

以上番組制作センター建設候補地4ヶ所の踏査を実施した結果、(1)のChhauni 地区の候補地が適当であろうと考えられるが本格調査段階で更に詳細に検討する必要がある。

3-5-2 送信所建設予定地

現在実施している実験放送は、カトマンドウ市内の Singha Durbar という政府官庁ビルディングの屋上に仮送信アンテナを設置し放送を行っている。

送信出力も100W、アンテナ利得も約3dBということで、僅かカトマンドウ市の中心部のみに対するサービスに限定されている。

従って、NTVは早急に送信所を適当な場所に移したいとして、候補地の物色を行っていた結果、カトマンドウ市を取り囲む山系の中の一つ Mt. Phulchowki が適地であるとして既にNTVはここを送信所建設予定地として決定している。

現在、Mt. Phulchowkiにはテレコムマイクロ中継所が設置されており、アクセスロードも完備し、機材運搬に関しても問題がないものと考えられる。

Mt. Phulchowkiの予定地はカトマンドウ市の南東に位置し、標高約2,500mで、ここからはカトマンドウ盆地がほぼカバーできるばかりではなく、南部のテライ地域に対するサービスの中継地点としても適当な場所であると考えられる。

送信機設置場所はテレコム局舎の一部の利用、アンテナも既設鉄塔の利用が可能であると思われる。

3-5-3 外国テレビ電波の到来状況

ネパール王国は、既述のように、8千メートル級のヒマラヤ山系の南斜面に東西に細長く広がる国土を持つが、南部のテライ地方は海拔150メートルと低い地勢となっている。このテライ地方はインドと国境を接しているために、インド国営テレビ放送の電波が鮮明に受信できる。また、インド国境から約100キロメートル離れた首都カトマンドウに於いても高利得アンテナとブースタの使用によって、インドのテレビ放送がかなり鮮明に受信できている。

カトマンドウ市内で視聴できるのはCH-10でCH-8、CH-6は非常に微弱である。

カトマンドウ盆地に到来しているインドのテレビ電波は直接波ではなく回折伝播によるものである。

首都カトマンドウに到来しているテレビ電波のインド側発信地点(送信所)は、カトマン

ドウを起点として、その距離と方位はほぼ次の通りと考えられる。(地図による確認)

(送信所)	(距離)	(方位)	(チャンネル)
Siliguri	325 km	108 度	8
Muzaffarpur	175 km	177 度	6
Patna	240 km	180 度	10
Gorokhpur	220 km	241 度	9
Lucknow	430 km	258 度	4

参考として、第4図にインド国営放送の置局地図を示した。

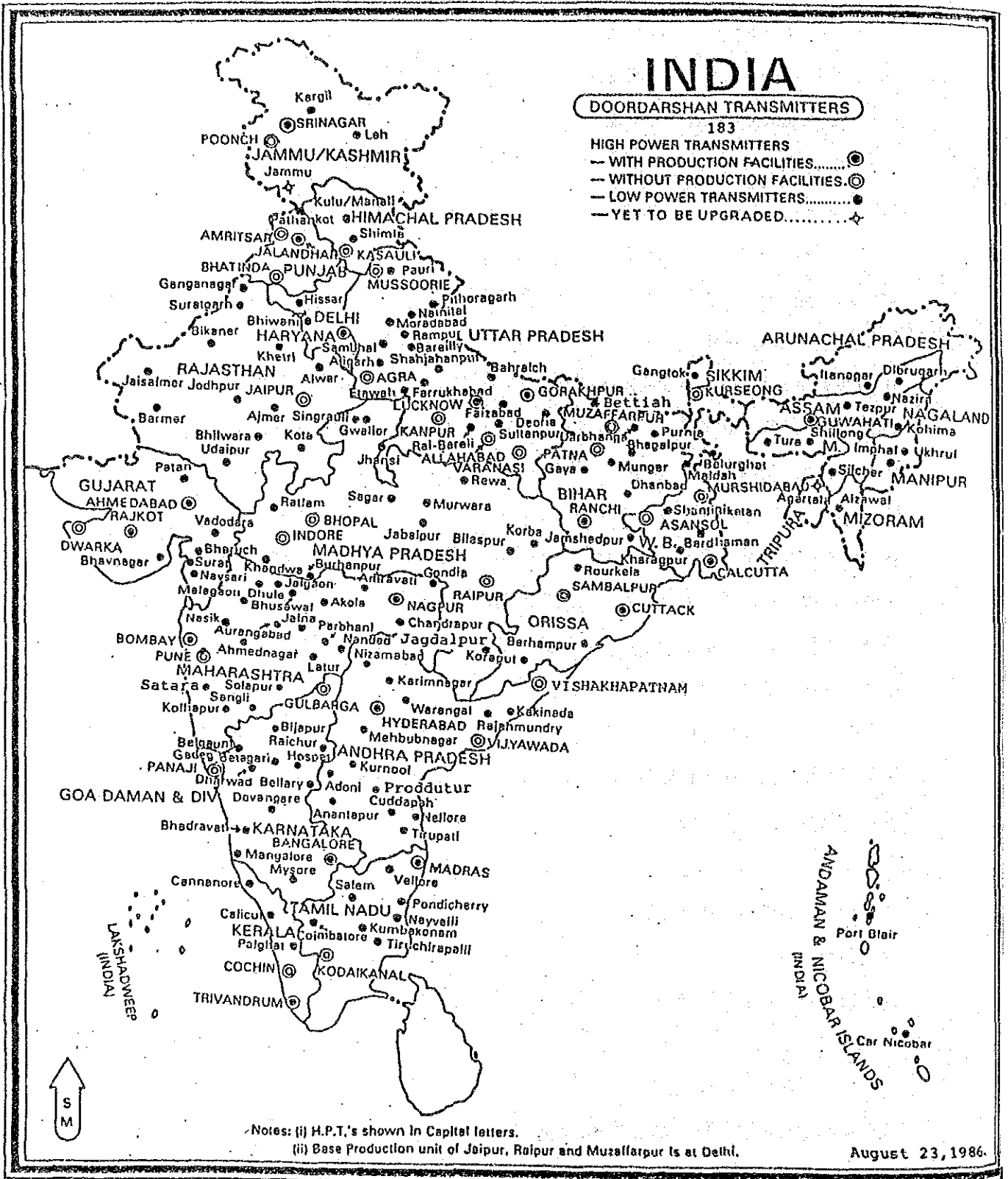
Mt. Phulchowki山頂での受信試験の結果は、受像機付属のホイップアンテナで、CH-10、CH-8、CH-6の電波が鮮明に受信できた。この他に、CH-12の電波が微弱ではあるがキャッチできた。勿論NTVのCH-4は鮮明に受信できた。

従って、今後NTVで使用可能なチャンネルは奇数チャンネルのみである。

しかし、これら奇数チャンネルも全て隣接混信が懸念される。いずれにしても、南部テライ地域の視聴者に対しては、電波の到来方向がインドのテレビ電波と逆方向になるので隣接混信は救えるのではないかと考えられるが、本格調査時において、十分に検討が行われなければならない事項である。

今後、ネパールの全国テレビジョン放送網建設にあたって、インド国営テレビの電波はNTVの放送網整備・拡充計画、特にチャンネル割当に大きな影響を及ぼす問題であると考えられる。

第4図 インド国営テレビ放送局置局地図



第4章 本格調査実施上の指針

4-1. 実施にかかわる基本方針

本格調査の実施に際して、ネパール王国の第七次国家開発5ヶ年計画の中での全国テレビジョン放送網建設計画の位置付けを更に明確にして行くと共に、テレビ放送の社会的貢献度が如何に大きいかを常に念頭に置いて調査を進める必要がある。

テレビ放送番組のネパール王国住民にもたらす効用は、単に財務・経済的評価測定では計り知れないくらい大きなものがある。即ち、情報伝達の迅速化、特に識字率の低い一般住民への効果的情報伝達、識字教育や保健・衛生知識の普及等、一般国民の教育水準向上への貢献などネパール王国の現状に照らして社会的効果を充分検討した計画の策定が必要であると考える。

現在、NTVは貧弱な仮施設をNTVなりに効果的に利用したテレビ放送を実施している。今回の計画はこの実験放送の延長線上で彼等の努力を評価する形で進めなければならない。即ち、ネパールの労働慣行、社会慣行等を踏まえると共にNTV側の計画（将来の組織、建物のレイアウト、スタジオの数、運用形態等）の是非の検討を含めた充分な調査を行い、現地放送事業従事者の技術水準に対して過度な負担を与えないような、またネパールの現状に照らして過度な施設とならないように充分検討を加えて行くべきである。

このために、ネパール側と突っ込んだ意見交換と我々の永い経験に基づく指導が必要であると考える。

4-2. 調査団の派遣

本件調査は、小規模ながらテレビ番組制作センターと、ネパールに於ける初めての全国テレビジョン放送網の設計に関するものであるから、それぞれに深い専門知識と豊富な経験を有する専門家を当てる必要がある。

本格調査団は、番組制作センターの概念設計を含むことから、建築施設関係コンサルタントも含めて実施することが望ましい。

特に、テレビ番組制作センター設計に当たっては Man-Machine系のインターフェースと現地の社会制度、労働慣行等を充分考慮しながら調査を進める必要がある。

その意味で、調査団のネパール王国における調査は現地NTVのカウンタパートと充分な討議を重ねながら、両者共同で報告書の骨子を現地滞在中に固めることが望ましい。

4-3. 研修員の受入

NTVは事前調査団に対して、日本における分析作業段階でNTVのカウンタパートをこれに参加させ、調査作業を通じて本格調査団から技術移転を受けたいという強い要望があった。正式にはNTVより外務省を通して別途要請がなされると思うが、NTVとの協議を通して把握した先方の希望は次の通りである。

時 期：	中間報告書作成中	
期 間：	約1ヶ月間	
分野と人数：	スタジオシステム設計	1 名
	放送網計画	1 名
	放送局運営	1 名
合 計		3 名

本件調査はNTVにとって本格的テレビジョン放送網建設計画調査の初めての経験であるし、今後長期にわたってテレビジョン放送網建設計画を達成して行かなければならない環境にあることに鑑み、この際出来得る限り多くの研修員を受入れ、将来のNTVを担う人材を育成することも重要な技術協力の一つであると考えられる。

4-4. 調査実施方法

1. 事前準備

(1) データ収集、分析および調査手順の検討

本件の調査範囲は、カトマンドウのテレビ番組制作センターと全国テレビジョン放送網建設計画に係わる広範囲にわたる調査であるが、ネパール王国の地理的条件、交通網の未整備等の現地環境から全国踏査は不可能な状況にある。従って、主要地域以外はマップサーベイにならざるを得ないであろう。このような条件の下での調査は事前の準備如何が調査の質を左右する大きな要素となる。従って、日本国内で入手可能な資料は早期に収集し、事前に分析作業等を進めておくことが賢明な方法であろう。

また、NTVも調査団の必要とする資料の提供に積極的な姿勢を示しており、事前調査団が提出した質問状の回答は出来得る限り早く用意し、在ネパールJICA事務所経由で届けら

れることになっているので、これらの回答の分析・検討と、今後の現地調査に必要な項目の洗い出しを行い、調査内容、調査手順等、具体的にまとめておくことが望ましい。

(2) 調査用機材の準備

現在、NTVは調査機材は勿論のこと、測定器類の保有は皆無である。

従って、本格調査時、調査用機材をNTVから借用することは不可能である。

本格調査のために準備する機材について、NTVは調査終了後の無償供与と、後でNTVの日常運用に供し得るものを希望している。

調査をスムーズに実施すること、NTVの希望を満たすことも考慮すると、次に示す機材を準備することが望ましい。

(a) 潜在電界測定用機材

スペクトラム アナライザー	1 式
電界強度測定器	1 式
アンテナ等付属品	1 式

(b) 電波伝播試験用機材

VHF試験電波発射装置 (CH-7)	1 式
番組伝送試験電波発射装置 (7GHz)	1 式
アンテナ等付属品	1 式

(c) 試験信号発生器

テレビ信号発生器	1 式
音声信号発生器	1 式
携帯用音声ミキサー	1 式
カセットテープ録音/再生機	1 式
マイク、ケーブル等付属品	1 式

(d) モニター用および連絡用機材

音声モニターアンプ・スピーカー	2 式
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映像モニター受像機	5 式
UHF 連絡無線装置 (アマ無線用)	5 式
VHF 連絡無線装置 (アマ無線用)	5 式
アンテナ、電源等付属品	1 式
(e) <u>そ の 他</u>	
複 写 機	2 台
携帯用発電機 (300 VA)	2 台

これらの機材は、現在、測定器の不足に悩んでいるNTVにとって放送局運営上大きく寄与するであろう。

2. 現 地 調 査

(1) 現地調査の範囲

現地調査はNTV作成のプロジェクトプロポーザルに示されているプロジェクトの第1期、第2期を中心にしつつポカラを加えた地域の踏査を実施し、その他の地域はマップサーベイで行う。

ポカラに置局する場合、初期段階においてはカトマンドウからポカラまでのマイクロ回線による伝送は考えず収録テープ輸送方式を採用することも考慮することも必要であろう。

(2) データ収集と討議

現地調査は、事前に準備した調査手順に基づき、能率的に必要な調査を実施すると共に、ネパール側カウンタパートとの討議を通じ相手側の考えを的確に把握し、検討・分析を加えた上ネパール王国の実情に合った計画を提案することが肝要であろう。

調査に必要な公式書類等の殆どがネパール文字であるので、持ち帰っての翻訳、検討は非常に困難を伴うので、出来得る限り現地で先方関係者との質疑応答の中で消化しながら、必要なデータや情報等の収集をするよう心掛けるべきであろう。

(3) 潜在電界の測定

前章で既に述べたように、周辺国、特にインドから到来するテレビ電波が多いので測定

には時間がかかるし、また日本のように朝から深夜までテレビ放送を行っているわけではないので、インド各テレビ局の放送時間を充分調査した上で事前に測定場所別に測定可能時刻表を準備して実施することが効率的測定作業の要点となるであろう。

(4) 伝 播 試 験

ネパール王国は地勢的にみると、電波伝播の問題がある。また周辺国はVHFチャンネルをフルに使用している関係上、UHF帯の使用も考慮しなければならない地区も出現するものと思われる。

このような理由により、VHFとUHF帯の両方の伝播試験が必要であると考えられる。伝播試験に際して、山が多い関係上、反射波妨害の発生が考えられるので唯単に電界強度の測定のみに止めず、映像・音声モニターによる電波の質的環境についても充分チェックする配慮を欠いてはならない。

更に、スタジオと送信所（含中継局）間の番組伝送路設定およびスタジオ外番組中継回線計画策定のためのマイクロ波伝播試験も本件調査の重要な1項目である。

3. 国 内 作 業

現地調査で収集した資料、討議結果等の詳細なデータの解析作業と総合的分析作業に基づき、適切な計画を策定し、それを報告書にまとめる。

4-5. 調査にかかわる提言と実施上の問題点

事前調査団は、ネパール王国の「全国テレビジョン放送網開発計画」構想に関して、時間の許す限り多角的な調査を実施した。その結果、NTVは現在の仮施設による一日3時間のテレビ放送に全エネルギーを注ぎ込んでいる状況にあり、全国テレビジョン放送網開発計画の具体的推進に係わる計画策定に対しては、実務知識と経験不足から彼等自身でこれに取り組むことは非常に困難な状況に置かれている。しかし、ネパール王国政府は国家開発促進策として本件計画の早期具体化を強く望んでいることから、本格調査を通じて彼等への知識の授与、効果的実践方法の具体的指導等を行い、将来への飛躍をサポートする必要がある。

彼等への技術移転は、今後のNTVの発展に大きく寄与するであろう。

以上の他、本格調査に際して特に留意すべき幾つかの重要事項を述べておく。

1. 今後のネパール王国の経済・社会等の発展動向をしっかりと把握し、的確な分析に基づく合理的、かつネパール王国において実現性の高い計画にまとめ上げるよう留意する必要がある。

2. ネパール王国政府は、テレビ放送がネパール国民の教育に大きな貢献をもたらすことを期待していることから、通常教育と放送教育の効果的連携とその方法の具体的施策についても充分指導することが望まれる。

そのため、教育を所轄する省庁等関連省庁との充分な協議を行うとともに彼等の意向を充分聴取し、適切な連携の方法についても提案する必要がある。

3. カトマンドウの番組制作センター建設計画について、現在の仮放送施設で使用中のどの機器が移設可能か、どのように利用出来るか、等々に関しても充分な検討を行い、既設機器の有効利用を図る計画とすることを念頭に置いて調査する必要がある。

4. 未だ技術的経験不足のNTV職員が運用上混乱を起こさないようなシンプルなシステム、扱い易い機器の導入を考慮すること、また、施設規模についてはあまり理想に走らないようネパールの実態に照らし、適正規模について充分な考慮を払い過大な施設を提案することのないよう配慮する必要がある。

5. テレビジョン放送の標準方式の提案にあたっては、近隣諸国との外交関係、社会的関係、外国との文化交流のための番組交換等の諸条件を充分検討し、かつネパール王国政府の意向を充分反映させるようネパール王国政府関係者との充分な討議を経た後決定されなければならない。

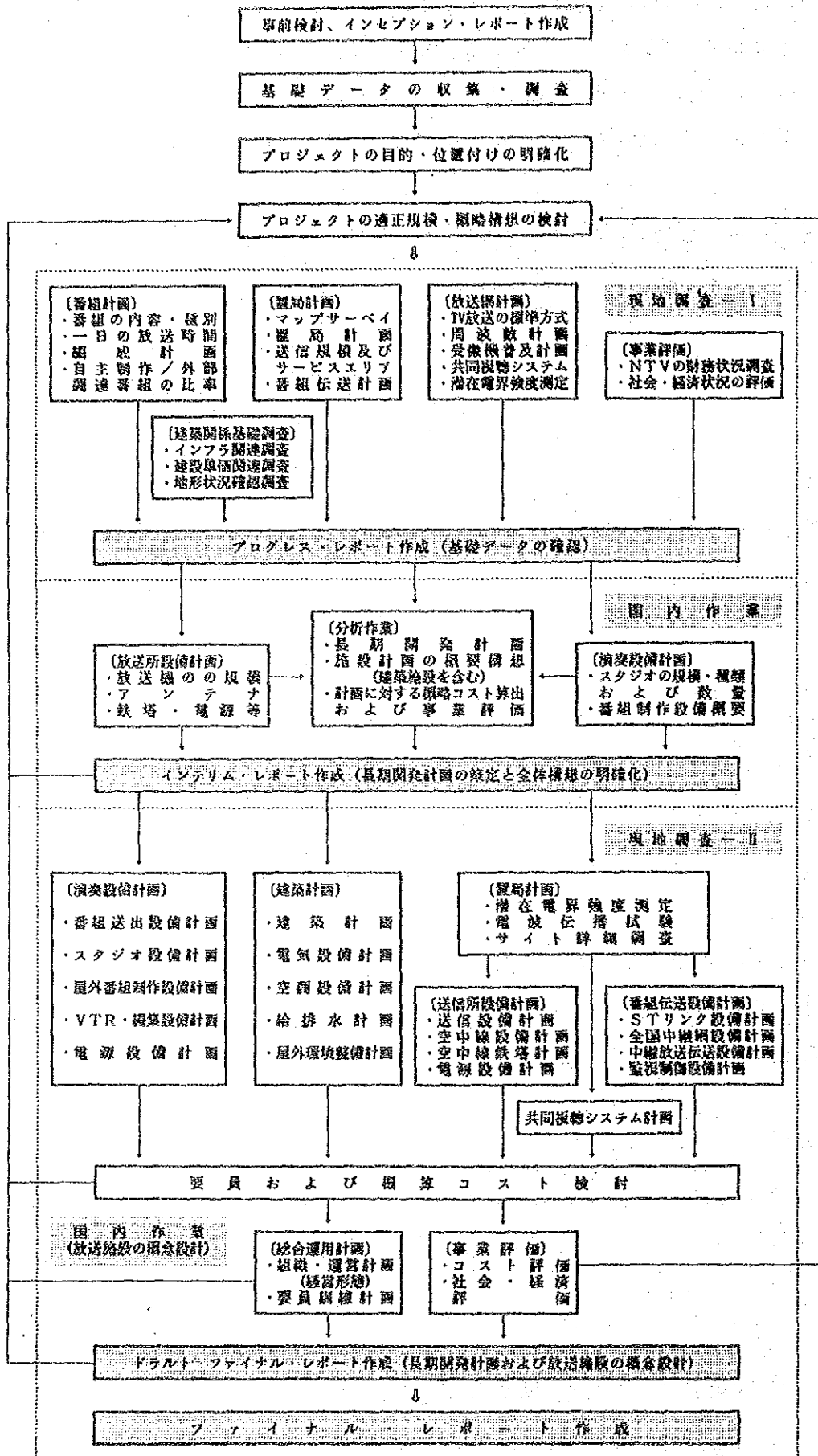
6. テレビ受像機を購入出来ない低所得者層にも大いにテレビ放送の恩恵が与えられるような共同視聴システムを提案する必要があることを念頭において計画策定に当たる必要がある。

7. NTVは全国テレビジョン放送網拡充に伴い、広告放送料収入の増加を見込んでいる

が、実際にその可能性についての詳細な分析検討が必要であろう。本件プロジェクトはネパール王国にとって重要であることに疑問を差し挟む余地は無いものであるが、運営費の確保について具体的な考察が必要であろう。その結果によっては、政府直属の国営事業或いはラジオ放送事業との統合等についても提案して行く必要がある。

8. 参考として、本件調査業務の実施（案）をフローチャートにまとめて次頁に示した。

調査業務の実施（案）



添付資料

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添付資料一 1 TERMS OF REFERENCE FOR THE STUDY ON THE ESTABLISHMENT OF
TELEVISION NETWORK IN THE KINGDOM OF NEPAL

TERMS OF REFERENCE
FOR
THE STUDY
ON
THE ESTABLISHMENT OF TELEVISION NETWORK
IN
THE KINGDOM OF NEPAL

1. INTRODUCTION:

The Government of the Kingdom of Nepal has a plan for the establishment of television network. With a view of attaining consolidated developmental efforts of the country His Majesty's Government brought out National Communication Plan in 1971. Communication for Development was the central theme of this plan. The plan has laid down the importance of the roles of different media in mobilizing the people in attaining the goal of National Development.

The communication plan has mainly laid down the following communication objectives of His Majesty's Government.

1. To avail the active participation of general public in the developmental activities.
2. To strengthen the National Unity of the Kingdom.
3. To improve the standard of education of general public.
4. To educate children of different levels i.e., kindergarten, primary school, lower secondary school and high school vis-a-vis training of teacher.

2. BACKGROUND

1. Nepal, a sovereign Hindu Kingdom, lies on the lap of the highest mountain ranges of the Himalayas. Roughly rectangular in shape, the country is located between 26° 22' north latitude and 80° 4' to 88° 12' east longitude. Nepal covers an area of 54,718 sq. miles. About one sixth of the total land area is under cultivation and the rest is covered by high mountains, snow and forests.

2. For harmonious and systematic developmental efforts and administrative links the country is divided in five development regions, fourteen zones and seventy five districts.
3. The population of the country is rising at more than two percent annually. The population in 1981 was about 15 million and the projected population in 1986 July is that of 17.13 million in the total household of 2,585,000.
4. The present literacy rate of the country is low comparing to several other developing countries. The percentage of literate population is about 30 percent.
5. With the aim of promoting education and culture among the people of the Kingdom of Nepal, His Majesty's Government has concluded that utilization of the broadcasting media would be most effective. In 1981, the radio broadcasting network was improved with grant-in-aid provided by the Japanese Government. This project has certainly been contributing to the better quality of the national education and communication of people. However, the visual medium such as television broadcasting is the most suitable and effective for educational purposes under the situation of the low literate population as Kingdom of Nepal. Education by means of television medium can result in significant savings in time and education cost is also cheaper than conventional method of education using school facilities.
6. In 1985, Nepal Television (NTV) had established an experimental TV broadcasting station with low quality equipment and inaugurated officially on 29 of December, 1985 for the purpose of training of required personnel for operational television broadcasting. All facilities operated now has been rented from World View International Foundation (WIF). The NTV established community viewing centres (CVC) right from the beginning of its test TV broadcasting. Initially NTV had established 12 CVCs in the urban areas of the valley started with the broadcast of His Majesty the King's visit to Australia last September. The operation of CVCs has been continuing after the visit also during the broadcasting service time of NTV and about 500 viewers per day has been watching TV at each CVC. 25 CVCs were established mainly in the rural areas of Kathmandu valley on March 1986 on an experimental basis. The numbers of people visiting these centres varied from 100 to 1,000 per centre per day with an average of about 10,000 people visiting CVCs daily. Most of the times in several centres, it was found that people used to come from as far as 4-5 km. The people from the villages where no TV receives are available, visit to NTV frequently and they are requesting for establishing CVC in

their village. Therefore, NTV plans to establish the number of CVCs for the village in this project.

7. As above mentioned, the establishment of Television Network has been expected by people of Kingdom of Nepal. A proposal to effect this strategy has been drawn up by His Majesty's Government and is attached hereto.
8. His Majesty's Government hopes that the excellent consultant to be provided by the Government of Japan will review the Project Proposal and if necessary, suggest alternative proposals for the realisation of the objective as mentioned below.

3. OBJECTIVE OF THE STUDY

The objective of the Study is to draw up plan for establishment of TV broadcasting network which shall promote education and also contribute to National Development and raise the standard of living of the people in the country.

4. STUDY ITEMS

Major items of the Study are as follow;

1. to review the Project Plan which was already prepared by the NTV.
2. to make alternative Project Proposal and the following details items shall be included.
 - a. System design for TV Program Production facilities and Transmission Network.
 - b. Broadcasting and Program Production Plan.
 - c. Site planning of the transmitting station.
 - d. Channel plan and transmission power requirement.
 - e. Hardware requirement for the program production and TV network.
 - f. System design of school level TV receiving and viewing system.
 - g. System design of community level TV receiving and viewing system in the villages.
 - h. Management Plan including manpower.

- i. Cost estimation of construction and operation.
 - j. Project implementation schedule.
3. Field survey to get data and information for the preparation of suitable project plan.

5. OUTLINE OF THE PROJECT

Detailed contents of the Project are mentioned in the document which named "PROJECT PROPOSAL FOR THE ESTABLISHMENT OF TELEVISION NETWORK IN THE KINGDOM OF NEPAL FOR EDUCATIONAL BROADCASTING", attached herewith.

1. The Project will be divided in four phases as follows;

a. First phase:

1. Establishment of Program Production Centre with three (3) studios at Kathmandu city.
2. Establishment of transmitting station, which cover Kathmandu valley only.
3. Establishment of suitable and effecient Studio Transmitting Link (STL).
4. Establishment of CVCs in the rural areas of Kathmandu Valley.

b. Second Phase:

1. A powerful transmitter at Phulchowki and one or two repeater stations in the eastern part of the country will be established.
2. Numbers of CVCs will be established in villages around the transmitting and repeating stations.

c. Third Phase:

1. About six (6) repeater stations will be established to cover the west and south west part of the country.
2. Number of CVCs will be established in villages around the repeater stations.

d. Fourth Phase:

1. About ten (10) repeater stations is estimated for this phase. The eastern hills and western hills fall under this phase plan, however, exact number cannot be forecasted at this moment because of the difficult topographical situation of the places.
2. Number of CVCs will be established in villages around the repeater stations.

6. EXPECTED STUDY PERIOD

It is expected that the technical assistance for the study of this project should be made at the earliest possible time during 1986.

7. TRAINING FOR THE PROJECT PLANNING

It is required that NTV's counterpart personnels will be given an opportunity for training in the courses of Study in Nepal and Japan.

8. EXECUTIVE BODY OF THE STUDY

Nepal Television, Ministry of Communication, Kingdom of Nepal.

添付資料一 2 SCOPE OF WORK

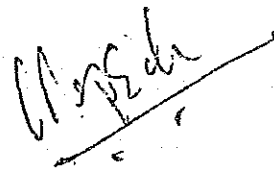
SCOPE OF WORK FOR THE STUDY ON
THE DEVELOPMENT PLAN OF TELEVISION NETWORK
IN
THE KINGDOM OF NEPAL

AGREED UPON BETWEEN
NEPAL TELEVISION CORPORATION
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Signed in Kathmandu on 18th February, 1987

田中征岩

SEIJI TANAKA
Leader of
Preliminary Study Team
on behalf of
Japan International
Cooperation Agency



NEER BIKRAM SHAH
Chairman & General Manager
Nepal Television Corporation
on behalf of
His Majesty's Government of Nepal

I. INTRODUCTION

In response to the request of His Majesty's Government of Nepal, the Government of Japan has decided to implement the study on the development plan of the television network in the Kingdom of Nepal (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 Nepal Television Corporation (hereinafter referred to as "NTV") and the authorities concerned of His Majesty's Government of Nepal.

The present document sets forth the Scope of work with regard to the study.

II. OBJECTIVE OF THE STUDY

The objective of the Study are to draw up a development plan for the nationwide television broadcasting network.

III. SCOPE OF THE STUDY

1. Study area

The Study covers whole Nepal.

2. Contents of the Study

The Study will consist of field surveys and data collection in the Kingdom of Nepal (hereinafter

referred to as "Nepal") and analysis works in both Nepal and Japan.

2.1 Collection of data and information including review of project proposal prepared by NTV.

- (1) social and economical statistics
- (2) national development plans
- (3) present situations and future plans of other social infrastructures related to broadcasting such as telecommunication
- (4) relevant laws and regulations for television broadcasting
- (5) relevant technical standards for television broadcasting
- (6) statistics of financial status of NTV
- (7) existing status of television broadcasting facilities including television receivers
- (8) existing development plans and ongoing projects in relation to television broadcasting
- (9) existing status of operation and management of television broadcasting
- (10) construction condition in Nepal
- (11) other related matters

2.2 Survey of the site

- (1) survey for television broadcasting network upon maps
- (2) measuring for electric field intensities of television signals from other country and radio propagation test in selected areas

- (3) topographic condition and infrastructure in the selected sites

2.3 Formulation of television network development plan

- (1) Long-term development plan of nationwide television network
 - a. programme production plan
 - b. site planning of the programme production center, the transmission stations and the repeater stations
 - c. transmission power requirement and channel plan
 - d. service area
 - e. major technical standards including selection of television system
 - f. organization and operation plan
 - g. personnel training plan
 - h. extension plan of television receivers
 - i. implementation plan
- (2) Conceptual design for broadcasting facilities
 - a. programme production facilities
 - b. transmitting station and repeater station facilities
 - c. programme transmission network facilities
 - d. community level and school level television receiving and viewing system
 - e. other related facilities
- (3) Project Evaluation
 - a. cost estimation
 - b. socio-economic analysis

IV. STUDY SCHEDULE

The study shall be undertaken in accordance with the attached tentative schedule. (refer to the Annex)

V. REPORTS

JICA shall prepare and submit the following reports in English to His Majesty's Government of Nepal.

1. Inception Report ----- 20 copies
at the beginning of the field survey (I)
2. Progress Report ----- 20 copies
at the end of the field survey (I)
3. Interim Report ----- 20 copies
within two(2) months after completion of the field survey (I)
4. Draft Final Report ----- 20 copies
within two (2) months after completion of the field survey (II). His Majesty's Government of Nepal will provide JICA with its comments within three (3) weeks after the receipt of the Draft Final Report.
5. Final Report ----- 50 copies
within one and a half (1.5) months after receipt of the comments of His Majesty's Government of Nepal on the Draft Final Report

VI. UNDERTAKING OF HIS MAJESTY'S GOVERNMENT OF NEPAL

1. To facilitate smooth conduct of the Study, His

Majesty's Government of Nepal shall take necessary measures;

- (1) to secure the safety of the Japanese Study Team,
- (2) to permit the member of the Japanese Study Team to enter, leave and sojourn in Nepal for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees
- (3) to exempt the members of the Japanese Study Team from taxes, duties, and any other charges on equipment, machinery and other materials brought into Nepal for the conduct of the Study,
- (4) to exempt the members of the Japanese Study Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the member of the Japanese Study Team for their services in connection with the implementation of the Study,
- (5) to provide necessary facilities to the Japanese Study Team for remittance as well as utilization of the funds introduced into Nepal from Japan in connection with the implementation of the Study,
- (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study,
- (7) to secure permission to take all data and documents (including photographs) related to the Study out of Nepal to Japan,
- (8) to provide medical services as needed. Its

expenses will be chargeable on members of the Japanese Study Team.

2. His Majesty's Government of Nepal shall bear claims, if any arises against the members of the Japanese Study 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 wilful misconduct on the part of the members of the Japanese Study Team.
3. NTV shall act as counterpart agency to the Japanese Study Team and also coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
4. NTV shall, at its own expense, provide the Japanese Study Team with the followings, in cooperation with other relevant organizations:
 - (1) available data and information related to the Study,
 - (2) counterpart personnel
 - (3) suitable office space with necessary equipment in Kathmandu
 - (4) credentials or identification cards
 - (5) permission for use of radio communication
 - (6) vehicles with drivers

VII. UNDERTAKING OF JICA

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

- (1) to despatch, at its own expense, the Study Teams to Nepal,
- (2) to pursue technology transfer to the Nepalese counterpart personnel in the course of the Study.

VIII. CONSULTATION

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

ANNEX

TENTATIVE SCHEDULE OF STUDY

DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12	13
WORK IN NEPAL													
WORK IN JAPAN													
REPORT PRESENTATION													

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

添付資料-3 MINUTES OF MEETING

MINUTES OF MEETING
TO THE SCOPE OF WORK FOR THE DEVELOPMENT PLAN
OF
TELEVISION NETWORK
IN THE KINGDOM OF NEPAL

Kathmandu, NEPAL.

18th February, 1987

MINUTES OF MEETING TO THE SCOPE OF WORK
FOR THE DEVELOPMENT PLAN OF TELEVISION NETWORK
IN THE KINGDOM OF NEPAL

In response to the request of His Majesty's Government of Nepal for technical cooperation for the development plan of television network in the Kingdom of Nepal, the Government of Japan, through the Japan International Cooperation Agency, has sent a preliminary study team headed by Mr. Seiji Tanaka in February 1987 to discuss the draft of the scope of work on the study for the Development Plan of Television Network in the Kingdom of Nepal.

Mr. Neer Bikram Shah, Chairman & General Manager of Nepal Television explained the importance of the study. He said that nation-wide T.V. broadcasting was required for much contribution to diminish illiteracy, upgrade education level and living standards of the people. In addition, he strongly requested that establishment of T.V. network in Nepal should be carried out under Japanese Grant Aid as soon as possible.

Mr. Seiji Tanaka, leader of the preliminary study team, appreciated and expressed his thanks for the cooperation extended by Nepal Television and other organizations of HMG Nepal to the team.

During their stay in Nepal, the preliminary study team held series of discussions and exchanged views with the officials of Nepal Television.

As a result of the exchange of views and discussions in a most friendly atmosphere, both parties, the Nepal Television and the preliminary study team, have agreed upon the scope of work.

To discuss the draft of the scope of work, meetings were held from 10th to 17th of February 1987 at the Conference Room of Nepal Television. The list of attendants in the meetings are as per the attached sheet.

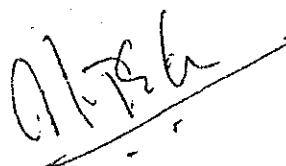
The Japanese Team met and had discussions with some dignitaries from different organizations of HMG Nepal. The list of the dignitaries is attached along with.

The major points confirmed between the Nepal Television and the Preliminary Study Team are attached herewith.

Signed in Kathmandu on 18th February, 1987.

田中征治

Seiji Tanaka
Leader of the Japanese
Preliminary Study Team
on behalf of
Japan International
Cooperation Agency



Neer Bikram Shah
Chairman & General Manager
Nepal Television
on behalf of
His Majesty's Government
of Nepal

Major points discussed and confirmed between Nepal Television and the Preliminary Study Team.

1. The Preliminary Study Team submitted the draft of the scope of work for the study on the Development Plan of Television Network to the representatives of the Nepal Television.
2. The draft of the scope of work submitted by the Japanese Team was accepted by the representatives of Nepal Television.
3. Nepal Television (hereinafter referred to as NTV) stated that it might be difficult to provide vehicles with drivers for the study because of financial reasons. However NTV shall make all transport means available to the Japanese Team at the latter's cost.
4. NTV requested that the study would be expected to commence one month ahead of the tentative schedule of study in the scope of work, because it might be difficult to carry field survey in June and July that is monsoon season. In response to the NTV's request, the Team promised that they would refer it for consideration.
5. The Team indicated that Japan International Cooperation Agency (hereinafter referred to as JICA) would arrange training courses in Japan for Nepalese counterparts.
6. Both sides agreed that data and information requested by the Team would be provided as soon as possible through JICA Office in Nepal.
7. Both sides came to an understanding on the study as follows:
 - (a) The field survey will be limited to the Kathmandu

Valley, Pokhara and parts of Terai region.

(b) The map survey will be carried out by the Team for other parts of above mentioned areas.

8. The Team stated that JICA would provide the equipments and machineries for the conduct of the study, which would remain the property of JICA unless/otherwise agreed upon.

NTV requested and stated as follows:

(a) JICA should supply the necessary equipments and machineries for the conduct of the study to NTV on grant basis after the completion of the study.

(b) It is desirable that those equipments and machineries would be useful for NTV's operations as well as test uses.

The Team noted the request.

(c) The list of the equipments and machineries to be brought by the Japanese Team would be made available to NTV before one month.

9. Both sides agreed that equipments and machineries for the propagation test would be installed at Phulchowki site and NTV would obtain the approval from the authorities concerned in order to use the existing facilities at Phulchowki, such as antenna tower and a part of the building, before the arrival of the survey team.

10. Both sides agreed that:

(a) NTV would select the frequency necessary for propagation test and communication purpose and would inform accordingly by the end of February this year.

(b) The Japanese Team requested that the frequency channel

is fixed at CH-4 which is the existing TV broadcasting channel of NTV, if other suitable channel could not be found.

(c) NTV would take necessary permissions and licences from the concerned authorities for the use of radio communication.

11. The Study team may be divided into different groups. Nepal Television will provide one counterpart to each group during the study at its own expenses.
12. NTV proposed and requested that there should be the provision for an administrative building along with studios and other facilities mentioned in the study.
13. NTV and JICA will consult each other and resolve matters mutually for any other requirements, concerning the study, as and when necessary.

LIST OF PARTICIPANTS

JAPANESE TEAM

1. Mr. Seiji Tanaka
Senior Advisor to the
Director General of Broadcast
Administration Bureau
Ministry of Posts and
Telecommunication (MPT)
2. Mr. Hideaki Kobayashi
Section Chief
International Cooperation
Division
Communication Policy Bureau
MPT
3. Mr. Masayuki Hirata
Chief Engineer
Planning Division
Headquarters of Engineering
Japan Broadcasting Corporation
(NHK)
4. Mr. Akihiko Takegami
Chief Producer
Educational Program Center
NHK
5. Mr. Kazuo Ichihara
Staff
Second Development Survey
Division
Social Development Cooperation
Department
JICA

JICA Nepal Office

1. Mr. Mitsukuni Sugimoto
Assistant Resident
Representative

NEPALESE TEAM

Representative of HMG/Nepal

1. Mr. Mukunda Prasad Acharya Under Secretary
Ministry of Communications

Representatives of NTV

1. Mr. Neer Bikram Shah Chairman & General Manager
NTV
2. Mr. Ravindra S.J.B. Rana Member, Board of Directors &
Director
Engineering Division
NTV
3. Mr. Tirtha Lal Shrestha Director
Special Task Force
NTV
4. Mr. Tapa Nath Shukla Director
Program & Production Division
NTV
5. Mr. Durga Nath Sharma Director
News Division
NTV
6. Mr. Om Krishna Sitoula Director
Planning and Administration
Division
NTV
7. Mr. Biswa Prakash Maskey Deputy Director
Finance Division
NTV
8. Mr. Puran S.J.B. Rana Technical Advisor
NTV
9. Mr. Shakti S.J.B. Rana Senior Engineer
Engineering Division
NTV
10. Mr. Gambhir Kanta Mainali Senior Producer
Program & Production Division
NTV

LIST OF DIGNITARIES MET BY JAPANESE TEAM

1. Mr. Chiran Sumsher Thapa Press Secretary to
His Majesty the King
of Nepal
2. Mr. Bishnu Pratap Shah Secretary
Ministry of Communications
3. Mr. Narsingh Narayan Singh Secretary
Ministry of Education and
Culture
4. Mr. Yadav Kant Silwal Joint Secretary
Ministry of Foreign Affairs
5. Mr. Punya Prasad Dahal Joint Secretary
Foreign Aid & Coordination
Division
Ministry of Finance
6. Mr. Harsha Man Shrestha Managing Director
Nepal Electricity Authority
7. Mr. Amrit Nath Regmi Member, Board of Directors
NTV
8. Mr. Bhoop Raj Pandey Member, Board of Directors
NTV
9. Mr. Subarna bahadur Chhetri Member, Board of Directors
NTV
10. Mr. Bhogya Prasah Shah Manager
Radio Broadcasting Services
(Radio Nepal)
11. Mr. Suresh Kumar Pudasaini General Manager
Nepal Telecommunication
Corporation
12. Mrs. Teeka Simha Chairman cum General Manager
Royal Nepal Film Corporation

添付資料一 4 PROJECT PROPOSAL FOR THE ESTABLISHMENT OF TELEVISION
NETWORK IN THE KINGDOM OF NEPAL FOR EDUCATIONAL PROGRAMS
PRODUCTION AND BROADCASTING

PROJECT PROPOSAL

FOR

THE ESTABLISHMENT OF TELEVISION NETWORK IN THE KINGDOM OF NEPAL
FOR EDUCATIONAL PROGRAMS PRODUCTION AND BROADCASTING

Nepal Television
Singh Durbar
Kathmandu, Nepal
August, 1986.

C O N T E N T S

1. INTRODUCTION

2. BACKGROUND AND SITUATION

3. JUSTIFICATION

4. OBJECTIVES

5. OUTLINE OF THE PROJECT

6. TECHNICAL ASSISTANCE FOR EXPERTS SERVICES

7. IMPLEMENTATION SCHEDULE

8. EXECUTIVE AGENCY OF THE PROJECT

9. ANNEX

1. INTRODUCTION

His Majesty Government has the policy for development for communication media including TV broadcasting medium as follows:

1.1 With a view of attaining consolidated developmental efforts of the country His Majesty's Government brought out National Communication Plan in 1971. "Communication for Development" was central theme of this plan. The plan has laid down the importance of the roles of different media in mobilizing the people in attaining the goal of National Development.

1.2 The communication plan has laid down the following communication objectives of His Majesty's Government.

- To avail the active participation of general public in the developmental activities;
- To strengthen the national unity of the Kingdom;
- To improve the standard of education of general public;
- To expand the international understanding;
- To raise the standard of living of the people in the country;

1.3 The major policies of NTV will be as follows:

- To attain self sufficiency in its operation;
- To work in attaining the communication objectives of His Majesty's Government under its policy guide lines;
- To work for the establishment of national television network;
- To improve the efficiency of the organization for increasing quality of its broadcast;
- To educate the general public in the different areas of health, hygiene and nation building;
- To educate children of different levels i.e. kindergarten, primary, lower secondary and higher secondary schools through this media vis-a-vis train teachers;
- To help increase the literary ratio.

2 BACKGROUND AND SITUATION

2.1 General Description:

- 2.1.1 Nepal, sovereign Hindu Kingdom, lies on the lap of highest mountain ranges of the Himalayas. Roughly rectangular in shape, the country is located between 26 22' to 30 27' north latitude and 80 04' to 88 12' east longitude. Nepal covers an area of 54,718 sq. miles. About 1/6 of the total land area is under cultivation and the rest is covered by high mountains, snow and forests.
- 2.1.2 Nepal displays an unique variety of geographical settings, ranging from the southern low-land to the high mountainous region in the north. The terai region in the south ranges from 500 to 4,000 ft. in altitude and covers about 17 percent of the country's total area. North of the terai lies the middle vision with an altitude from 2,000 to 16,000 ft. and covers about 60 percent of the country's total area. North of the middle region lies the great Himalayan range. This perpetually snowy region lies between the altitude of 16,000 and 29,000 ft. and covers the rest of the country.
- 2.1.3 Owing to the difference in altitude, Nepal has an exceptional variation in climate. The annual mean temperature of the country is about 16 C. Rainfall is concentrated in the monsoon period. The total precipitation varies from 1,000 mm. to 2,000 mm. Rainfall is highest in the eastern part of the country and lowest in the western part. The winter is generally dry and coldest in December and the temperature raises impressively after that.
- 2.1.4 Hinduism and Buddhism are the two main religions of the country. This is a country with different ethnic and cultural groups inhabiting in different parts of the country. But the people of different religion and culture lived in peace and harmony.
- 2.1.5 For a harmonious and systematic development efforts and administrative links, the country is divided in 5 development regions, 14 zones and 75 districts. These are shown in the map of Nepal attached in the annex.

- 2.1.6 The population of the country is rising at more than 2 percent per annum. The population of 1981 was about 15 million and projected population of July 1986 is about 17.13 million in the total household of 2,585,000. Percentage of female population is 48.8 percent. Population density per sq. km. is 116.4. Population density per household is 6.63.
- 2.1.7 The present literary rate of the country is low compared to a lot of other developing countries. The percentage of literate population is about 30 percent.
- 2.1.8 Some important economic indicators of the Kingdom are presented below:

=====	
G.D.P. - 1985/86 (at Current Price)	NRs. 49,719 Million
Agriculture	NRs. 29,970 Million
Non-Agriculture	NRs. 19,749 Million
Growth	4.2 %
G.N.P. - 1984/85 (at Current Price)	NRs. 42,389 Million
Growth	9.2 %
Consumption Expenditure (84/85) as % of G.D.P.	88.1 %
Export (1984/85)	NRs. 2,740 Million
Import (1984/85)	NRs. 7,742 Million
Trade Deficit	NRs. 5,002 Million
Balance of Payment	NRs. (-866) Million
Foreign Exchange Reserve	NRs. 2,383.4 Million
=====	

2.2 Television and videos have gained popularity in Kathmandu and other parts of the country. At present the estimated number of TV sets in Kathmandu valley is above 8,000. In 1985 and 1986 a total number of 3,000 and 5,000 TV sets were imported in the country respectively. This high percentage of import of TV sets could be due to the starting of TV transmission by NTV. Popularity of TV viewing is increasing in the terai

region due to reception of Door Darsan (Indian Transmission). Present statistics portrays that there are more than 3,000 TV sets in the terai region.

- 2.3 Different levels of schools in the country and the number of students to be covered by TV network in the different phases are as follows:

	Phase I	Phase II	Phase III	Phase IV
Primary Schools	482	3,126	3,423	4,652
No. of Students	132,000	541,300	570,000	482,700
Lower Secondary School	198	966	998	1,248
No. of Students	26,000	82,000	73,000	56,000
Secondary School	128	255	412	348
No. of Students	31,000	77,500	62,000	43,800

Countrywide Total

No. of Primary Schools	11,690
No. of Students	1,726,000
No. of Lower Secondary Schools	3,410
No. of Students	237,000
No. of Secondary Schools	1,143
No. of Students	214,300

- 2.4 At present Kathmandu has about 20 electronic workshops (organized and unorganized form) to carry out the repair and maintenance of TV and Video systems. Towns in the terai region have technicians (mostly untrained) who do the repair jobs. There are quite a good number of people in Kathmandu who fabricate antennas and install them. These type technicians are increasing in the terai region as well but it can be said that there is a shortage of trained technicians to undertake the repair

and maintenance of TV sets. The situation has to be changed in the years to come to meet the growing requirements.

2.5 Nepal Television (NTV) established Community Viewing Centers (CVC) right from the beginning of its experimental TV broadcasting. Response in these CVCs have been found very encouraging. Initially NTV had established 12 CVCs in the urban areas of Kathmandu valley when NTV covered His Majesty the King's Visit to Australia in September, 1985. The CVCs were also operating during the half hour experimental broadcast of NTV. On an average each CVCs used to have about 500 viewers per day. NTV operated CVCs for the second time during the visit of Her Majesty the Queen of Great Britain. At that time 25 CVCs were installed in the rural areas of Kathmandu valley. The number of viewers at each center varied from 100 to 1,000 per day with an average of an about 10,000 people visiting these CVCs daily. Most of people traveled 4 to 5 km. to these centers for viewing the NTV programs. Villagers who did not have CVCs established in their village have approached NTV for one. With these increasing demands NTV had to face political and social stress due to insufficient supply of TV sets and NTV had to close all the existing CVCs as well.

2.6 As pointed out earlier the country lacks trained manpower in the area of electronics. With emergence of NTV, Tribhuwan University has started some TV related courses in their curriculum. Institute of Engineering, Pulchowk Campus, admits 24 students a year in its certificate course in electronics, where basic knowledge of television is given. This is a two years course which is being extended to a three years course. The Institute of Engineering is planning to start a graduation course in electronics from their 1988 session. The University has also introduced TV journalism as a subject in its certificate course in journalism.

2.7 Present Situation of Nepal Television:

2.7.1 NTV was established in a project form under the Communication Ministry in January 1985. It started functioning in a room in the building of Ministry of Communication, with three staff members. TV broadcasting on an experimental basis was started in UHF band in Kathmandu to coincide with His Majesty's State visit to Australia. This experimental broadcast continued till NTV installed a 100 watt VHF transmitter to cover the valley. Regular transmission of 2 hours started

from December 29, 1985 on the auspicious occasion of His Majesty's 41st. birthday.

- 2.7.2 His Majesty's Government declared NTV a full fledged independent public corporation in February 1986, under the Communication Act of the Kingdom. A five member Board of Directors was appointed as its highest decisions making body.

Board of Directors

Mr. Neer Bikram Shah Chairman & General Manager	Chief Executive
Mr. Amrit Nath Regmi Deputy General Manager (NIDC)	Member
Mr. Bhupa Raj Pandey Advisor, Ministry of Communication	Member
Mr. Subarna Bahadur Chhetri Nepal Sports Council	Member
Mr. Ravindra SJB Rana Director Of Engineering (NTV)	Member

The board is independent in the management of the television under the policy guidelines of His Majesty's Government.

- 2.7.3 The day to day management and operation of NTV is done by a group of professionals under the Chief Executive Officer. The organization structure of NTV is shown in the Annex.

- 2.7.4 Nepal Television had vary few staffs at the beginning. The employment in NTV grew in due course of time. The nos. of people employed in NTV in different time period are as follows.

=====	
Beginning	5 nos.
Regular transmission on 29th Dec. 85'	37 nos.
July 1986	111 nos.
=====	

Initially HMG sent a group of 16 people to Netherland for training in the different areas of television. It is rather a bad luck of NTV that only one person from among the group is presently

with NTV. Most of the other people decided not to leave their previous jobs they were selected from. World view International Foundation Nepal trained a group of 32 people selected by NTV. This group of young people is the nucleus of NTV's operation at present. Recently WIF completed the training of another batch of 19 people.

2.7.5 Major activities of NTV can be summarized in its following functions:

1. Programming & Production - The responsibilities of the division are
 - Production of different programs for its day to day broadcasting;
 - Scheduling daily program broadcasting;
 - Planning & Making contracts with different private individuals and parties for the production of programs.
2. News-NTV broadcasts two news in Nepali & English languages daily. The news time consists of fifteen minutes in English and twenty minutes in Nepali. Collection, selection, editing of local and international news and visuals and reporting of major national and international events are the major responsibilities of this division.
3. Engineering-Operation of studio and other related activities, transmission of programs and repair and maintenance of equipments are the major functions of the division.
4. Administration - General administration, management of personnel functions & security are the major responsibilities of this division.
5. Fiscal Administration - Financial planning, management of revenue and expenditure accounting and commercials are its major responsibilities.
6. Special Task Force-A special task force has been organized for long term and short term planning, planning for time and network extension, the strategies planning and research required in NTV.

7. Along with these functions a committee has been formed for general program policy determination and quality inspection under the Chairmanship of the Chief Executive Officer.

2.7.6 In its present broadcasting of two hrs the percentage of Nepali programs is about 60% while 40% of the programs are imported one. This ratio has been attained by NTV in its six months of operation. Initially the ratio was just the reverse. Nepalese program consisted of only about 40% of its transmission time. Contentwise existing programs broadcast of NTV can be grouped in three major areas(excluding commercials). The percentage of average time provided per week to these areas is as follows;

- a. Educational - 40%
- b. News - 30%
- c. Entertainment - 30%

It shows that educational and news are the major time sharer of the existing broadcast time.

2.7.7. The percentage of Nepali program will go on increasing. It is expected that in the coming two years the contents of Nepalese programs will be about 75% of the total transmission time. After one year of the completion of the first phase the nepalese program contents will be over 80%.

2.7.8 Presently NTV is operating its broadcast with limited facilities and equipments. Most of the equipments has been loaned by WIF.

1. Existing facilities in NTV are as follows:

<u>Facilities</u>	<u>Nos.</u>	<u>Size</u>
Studio	one	56 sq. mtr
Control room	one	21 sq. mtr
Editing room	one	38 sq. mtr
Transmission room	one	2.5 sq. mtr

2. The equipment presently with NTV are as follows:

<u>Equipments</u>	<u>NTV</u>	<u>WIF</u>
1. Studio Cameras	0	3
2. Editing sets	1	1
3. Vision mixer	0	1
4. Vision switcher	1	0
5. Monitors	5	4
6. TEC	0	1
7. Audio mixer	1	0
8. Field Camera VHS	3	0
9. Audio Set	1	0
10. Light and mike sets	3	0
11. Intercom sets	3	0
12. VHF 100 watts transmitter	1	0

2.7.9 The income and expenditure of NTV in the year 1985/86 and estimated income and expenditure of 1986/87 are as follows:

Major heads	1985/86	1986/87 (est.)
Administrative (salaries included)	1,814,000	4,172,000
Production (direct expense)	1,000,000	4,928,000
Engineering (equipment & construction)	9,660,000	8,200,000
Total expenditures	12,474,000	18,300,000
Total income	1,398,000	4,300,000

The income as shown above is from advertisement and sponsored programs. Presently there is no fee from TV set owners. In the year 1986/87 it is estimated that income from commercials will suffice to meet its administrative expense. The income from commercials is expected to increase substantially after the completion of phase 1 & phase 2 of their proposals.

2.7.10 Future Plan:

NTV's activities will have major emphasis in attending the following objectives during the

seventh plan period;

1. Expansion of the existing transmission coverage towards attaining the national network.
2. Extension of the existing transmission time reaching a minimum of 4 hours daily.
3. Introduction of educational programs for school students and general public.
4. Transmit programs to the viewers choice and demands.
5. To improve the efficiency and quality of broadcast.

2.7.11 NTV has the following plans for achievements towards the fulfillment of its seventh plan objectives:

1. NTV has plans to install a 1 KW transmitter at Phulchowki in the fiscal year 1986/87. This will facilitate the expansions of the year coverage in the south and south east terai region.
2. The existing broadcasting time of 2 hours will be extended to three hours during this year. The extended time of one hour will be used mainly for entertainment programs. By the end of 1986 NTV will be broadcasting a minimum of 2 hour programs every Saturday which is a weekly off day.
3. Audience views will be taken this year to find out their reactions, choices and preferences of programs and time. Their views will be of help to NTV in planning its future programs and timings.

2.7.12 A workshop was organized by NTV for the choice of frequency bands for TV broadcasting in Nepal. The workshop was attended by a member of National Planning Commission, officers of the Ministry of Communications, Engineers of Nepal Telecommunication Corporation and NTV. The participants after necessary discussions and consultations reached to the following conclusions and recommendations;

1. NTV should go for VHF broadcasting. Channel allocations should be made with close

consultations with TV stations of neighboring countries.

2. NTV should set as many CVCs as possible. These CVCs should be tuned to receive NTV broadcast only. NTV should also explore possibilities of involving local panchayats in setting up CVCs.

3. JUSTIFICATION

This proposal for the establishment of TV stations in Nepal for educational program broadcasting is justifiable from different angle and considerations. The major justifying factor for this project are as follows:

3.1 The topographical conditions is a big hindrance for fast communications through the print and other medias, other than transmitting by electro-magnetic waves. A newspaper or magazine printed in Kathmandu takes almost weeks or even months to reach several parts of the country.

3.2 Large number of illiterate population cannot be reached through print media. Audio-visual effectiveness lies in its capabilities to reach mass better than the print media. The significant feature of effectiveness of TV for the purpose of educating general mass and school children is that it creates general interests and increases their knowledge and skills on the particular areas.

3.3 TV educational programs cannot be a substitute to the classroom education but it acts as catalyst to the classroom teaching.

3.3.1 Presently the country has a shortage of trained teachers. Percentage of trained teachers in the different levels of school is as follows(84/85):

Level	% of trained teachers
Primary School	32%
Lower Secondary	43.8%
Secondary	55%

The impact of shortage of trained teachers is seen in the annual result of Matriculation examination. The present pass percentage in the Matriculation examination is below 30%. TV aided school level education program can assist in solving this shortage of trained teachers. One or two trained teachers in TV programs can help in teaching a large nos. of school children.

- 3.3.2 Education through TV is economical and saves time in comparison to other traditional teachings. About 100 people or students can effectively watch a TV receiver. If a receiver system is used by each of 200 schools about 20,000 people can be educated at a time. To educate 20,000 students at a time needs 400 class rooms and equal nos. of teachers. The cost of training these 400 teachers is also an enormous activity which needs a huge sum of money and time.
- 3.3.3 On the other hand the task of training teachers can be facilitated to a great extent through TV network. This will help to a larger extent of solving the problems of shortages of trained teachers in the school.
- 3.4 Presently a lot of schools and students do not get books and education materials in time, which hampers the teaching and study in the schools of different parts of the country. The coverage of schools and nos. of students is shown in 4.3 of the report after the completion of different phases which will facilitate in helping the students with their curriculum.
- 3.5 Television with its powerful impact on the viewers can be an effective media for providing information to the general public about the different activities of national building increasing understanding among different ethnic and religions groups and building and strengthening national unity. In the present day world of every sort of disturbances, peaceful co-existence and integrative of different ethnic, cultural and religions groups is a must for our survival as a peaceful national and TV can play an important role for this.
- 3.6 There exist a lot of taboos and harmful believes among the large nos. of people due to the higher percentage of illiteracy among the general public. TV through its audio visual power can help to educate the people in wiping out these harmful taboos and believes and building habits of a good human beings and loyal citizens.

3.7 Present rate of population growth of Nepal is quite higher in comparison to a good nos. of developing countries. This may create an explosive situation disturbing the vital task of nation building and upset the peaceful situation of the country. There is a greater need in controlling the population growth at this rate. The success or failure in the family planning measures will give a total population of Nepal in the future days to come as follows:

Year (B.S.)	Success of Family Planning	Failure of Family Planning
2001	19,735,000	25,315,000
2021	22,905,000	44,400,000

The above data clearly provides a major concern and the urgency in making the family planning project a success. The impact of failures of the efforts in population planning can just be imagined. Television can be most effective to the mass of illiterate people in educating them.

3.8 The revenue income from the television could consist of the following:

Fees raised from the TV set owners annually or once in its life time.

Fee for broadcasting time by the business organization for its benefits.

The Government has to pay for the utilization of the media.

3.9 Purely economic cost benefits analysis as in the case of agriculture and industrial projects can not be used for the infrastructural projects like television. Such projects cannot make a market price in its actual monetary terms. It makes the tasks of measuring full cost-benefit a difficult one. Though it cannot be said that economic cost-benefit should not be considered at all but in the developing country like ours complete lack of price mechanism functions make it impossible to measure the projects as the net benefit of the project. So the project has to be evaluated and considered with its infrastructural value social benefits that accrues in the long run. On the basis of these factors and

justifications we consider an educational TV network as the best possible media for the nation building and wish to establish the net work as soon as possible.

4. OBJECTIVES

- 4.1 The objective of this project is to establish a TV network in the Kingdom of Nepal for educational program, production and broadcast.
- 4.2 NTV came to existence in project form in accordance to the policy guideline of His Majesty the King to the National Panchayat in the year 1981. The major objectives behind the concept of establishing television in Nepal were:
 - 4.2.1 To make the people aware with the developmental pace and encourage the active participations in the task of Nation building.
 - 4.2.2 To bring the fruits of modern technological development to the people with its potential and effective mass impact in the economic, social, cultural, religion and educational area of the country.
 - 4.2.3 To strengthen national unity in the Kingdom.
 - 4.2.4 To help increase the literacy rate.

5. OUTLINE OF THE PROJECT

The establishment of network for educational program production and broadcast in the Kingdom of Nepal has been divided in four phases.

5.1 First Phase

The coverage of program broadcasting in Kathmandu valley only. The components of the First Phase will consist of the following:

5.1.1 Construction of the broadcasting stations and broadcasting system. (Existing broadcasting station in the Central Secretariat building is insufficient and just temporary). The construction will involve the following:

i) Construction of 3 (three) Studios

400 sq.m

200 sq.m

100 sq.m

ii) Construction of transmitting station.

iii) Establishment of suitable and efficient studio transmitting link.

5.1.2 Make avail necessary for the studio and connected services, transmitting stations and linkage system, provision for outside broadcasting system.

5.1.3 The plan for total manpower requirement for the Phase-I and subsequent Phases has to be done in this Phase because of necessary training required to prepare them in taking over the function in all Phases.

5.1.4 A provision should be made for hiring Foreign Consultant Experts as follows:

Project implementation	Duration
=====	=====

Project counterpart	4 Years
Engineering Experts	4 Years
Production Experts	3 Years

Training Experts

One Expert	1 Year
Other Expert	3 Years

5.2 Second Phase:

This is the most important Phase for it will open the door for national TV network. A powerful transmitter will be established at Pulchowki and few repeaters in the eastern part of the country. After completion of the Second Phase, TV programs will be received in the southern and south-east part of the country.

5.3 Third Phase:

This Phase consists of constructions of repeater stations and to cover west and south-west part of the country. About six repeater stations are required.

5.4 Fourth Phase:

This is the last Phase in the National TV Network Plan. eastern hills and western hills fall under this Phase. Exact number of repeaters cannot be forecasted at this moment because of difficult topographical situation of the places. However, ten repeaters have been estimated.

5.5 The tentative coverage of the areas after the completion has been shown in the Annex

5.6 The estimated population to be covered after the completion of the different Phases is as follows:

Phase	Number of Districts	Population Coverage*	% of Total Population
ONE	3	874,000	5
TWO	17	6,207,000	36
THREE	19	4,974,000	29
FOURTH	36	5,075,000	30

* Estimated projected population of July 1986 by

5.7 Tentative cost calculation for different Phases is as follows:

This cost calculation is a crude estimation:

Phase	Major cost areas	Estimated cost (NRs.) (In thousands)
ONE	Buildings & Civil Const.	10,000
	Furnishing & A/C	5,000
	Equipment	
	Studio 3/4 highband	40,000
	EFF, ENG & OB Van	15,000
	Transmitting & STL	17,500
	Vehicles	4,500
		<hr/> 92,000
TWO	Civil Const. & Equipment Installation at Pulchowki	25,000
	Civil Const. & Equipment Installation of 2 repeaters @ 5,000,000	10,000
		<hr/> 35,000
THREE	Six Repeaters @ 5,000,000	30,000
FOUR	Ten Repeaters @ 5,000,000	50,000

TOTAL COST

Civil Construction & Equipment
installation for all Four Phases.... 207,000,000

Cost of Foreign Experts
@ 2,500 US \$ per month..... 11,200,000

Training of NTV Staff
(Short-term & Long-term)...L.S..... 5,000,000

Sub-Total NRs 223,200,000

Establishment of School &
College Level TV receiving
system in the Four Phases 25,000,000

Contingency Provision for
Inflation @ 10% of Total Cost 24,800,000

TOTAL PROJECT COST (NRs)..... 273,000,000
=====

6. TECHNICAL ASSISTANCE FOR EXPERTS SERVICES

Nepal Television is operating its programs without the help of any outside experts and advisors. The help and co-operation of experts in some of the vital areas for a period of two to three years is felt essential. The areas where the assistance of the experts have been felt are the following:

- 6.1 Program production : Production of educational TV programs is a technical task. One or two foreign experts have to be made available to help and assist NTV in the formulation and production of such programs.
- 6.2 Engineering : The function in the engineering side consist of repair, maintenance, audio engineering, video engineering, transmitting and receiving engineering. Nepal does not have trained manpower in these areas. The assistance for long and short term expertise in these areas have to be identified and planned accordingly.
- 6.3 Training the necessity of assistance in these areas consists of two major tasks: i.e. trained local NTV staff and outside staff, assist NTV for the establishment of a training centers.

7. IMPLEMENTATION SCHEDULE

- 7.1 Preparation period 1966
- 7.2 Phase One Construction period 1967
- 7.3 Start of the Operation... .. End 1967
- 7.4 Construction Schedule after
Completion of Phase One in accordance
to the recommendation of the Study
Team

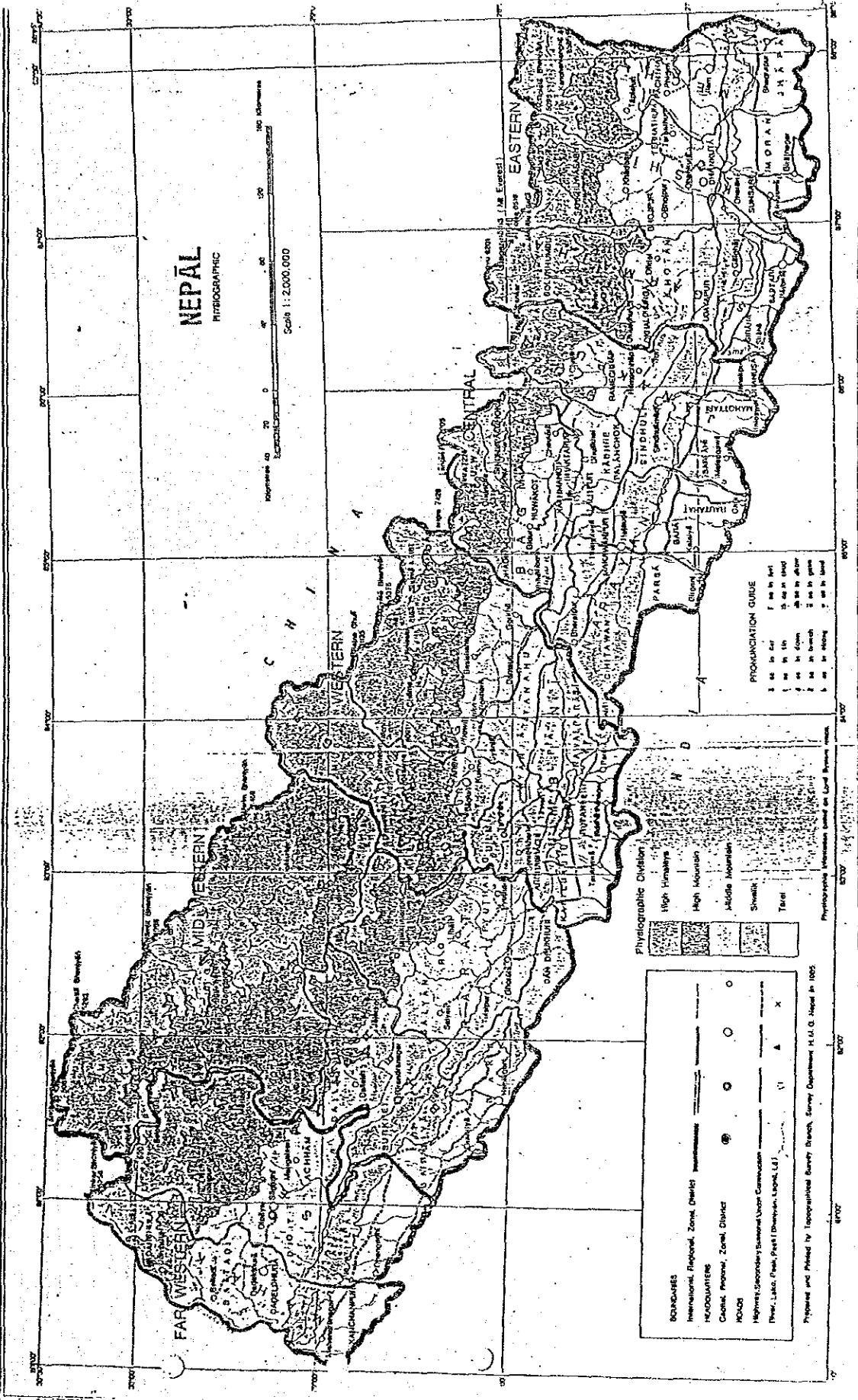
The First and Second Phases of the Project are to be completed within the Seventh Plan Period. The preliminary work for the Third and Fourth Phases will be completed during this planning period.

8. EXECUTIVE AGENCY OF THE PROJECT

Nepal Television will be the executing agency of the Project on behalf of the Ministry of Communication, His Majesty's Government of Nepal.

9. ANNEXES

1. Physiographic Map of Nepal
2. Transmission Coverage Phasewise
3. Existing Organizational Structure of Nepal Television
4. Existing Tele-communication Map of Nepal



NEPAL
HYDROGRAPHIC

Scale 1:2,000,000



BOUNDARIES
International, Regional, Zone, District

ROADS
Chief, Regional, Zone, District
Highway, Secondary, Tarmac, Motor, Communication
(Thin, Lined, Thick, Plain, Paved) (Dashed, Dotted, Solid, Lined)

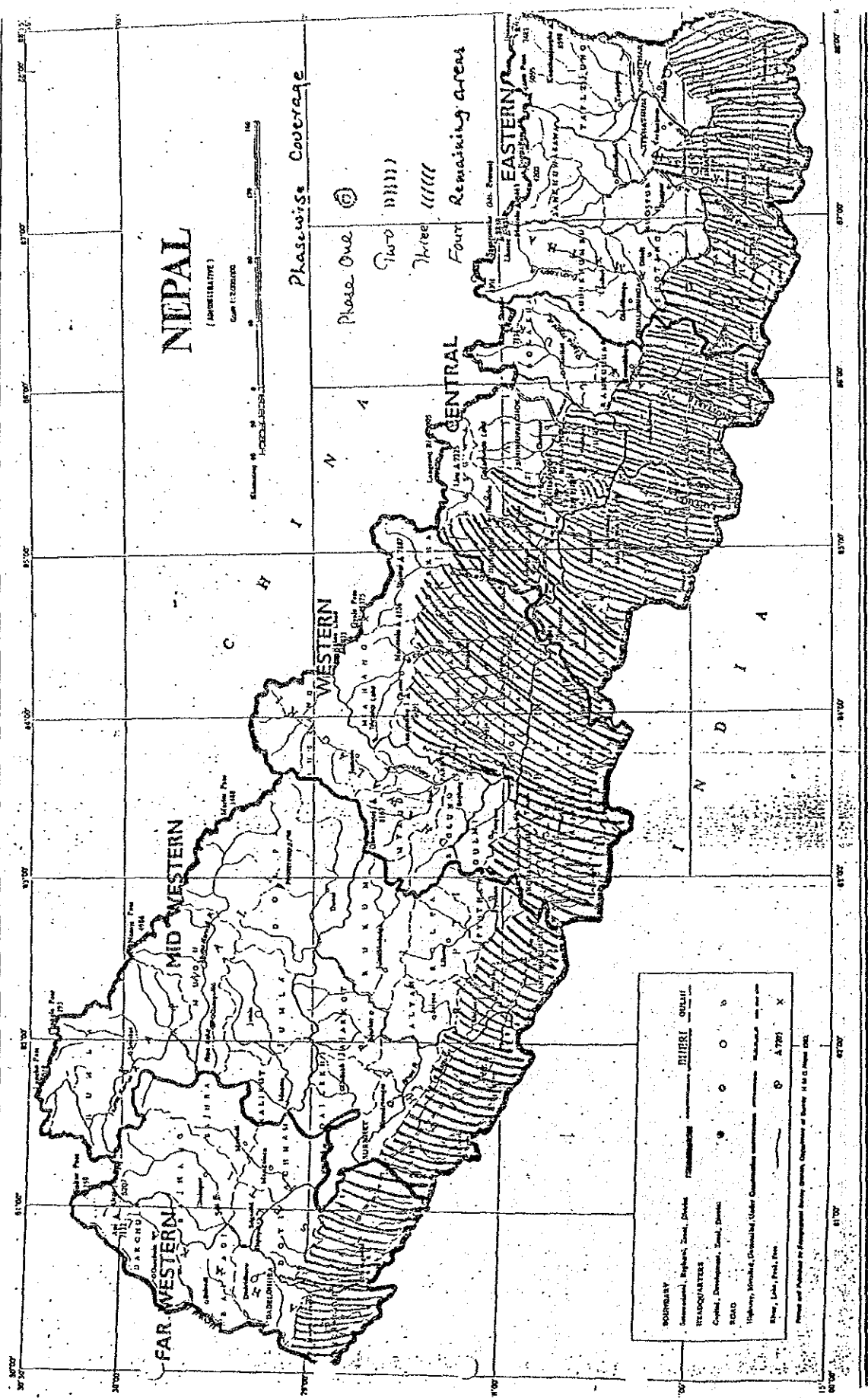
PHYSIOGRAPHIC DIVISIONS
High Himalaya
High Mountain
Middle Mountain
Swath
Tidal

Physiographic Information based on Land Revenue Maps.

PROMANCIATION GUIDE

1	in car	1	in car
2	in car	2	in car
3	in car	3	in car
4	in car	4	in car
5	in car	5	in car
6	in car	6	in car
7	in car	7	in car
8	in car	8	in car
9	in car	9	in car
10	in car	10	in car

Prepared and Printed by Topographical Survey Branch, Survey Department, P.O. Nepal in 1965



添付資料－5 事前調査団が出した質問状

QUESTIONNAIREONTHE DEVELOPMENT PLAN OF TELEVISION NETWORK

Please answer, in writing, the following questionnaire together with supporting data/documents.

1. General

1.1 National Development Plan

- 1) Outline of the National Development Plan
- 2) Priority and role of TV broadcasting in the National Development Plan

1.2 Social infrastructures related to TV broadcasting

- 1) Present situation and future plans of electric power services
- 2) Present situation and future plans of telecommunications services

1.3 General situation

- 1) Present status of mass media such as newspaper
- 2) Present status of education and information industry including the films
- 3) Standard prices of various entertainments, i.e., show, drama, film, opera, concert, sports event and so on

1.4 Maps

- 1) Maps of Nepal
- 2) Maps of 1/50,000 scale around the planned sites of broadcasting stations
- 3) Detail maps of the planned site

2. Education

2.1 Present educational systems and future plan

2.2 Statistics concerning education

- 1) Population in school age
- 2) Number of school, teacher and pupil
- 3) Annual budget for educational sector

2.3 Necessity and role of TV broadcasting in educational sector

3. Television broadcasting

3.1 Population coverage and land coverage on the existing TV service and future plan

3.2 Number of TV receiver distributed and future forecast

3.3 Present programme composition and future plan

- 1) Percentage of self-production programmes
- 2) Ratio by the programme categories
- 3) Ratio of live and recorded programme
- 4) Actual broadcasting hours and future plan
- 5) Ratio of studio utilization in a day (including data as to how many programmes to be produced in a studio per day)

3.4 Present status of existing facilities (including numbers, passing ages, etc.)

- 1) Programme production facilities
- 2) Transmitting facilities and output power
- 3) Other relevant facilities

3.5 TV broadcasting development projects in progress and under consideration

3.6 Organization of NTV and the authorities concerned

- 1) Organization chart
- 2) Names of Key persons
- 3) Names of possible counterpart personnels
- 4) Number of staff by sector

3.7 Revenue and expenditure of NTV for the past years and future forecast

- 1) Development budget
- 2) Operational budget
- 3) Subsidy by the Government
- 4) Income from commercial broadcasting

4. Others

4.1 Data and informations concerning building construction

- 1) Topographic data and subsoil survey result at the site
- 2) Materials available to be purchased in Nepal
- 3) Material prices
- 4) Labourer's skill and wage in Nepal
- 5) Other relevant data

4.2 Laws and regulations for the project execution

- 1) Laws and regulations related to NTV
- 2) Other laws and regulations influencing the preparation of the project

添付資料-6 収集した資料リスト

(放送関連資料)

- 1 REPORT ON WORKSHOP ON CHOICE OF FREQUENCY BANDS FOR TELEVISION BROADCASTING IN NEPAL (NEPAL TELEVISION)
- 2 VHF/UHF WHY & WHAT
- 3 DAILY TRANSMISSION SCHEDULE
- 4 ORGANIZATIONAL CHART (NEPAL TELEVISION)
- 5 NTC ANNUAL REPORT
- 6 Worldview International Foundation (1980/85)

(一般資料)

- 1 The Seventh Plan (A Summary) 1985-1990
- 2 STATISTICAL POCKET BOOK (1986年)
- 3 Government Finance in Nepal
- 4 POPULATION AND FAMILY PLANNING IN NEPAL
- 5 NEPAL DIMENSIONS OF DEVELOPMENT
- 6 NEPAL Feudalism and Rural Formation
- 7 NEPAL DISTRICT PROFILE EDUCATION
- 8 Books on NEPAL (本のカタログ : RATNA BOOK DISTRIBUTORS Pvt.Ltd.)

(地図)

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|-----------|--------------|-------------------------------|
| 1 ネパール全土 | 1: 750,000 | 等高線入り |
| | 1:1,408,000 | RELIEF MAP OF NEPAL |
| | 1: 940,000 | Latest Road and Trekking Map |
| | 1:1,340,000 | Latest Political Map of Nepal |
| 2 カトマンズ盆地 | 1:50,000 | 等高線入り |
| | 1:10,000 | Kathmandu City |
| | | 市街地図 |
| 3 ポカラ地区 | Trekking Map | 等高線入り |
| | | 市街地図 |

JICA