 Follow the recommendation of ITU and other standardisation bodies in R.B's activity.

**Cellular Policy**  
of Ministry of Infrastructure Development Mongolia

**General conditions**

**First licences**

**Later licences**

General conditions-technical

- Provision for two cellular licences
- Mobile data and facimile services, as well as voice services, at reasonable price.
- Designed to international standards

General conditions-regulatory

- Approval of tariffs (until monopoly expires)
- Comply with radio regulations
- Advise proposed base station locations
- Annual licence fee to the Government
- Interconnection agreement with MTC

First licence- technical

- Technology chosen at shortlisting stage
- First licencee allocated half available channels
- First licence determines Mongolian cellular standard

First licence-regulatory

- 20 year term
- Nation-wide licence
- No further licences until end of 1998, unless:
  - MTC monopoly removed prior to 1998
  - licencee not serving a particular area well
- Licence not allowed share-holding in MTC

Subsequent licences -technical

- same technology as first licencee
- second licencee allocated remaining channels

Subsequent licences-regulatory

- 20 year term
- nation-wide licence
- licencee allowed share-holding in MTC



# PRIVATISATION OF MONGOLIAN TELEPHONE COMPANY

## Privatisation Proposal

The form of privatisation proposed for the Mongolian Telephone Company (MTC) involves the Government splitting MTC into two companies; an asset owning company (MTAC) and an operating company (MTOC). The Government plans to retain 100% of the equity in MTAC, which will be administered by the Ministry of Finance, and to sell part of the equity in MTOC to private sector interests. The private sector interests will comprise:

- (i) management and staff of MTC, whose ability to participate will be provided through the Mongolian privatisation voucher system
- (ii) Mongolian citizens; and
- (iii) a foreign investor, who will be offered a strategic stake in MTOC through an international bidding process.

The rationale for splitting MTC into two companies is based on a desire by the Government to make the investment more attractive to prospective investors by lowering the cost of entry and minimising their financial risk. Moreover, the lower cost of entry will also allow greater participation of the management and staff of MTC and Mongolian citizens in the privatisation process. The Government see the financial risks applying to a foreign investor as relevant considerations given that:

- (i) the Mongolian economy has only recently begun to show signs of macro-economic stabilisation as it transits to a market based economy; and
- (ii) the Mongolian telephone network is in need of significant upgrading and expansion if it is meet the needs of the country and assist the country in its transformation to a market based economy.

The Government has not, as yet, made any decisions on the relative participation levels of Government and private sector interests in MTOC. It requests that bidders, in their indicative bids, comment on their desired level of share-holding, and it will take this information into consideration in deciding the appropriate level of private sector participation. Short-listed bidders will be advised of this decision in order for them to formulate their final bids.

As of early December 1994, the management and staff of MTC held approximately 4,000 large privatisation vouchers. Each voucher has a face value of Tug 7,000, and is eligible to be exchanged for shares in MTOC.

The Government has expressed a wish to offer shares in MTOC for sale to Mongolian citizens through the Mongolian Stock Exchange. The terms and conditions of the offering, if it goes ahead, will be set by the Government in consultation with the successful investor.

As the management and staff, and possibly other Mongolian citizens, will own shares in MTOC, the Government is considering two options for listing the private sector interests on the Mongolian Stock Exchange:

- (i) the private sector interests amalgamate their holdings in a listed private investment company which will be listed on the Stock Exchange; or
- (ii) MTOC itself lists on the Stock Exchange.

This decision on which option to pursue will be made after the Government has sought the views of interested parties.

### Key Features of the Privatisation Proposal

MTAC will own the network assets and property of MTC, and MTOC will operate these network assets and property, in accordance with the terms and conditions of a Lease Agreement from MTAC, to provide local, national and international telecommunication services for Mongolia.

MTOC will be authorised to provide telecommunication services in accordance with the terms and conditions of a Licence to be issued by the Ministry of Infrastructure Development under the provisions of the Telecommunications Law.<sup>1</sup>

Subject to certain exceptions noted below, the Licence will confer upon MTOC a near monopoly in basic telecommunications services until the end of 1998, at which time the need to retain the monopoly will be reviewed (see later section on Regulatory Environment). Existing private networks operated by the Mongolian Railway Company and other government organisations will continue to provide limited public telecommunications services under an interconnection agreement with MTOC in accordance with a basic licence. The circumstances by which other basic services licences may be issued prior to the end of 1998 are:

- (i) MTOC may request that its monopoly position be reviewed prior to 1998 if its network and service modernisation program has exceeded expectations. A positive outcome of such a review would justify the elimination of all the aforementioned entry restrictions, both for MTOC as well as for the other operators;
- (ii) if areas are not served, or not well served, by MTOC, other service providers may be permitted by the Regulator to provide basic services in these areas if they can demonstrate to the Regulator that they are capable of providing these services in the desired manner.

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<sup>1</sup> The Telecommunications Bill has been introduced into the Parliament, and is expected to be enacted in May 1995. If the Telecommunications Law has not been passed when it becomes necessary to issue the Licence, then the Licence will be issued by authority of Government Order.

During the monopoly period, MTOC will not be permitted to compete in new and value added services, including cellular, to allow it to concentrate its resources on upgrading the basic network and services. MTOC will, of course, still have an involvement in cellular and similar services through its delivery of calls from, and its origination of calls for, these services.

Expansion and rehabilitation may be carried out by MTOC or by other organisations. The work may be funded directly by MTAC or by private sector resources, including MTOC, through Build Transfer Operate (BTO), Build Operate Transfer (BOT), or any similar schemes. As soon as MTAC takes possession of any additional network assets or property, it will be capable of being leased to MTOC or other organisations issued with a basic licence. Furthermore, it will be a condition of the Licence, issued by the Ministry of Infrastructure Development to MTOC, that a rolling five year network development plan is prepared each year. The development plan shall take into account the Government's development objectives and the Mongolian Telecommunications Network Master Plan.<sup>2</sup>

The Government realises that considerable funding will be required to provide telecommunications services to the country's vast territory and widely dispersed population. It is, however, committed to exploring all possible means of funding. Moreover, the Government has stated in the Telecommunications Policy Statement that it is a matter of social policy that the possibility of express financial support from the Government should be considered for any unprofitable network expansion.

The Government will sell the shares in MTOC to a strategic foreign investor on terms and conditions set out in the Share Sale Agreement. Furthermore, in order to promote the business of MTOC to being conducted in a commercial manner, the Government and private sector interests, as the shareholders in MTOC, will enter into a Shareholders' Agreement to record their understanding about the ongoing operation of MTOC and their relationship as shareholders in MTOC. This Agreement will place day to day management of MTOC with the private sector, but it will require a consensus from both the Government and private shareholders for major decisions.

### Summary of Legal Documentation for the Privatisation Proposal

This section summarises the key legal documentation to implement the privatisation of MTC. Drafts of these documents will be provided to short-listed bidders during the due diligence process.

The key legal agreements are:

- (i) Lease Agreement between MTOC and MTAC for telecommunications network assets and property;
- (ii) Licence to be granted by the Ministry of Infrastructure Development in accordance with Government policy;

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<sup>2</sup> A Network Master Plan for Mongolian Telecommunications up to the year 2010 was developed in 1993, with the assistance of consultants funded by the Asian Development Bank.

- (iii) Share Sale Agreement between the Government and the Investor for shares in MTOC; and
- (iv) Shareholders' Agreement between the Government and the private sector shareholders in relation to MTOC.

In addition, as MTAC is not likely to undertake its own operations, it may wish to enter into a Management Contract with MTOC for the provision of certain services. The details of a Management Contract are not discussed in this Information Memorandum as it is a matter that can be resolved by the parties after the closing of the transaction.

The main provisions of each of the key agreements are discussed below.

#### *Lease Agreement between MTOC and MTAC*

As owner of MTC's network assets and property, MTAC will lease defined network assets and property to MTOC, in order for MTOC to conduct its business as the provider of local, national, and international telecommunication services in Mongolia. The Lease Agreement is likely to include the following provisions:

- (i) Term - MTAC will lease to MTOC the network assets and property of MTC for an initial term of twenty years with a right of renewal]. Should the provisions of the Lease Agreement prove to be unduly harsh or restrictive to MTOC's ability to conduct its business in a commercial manner, then MTOC will be able to seek modification of the Lease subject to defined parameters.
- (ii) Payment - MTOC will pay MTAC a lease payment for the use of the defined network assets and property for the term of the Lease Agreement. The lease payment will be reviewed at defined periods and when additional assets and property are added to the leased assets. In the long-term, the lease payment will be based on the economic value of the network assets and property. However, as these assets and property are not at present earning an economic return, the lease payment will be reduced in the short-term. The lease payment will, however, be set at a level to cover MTAC's financing and depreciation costs, and to allow expansion of MTAC's network in accordance with the Government's network development objectives.
- (iii) Ownership - the network assets and property shall at all times remain the sole property of MTAC and MTOC will only be authorised to use the network assets and property as provided for in the Lease Agreement. MTAC will assign its legal interests in any warranties, guarantees, or contracts of service in relation to network assets and property to MTOC.
- (iv) MTAC will give a list of standard warranties and undertakings covering such matters as the use of rent money to pay financial obligations owed to aid agencies and banks, compliance with loan conditions set by aid agencies and banks, and protection of MTOC in the event MTAC breaches any loan conditions.

- (v) MTOC will give a list of standard warranties and undertakings covering such matters as prompt payment of lease payment, responsible and careful use and installation of network assets and property, maintenance and insurance of network assets and property, agree not to sell or deal with any network assets or property, allow MTAC to inspect assets and property during business hours, and protection of MTAC in the event equipment or property is damaged, destroyed or lost.
- (vi) Expansion and rehabilitation will be carried out in accordance with detailed rolling development plans required by the Licence. MTOC will be responsible for installing new equipment and plant, the funding for which will come from MTAC and private sector resources, including MTOC, through Build Transfer Operate (BTO), Build Operate Transfer (BOT), or similar schemes. For any uneconomic network expansion, the Government will consider express financial support to MTOC.
- (vii) Termination of Lease - MTAC will be entitled to terminate the Lease Agreement on the occurrence of such events as a failure by MTOC to pay rent, a change in the ownership of MTOC without the consent of MTAC, the bankruptcy or liquidation of MTOC, or a major breach of the licence provisions.

#### *MTOC Licence*

MTOC will be authorised to provide specified telecommunications services in Mongolia. The terms and conditions of the Licence are likely to include:

- (i) Scope of the Licence - MTOC will be issued with a Licence that will confer upon it a near monopoly in the provision of basic network and services until 1998<sup>3</sup>, at which time the need for the monopoly will be reviewed. MTOC will not, however, be permitted to compete in new and value-added services, including cellular, until the monopoly is removed.
- (ii) Service quality and network performance targets - MTOC will be required to take all reasonable steps to achieve specified service quality and network performance targets. The Regulator will monitor MTOC's performance in meeting these targets.
- (iii) Network Expansion - MTOC and the Government, with the assistance of the Regulator, will each year develop a detailed rolling Network Development Plan covering the network expansion targets for the licensed system for the next five years.
- (iv) Numbering plans - MTOC will be required to prepare, and submit to the Regulator for approval, numbering plan(s) with respect to the licensed services and interconnect services.

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<sup>3</sup> As noted previously, MTOC may request that the monopoly be reviewed earlier.

- (v) Pricing arrangements - MTOC will be required to publish a list of its tariffs for each of the licensed services. Any changes to tariffs must be made in accordance with published policy guidelines and, as required, with the approval of the Regulator.
- (vi) Accounting - MTOC will be required to establish an accounting system that will easily provide the Regulator with detailed information on the costs of providing the licensed services.
- (vii) Interconnection arrangements - MTOC will be required to provide non-discriminatory interconnection between its network and other licensed systems and foreign telecommunications networks. MTOC will be able to price interconnection at a level to compensate it for the incremental costs incurred in delivering and originating the interconnection service functions. The interconnection agreement will need to be disclosed to the Regulator and will be required to have provisions on specified matters. In the event that MTOC can not negotiate a mutually satisfactory interconnection agreement with another network operator, the Regulator will set the terms of interconnection.
- (viii) Network interface standards - MTOC will be required to meet certain technical standards specified by the Regulator for the connection of other networks and Customer Premises Equipment to the licensed system.
- (ix) Prohibition of anti-competitive practices - the Licence will prohibit anti-competitive practices and abuses of dominant position by MTOC in relation to access to, and pricing of, services. These provisions and the monopoly provisions of the Law Prohibiting Unfair Competition will be administered by the Regulator.
- (x) Customer relations - MTOC will be required to establish, submit to the Regulator for approval, and publish, a Code of Practice which sets out the terms and conditions upon which it will provide services to its customers.
- (xi) Other provisions - this will include requirements to provide information to the Regulator, payment of a Licence fee, imposition of penalties and enforcement provisions, events upon which the Licence may be suspended or terminated, and procedures for reviewing or modifying the Licence.

*Share Sale Agreement between the Government and the Investor for shares in MTOC*

This Agreement will govern the sale by the Government to the Investor of shares in MTOC. The Share Sale Agreement is likely to include the following provisions:

- (i) The number of shares to be sold, the purchase price, and mode of payment.
- (ii) A list of standard representations and warranties to be given by the Government concerning such matters as share ownership, proper Government authorisation to privatise MTC, compliance with applicable laws and decrees, etc.

- (iii) A list of standard representations and warranties to be given by the Investor concerning such matters as due incorporation, proper approvals to enter the transaction, and availability of funds to complete the purchase of shares, etc.

*Shareholders' Agreement between the Government and Private Sector Interests in relation to MTOC*

The shareholders in MTOC, the Government of Mongolia and the private sector, will record their understanding about the ongoing operation of the company and the relationship of each other as shareholders in MTOC. The Shareholders' Agreement is likely to include the following provisions:

- (i) Scope and Exclusivity of Business - the Government will agree to grant the MTOC an exclusive licence, subject to the existing limited private networks (e.g., Mongolian Railway Company) until 1998 for the provision of basic telephone services, and the parties will agree to limit MTOC's activities to the provision of basic services while it has a monopoly. The scope of MTOC's activities will be defined in an annual Statement of Corporate Intent.
- (ii) Board and Management of the Company - the Government will agree to support the private shareholders in having day to day control of MTOC by supporting its nominees for directors. For certain detailed actions to be taken by MTOC, outside its normal course of business, at least one Government Director must vote in favour of the resolution for it to be past.
- (iii) Dividend Policy - the Government and the investor will agree to support any recommendations made by the Board of Directors with respect to the declaration of dividends.
- (iv) Transfer of Shares - neither party will offer its shares in MTOC, nor will the Government offer its shares in MTAC, for sale to an outside party without first offering them to the other party first, and the investor will agree to commit to its share-holding in MTOC for a long term period.
- (v) In addition to the Government and the shareholders interests making certain standard undertakings concerning their respective abilities to enter into this Shareholders' Agreement, the Government will undertake to maintain its commitment to certain policies and laws on competition, regulation, taxation and protection of foreign investments.

## MONGOLIAN TELECOMMUNICATIONS SECTOR POLICY STATEMENT

### I. Introduction

In connection with the fact that Mongolia is moving from a centrally-planned economy to a market economy relation, nation-wide reform in social and economic sphere is being made consistently.

The telecommunication sector has an important role in achieving the potentiality of economy which is a main source of country's development and increasing competitiveness in international market.

Requirements of improving the service quality, type of service and expanding service coverage by reform in telecommunication management, structure and technology for rapid development of other sectors of economy and fulfilment of increasing social-economic needs are emerging.

### II. Current Situation and Objectives for the Sector

The national integrated telecommunications network of Mongolia consists of 3,971 km of analogue microwave, 30,000 km of open-wire lines (each carrying from 3 to 12 channels) for communications between aimags and somons, and about 350 telephone exchanges with a total capacity of 97,000 lines, 41 per cent of which are digital.

International telecommunications services are handled through microwave and international telecommunications systems such as Intelsat, AsiaSat and InterSputnik.

As of the end of 1993, telephone density was 3,2 lines per 100 inhabitants and there were 69,200 lines in service.

Most of the equipment in the network uses analogue technology, and was manufactured during the 1960s and 1970s in former USSR. It has become obsolete and inadequate for providing comprehensive international and domestic services, and will not meet requirements during the transition to a market-oriented economy.



The country's current economic crisis has affected to telecommunications development and due mainly to a shortage of funds and spare parts, service volume has reduced.

Major reforms in the sector are required to improve the telecommunications network so as to support the country's transformation into a market economy.

A master plan for the development of Mongolian telecommunications up to year 2010 has been prepared in assistant with Asian Development Bank.

In order to implement the Master plan the following activities are to be taken, pursuant to the adoption of an effective policy on technology and investment:

- introduction of digital technology into the integrated telecommunication network;
- utilisation of satellite system for telephony, telegraphy and data communications;
- installation of new microwave systems in some aimags;
- use of fibre optic cables in urban and populated areas;
- introduction of mobile communications services.

The conversion of the network to digital technology will begin at the centre of the network (i.e., the Ulaanbaatar urban network) and gradually expand towards the largest population centres such as Darkhan, Erdenet and aimag centres through the installation of additional digital switching and transmission facilities.

IDD services will be made available by improving utilisation of installed capacity of the international and toll switches and of the international satellite communications services.

Information exchange services such as facsimile, mobile communications, telex and paging will be offered by various service providers and will promote the expansion of all kinds of business, commercial, financial and other activities.

With the development of data networks that meet international standards, and the use of satellite VSAT and DAMA technologies, where costs are independent of distance, a national data communications network will be created and technical arrangements will be made to interconnect with the international data communications network, providing its customers with the possibility of accessing many sources of information.

Considerable funding will be required to provide the country's vast territory and dispersed population with modern telecommunications services. But because of the great importance of solving social problems and improving the standard of living of all inhabitants, a feasibility study on the introduction of point-to-point wireless systems as well as cellular

telephony and paging systems to meet particular requirements will continue and all possible means of finding the necessary financial resources will be examined.

### **III. Organisational Structure and Sector Management Development**

The development of the sector's management and organisational structure, a prerequisite to core telecommunications development, are as follows:

1. The Government body responsible for preparing sector policies and establishing the legal framework necessary for their implementation will have the following main functions:
  - 1) prepare legislation, as required, for the rational development of the sector and control over its application;
  - 2) create the legal environment which will facilitate the introduction of fair competitive practices into the sector, including the creation of effective economic and financial incentives, and which will discourage discrimination based on type of ownership;
  - 3) evaluate and define the economic, financial, social and technical needs to be taken into account in the development of the sector and, on this basis, establish short and long term development plans, consistent with the country's socio-economic development policies;
  - 4) identify sources of financing (the Government, private sector, foreign sources) which might be made available for extending service coverage and establish a clear policy on the use of these resources;
  - 5) determine, in consultation with all concerned, the most effective use of funding (e.g., loans, grants) obtained from international financial institutions and donor countries for sector development projects, and ensure control over its utilisation;
  - 6) establish overall policies on the technologies to be introduced into or attached to the national network (general specification, signalling and numbering systems), and plan the utilisation of the radio-frequency spectrum, with a view to ensuring technical compatibility throughout the network;
  - 7) establish standards for the telecommunications network and services and determine performance indicators; and
  - 8) elaborate and implement human resource development programme.
2. In order to establish the legal environment necessary to ensure fair competition in the telecommunications marketplace, a regulatory body will be created which will carry out the following main functions:

- 1) establish the conditions and requirements governing the issuance of licenses for offering and providing domestic and/or international telecommunications services on a commercial basis; review these periodically in consultation with interested ministries, industry representatives, user associations and the public;
  - 2) review applications for new service offerings and for the renewal of licenses, through open public hearings pre-announced publicly well in advance; consider all evidence presented and opinions expressed and, on this basis, approve, or deny an application, as the case may be, determine the general conditions of the services offered and issue licenses;
  - 3) ensure that all operators follow service coverage and performance objectives established by the Ministry responsible, and take the steps necessary to correct any deviations;
  - 4) establish and implement the standards applicable to systems, equipment and services as well as related performance indicators, in consultation with the operators;
  - 5) establish equipment standards and type-approval requirements, and undertake appropriate test procedures, in-house or through a reputable laboratory facility, and issue approval certificates to be affixed to each specimen of a type of equipment having received such approval; review reported cases of usage of non-type-approved equipment and take appropriate action to terminate such activity, including proposing to the Judiciary the seizure of the delinquent's equipment if he refuses to comply;
  - 6) establish a methodology for determining tariffs or any charge for service, in a manner which balances out fairly the interests of the users, on the one hand, and the need of operators to achieve reasonable quality of service, service expansion capability and profitability, on the other;
  - 7) establish and enforce revenue-sharing agreements among operators connected to the basic network, taking into account the relative service costs of the various operators, as well as interconnection agreements between them; and
  - 8) review complaints from users and reported deviations from licensing conditions by operators; revoke licenses as considered necessary, including proposing to the Judiciary the seizure of the delinquent's assets if he refuses to comply.
3. One of the main policy objectives for the sector is the separation in the near future of the postal and broadcasting activities from telecommunications and the creation of new independent postal and broadcasting entities. This is a prerequisite to the implementation of the policy on the effective development of the sector in a market economy and the provision to customers of high quality and affordable services. To achieve this objective, the establishment of independent postal and broadcasting entities will have to be carefully planned and implemented on gradual basis.

#### IV. Sector Privatisation

Within the framework of the Government's overall privatisation, the direction to be adopted for the privatisation of the telecommunications sector shall take into account the particular characteristics of the entities concerned and, in particular, their technical, economic and financial capability to operate and develop independently.

1. The Government's policy on the privatisation of the MTC-dominant supplier of telecommunications services includes the following elements:
  - 1) MTC shall initially remain a predominantly state-owned company but will sell a certain portion of its equity to its employees and Mongolian citizens, and some of the equity to foreign investors through an open international bidding process;
  - 2) the Government will retain ownership and operation of the postal entity but will privatise the broadcasting entity; and
  - 3) the privatisation process in the telecommunications sector, and for MTC in particular, will be accompanied by an extensive network modernisation program to improve its reliability as well as its attractiveness to investors both local and foreign, thus facilitating its transformation and its participation in the market economy.
  
2. With the objective of placing both state-owned and privatised corporate entities on a firm commercial footing, a Stake-holders Board will be created for MTC. The main features of its Stake-holders Board shall be the following:
  - 1) the Board shall include representatives of the owners of MTC<sup>1</sup> and those of loan lending institutions and, at the discretion of the Board invited members from the government, business and academic communities known for their individual business experience. The Director General of the MTC shall also be a member of the Board;
  - 2) the Board shall be responsible for establishing the company's overall policies, long term strategy and business orientation. It shall periodically evaluate the company's performance and decide on corrective action as may be required. Specifically, it shall establish the objectives of the company's activities and develop its corporate plan. In so doing, the Board shall take into account the Government's policies, plans and objectives for the sector as well as of ownership
  - 3) representatives of the actual stake-holders shall have powers of decision proportional to their financial stake in the company; invited members will not;

<sup>1</sup> Initially, the Government will be an owner of MTC. After privatisation it will own up to 51 per cent of MTC share

- 4) the Director General of the MTC shall be responsible for carrying out the Board's operational and administrative decisions.

## V. Introducing Competition

1. Competition shall not be permitted in the basic telecommunications network<sup>2</sup> and in the provision of basic services<sup>3</sup> until the end of 1998, except under V.2. below. This monopoly shall be reviewed in 1998.
2. In areas that are not served, or not well served by the MTC, prospective service providers may be permitted by the regulatory body to provide basic services, subject to the prospective operator convincing the regulatory body that it technically and financially capable of serving the target area as well as MTC could, that it is subject also to the negotiation of satisfactory interconnection and revenue sharing agreements with MTC;
3. Competition by new service providers shall be promoted in new and value-added services (mobile communications, paging and personal communication etc.) beginning in 1994 and authorised through licenses issued to entities demonstrating appropriate technical and financial capabilities. During its 1994-1998 monopoly on basic services, MTC shall not compete in these areas, but will concentrate in its resources on up-grading the basic network and services. It may be permitted to do so if, as a result of the 1998 review, it is decided to permit competition in the provision of basic services. Alternatively, the MTC may request that its monopoly position be reviewed prior to 1998 if its network and service modernisation program has exceeded expectations; a positive outcome of such a review would justify the elimination of all the aforementioned entry restrictions, both for MTC as well as for the other operators.
4. Competition in manufacturing and the installation of telecommunications equipment and networking facilities, for use either by operating entities or by subscribers will be introduced in 1994.

## VI. Sector Legislation

The redrafting of the Telecommunications Act will be finalised and submitted to Parliament within 1994. This Act shall regulate following issues raised from the implementation of the sector policy statement:

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2 The basic telecommunications network include domestic, international and inter-exchange transmission and switching facilities of what is often referred to as the public switches network, including lines to subscriber premises and to interconnection points with other operators and private networks

3 Basic services include domestic and international telephony, facsimile and telex, but do not include new and value-added services such as cellular radio and paging system, personal communication systems(PCS), customer premises equipment(CPE), PABX, private networks (e.g., LANs)

1. The sector's structure and management, principles of investment, financing and economic relationships, regulations and land acquisition etc.;
2. Privatisation and introducing competition in the sector;
3. Role and functions of the policy making and regulatory bodies, rights and duties of operators and customers and relationship between them;
4. Roles and relationships of the policy making and regulatory bodies and of the operating and manufacturing industries in areas of common concern, such as:
  - 1) long term facilities and network planning;
  - 2) technical standards, domestic and international (e.g., ITU, ISO, Intelsat, etc.);
  - 3) the management use of the radio-frequency spectrum;
  - 4) the co-ordination of Mongolian participation in international forums (e.g., ITU);
  - 5) the negotiation of international agreements on telecommunications traffic and services.

## **VII. The Mobilisation of Financial Resources**

With a view to providing the financial resources needed for sector expansion and rehabilitation, investment and financing policies and plans for the sector need to be established.

1. MTC must strive to become financially self-sufficient through setting its pricing strategy, and eventually be able to recover its capital investment and operational costs. This objective will be greatly facilitated when it will have been divested of its current postal and broadcasting operations and the financial burdens attached thereto, as well as through some form of partnership or joint venture with a foreign telecommunications entity; the latter should also assist greatly in overcoming any current limitations in available personnel resources.
2. New charging methods, such as the introduction of timed local calls shall be implemented from the 1st of January, 1995;
3. The Government should consider, as a matter of social policy, the possibility of providing the financial support necessary to introduce service in un-served and unprofitable areas.

## VIII. Human Resources

To ensure the effective development and operation of the sector, it is essential that qualified personnel (technical, financial, accounting) be recruited, developed and retained. To this end, a human resource development master plan will be prepared and given top priority.

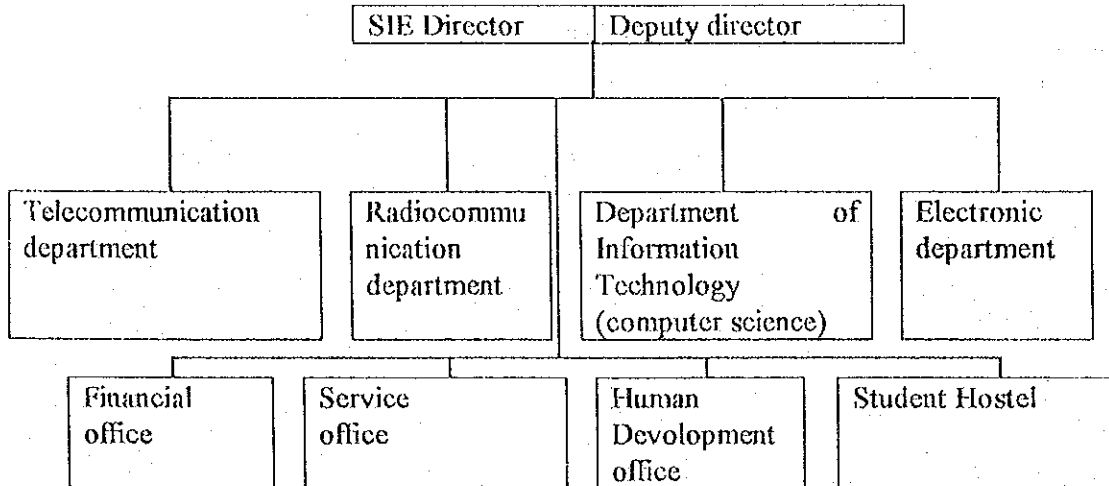
Training in foreign languages, particularly in English, should receive immediate attention, and suitable instruction made available as soon as possible.

Ulaanbaatar

1994

Brief information of the School of  
Information Engineering  
(or Telecommunication Institute - old name )

1. Disposition of the school of Information Engineering (SIE) - in the eastern part of the Ulaanbaatar or 4 km from the center of Ulaanbaatar city in the fifth part of the Bayanzurekh District. There are 4 departments, 500 students, professor - teachers staff 60. Three consultant teachers are working from JICA (Japan )
2. The structure of the SIE:



3. Training Contents

The SIE prepares the professional workers (operators), technicians, diplomic engineers and bachelors on four specialties. The ten year secondary school graduates are received into SIE through the competitive examination. The first two years they all together study general fundmental courses as mathematics, physics, foreign languages, drawing, and general profesional courses like electric circuit theory, electronic circuit theory, electron devices, electron circuit theory and so on.

The rating is calculated for each second grade student after two years study. They are divided into two groups depending on rating. High rating students will continue a study for bachelor-engineer and low rating students will continue a study for diplomic engineer. Beside the abovementioned activities the SIE raises qualification of engineers, workers and other staff of MTC.

4. Course number.

Duration of diplomic engineers study is three years. And duration of bachelor engineers is half and four years.

5. Training forms

SIE conducts training of following forms:

- \* training professional workers
- \* traning of diplomic and bachellor engineers
- \* training of masters
- \* raising of qualification of engineers MTC and other organizations

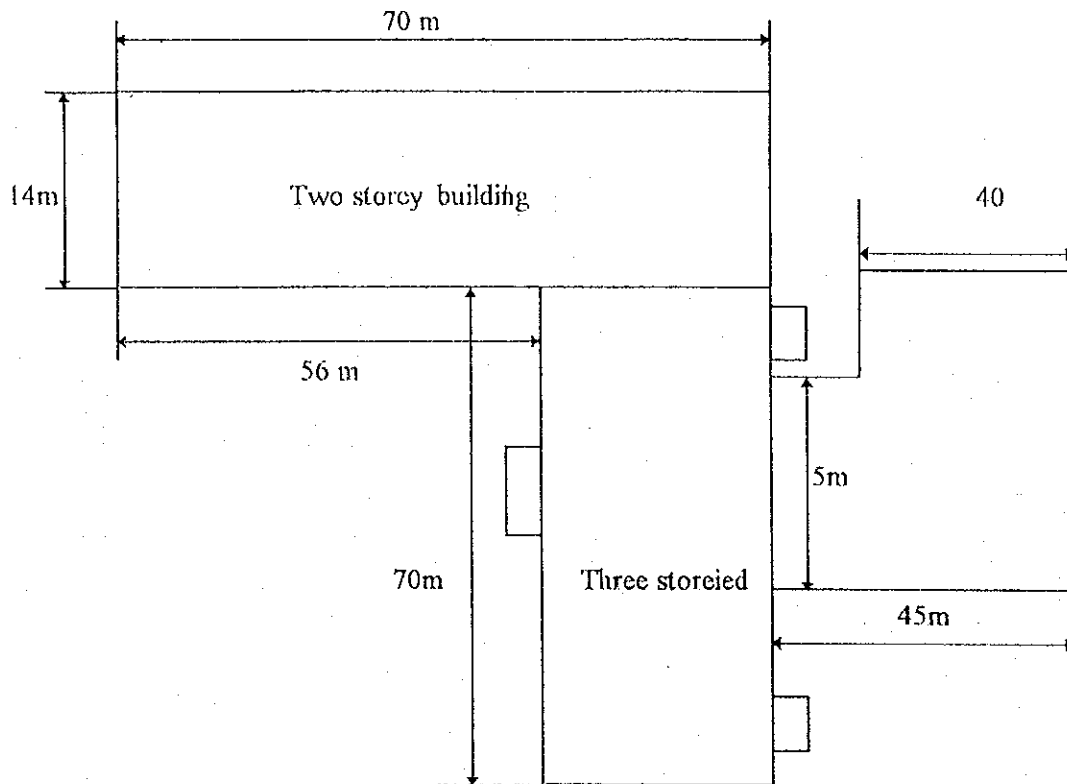
Trainings of alovementioned forms are conducted day time and evening time

6. The Financing



The SIE is a Government owned school. The financing of SIE is partially provided from state budget and the rest of financing is covered by the students payments.

\* Building sizes:



- \* Office room 11
- \* Training room 15
- \* Lab's 29
- \* Service room 17

#### 7. 1994 year activities

The activities had conducted for training of 500 students four masters and let outed 70 graduates on diplomic and bachelor engineers, and raising of qualification of Mongolian Telecommunication engineers and other staff.









JICA

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