

資料 5

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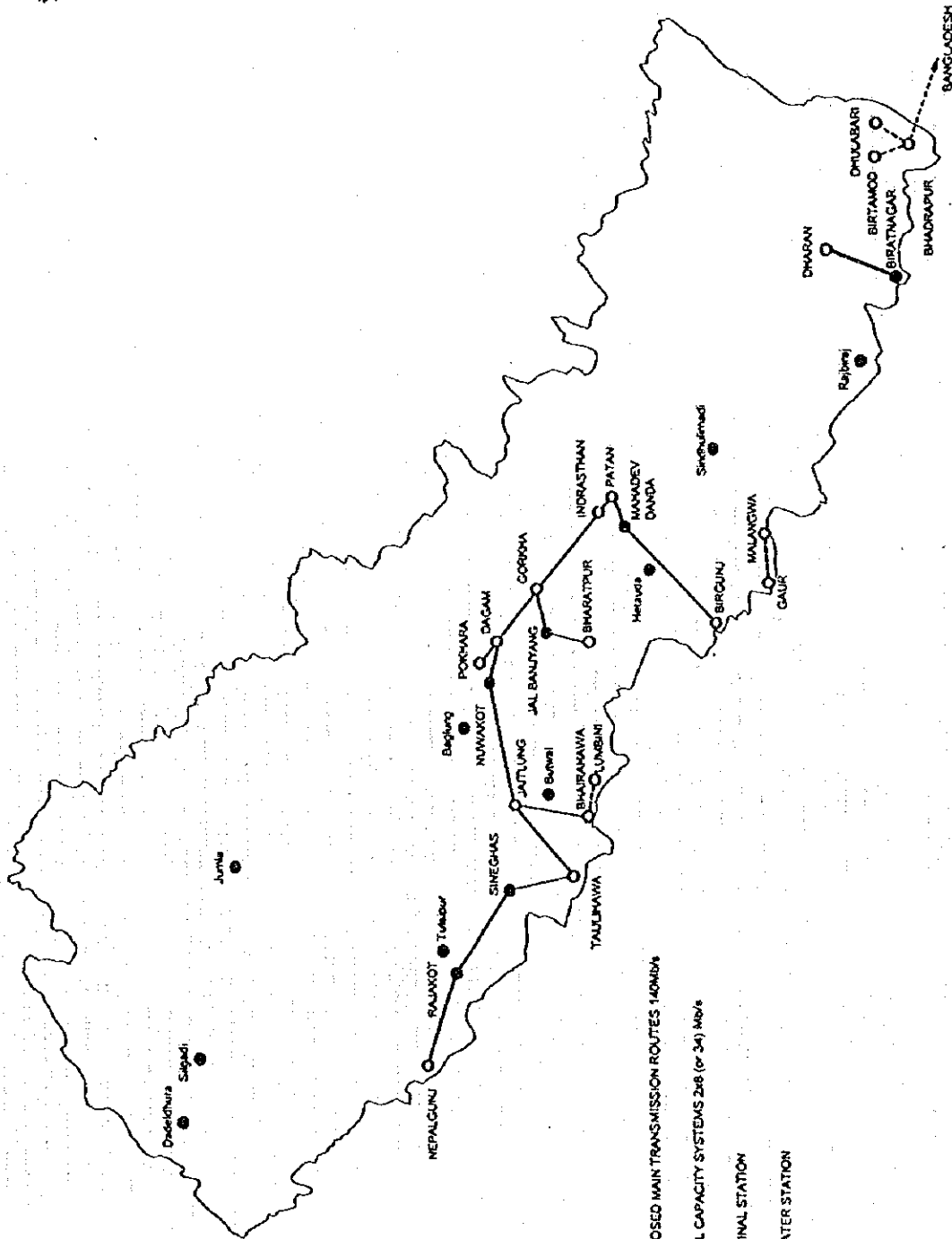
- 5 - 3 - 1      CENTRAL OFFICE,  
PROPOSED/APPROVED BUDGET FOR FY 1994/95  
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- 5 - 3 - 2      市外線保守運用部職員年度別増員計画 (1999年まで)
- 5 - 3 - 3      市外線保守運用部職員現行
- 5 - 4          電話普及率及び積滞
- 5 - 5          重要加入者名  
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- 5 - 6          情報通信省組織図
- 5 - 7          サイト調査データ
- 5 - 8          電話加入費用及び課金表  
(TELECOMMUNICATION TARIFF)
- 5 - 9          電気通信訓練センター  
(1)組織図  
(2)訓練計画, 1994/1995年  
(3)訓練実績(1989/1990~1994/1995年)
- 5 - 1 0        世界銀行  
調査委員会第5次電気通信プロジェクト  
(クレジット 2364-NEP) 支授録

ネパール西北部・国内電気通信網整備計画B/D概要説明

調査団は、5月19日 本計画実施機関のNepal Telecommunications Corporation (NTC)、Deputy General Manager, Mr. Nidhya Bhusan Vajracharya との間で、基本的に対処方針の通り、M/Dに署名した。主な報告事項以下の通り。

1. 本計画の使用周波数帯については、NTCとしては前無償案件と同様、2GHz帯の使用を希望しているもののITU勧告を踏まえネパール国の電波管理を実施している通信省と相談の上、決定したいという意向であったので、コンタクト現地調査終了までに日本側へ知らせる旨M/Dで約束せしめた。
2. 1987年日本の無償資金協力で伝送路を導入したBidurの町を訪れ、電話の需要を満たすためNTCが小型交換機を導入し、交換容量 250回線中、248回線が使用され、伝送路が有効利用され、通信能力が拡充されている現状を確認した。更に公衆通話取扱所・病院等を訪れ1987年に導入された電話機が現在も使用され、いずれも1日30通話程度使用されていることを聴取確認した。
3. カトマンズのNTCのトレーニングセンター、長距離修理部門を訪れ、前無償案件で導入された機材の運用・修理している状況を視察し、NTCの運用・修理技術が比較的高いことを確認した。また衛星地球局、中央交換局を訪れNTCの運営能力の高さを確認した。
4. 本計画対象の01、08、09地区の55の町へ世銀がMARTSシステム（小規模4回線程度の無線集約設備で将来の交換機新設には対応できない。）を導入済、導入計画中であり、この55の町には、本計画対象の11の郡庁レベルの町も含まれていた。しかしながら以下の理由により、当初M/D（案）の通りの要請内容とした。

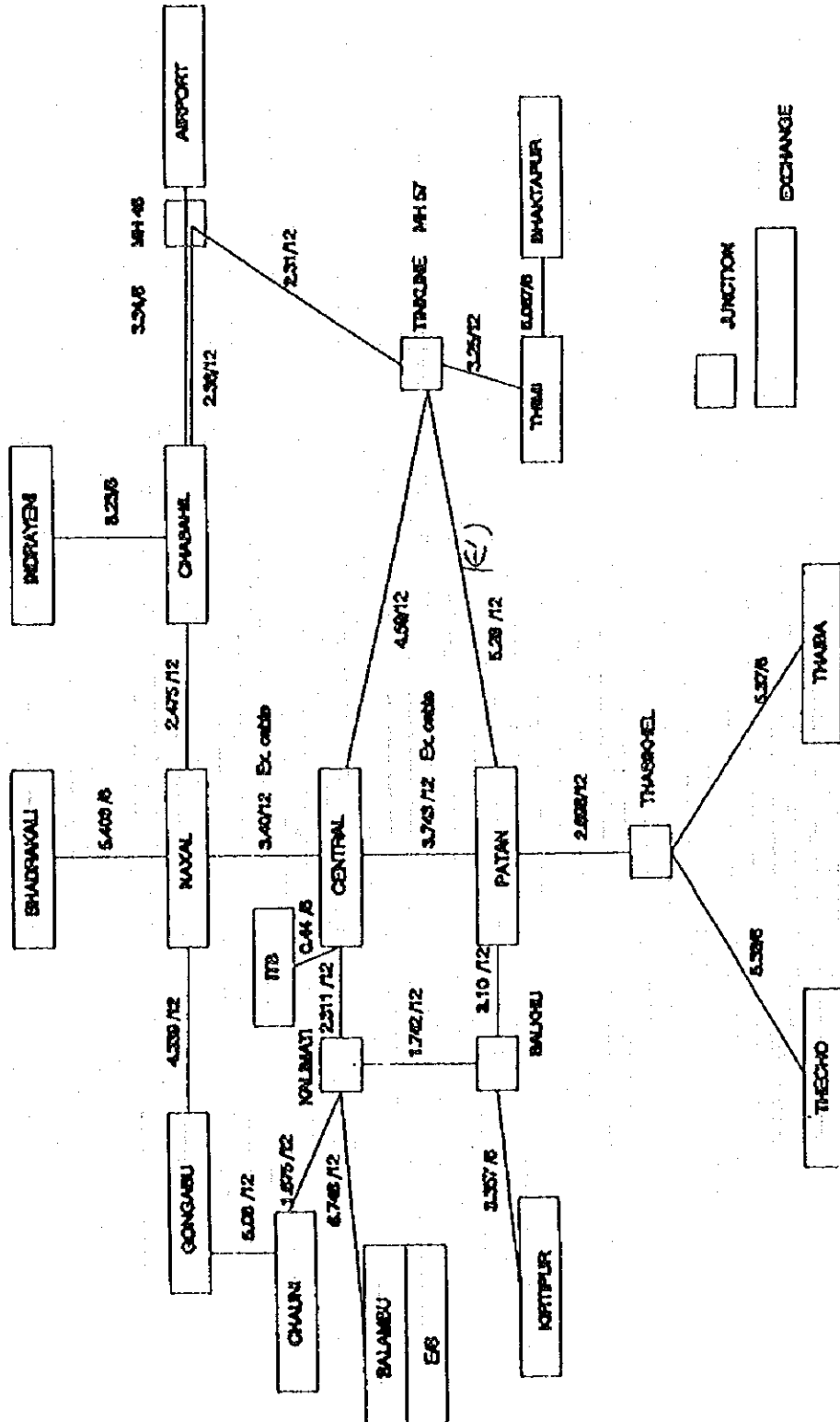
- (1) N T C は、1983年のJICA F/S レポートを踏まえ、1988年、1993年に日本の無償資金協力で完成した伝送路を利用し、その末端に小型交換機を取り付け、郡庁バールの町の電話需要を満たそうとしている。実際に、前無償案件4件の内 10ヶ所はすでに導入され、12ヶ所は機材調達中、16ヶ所は予算申請中である。  
(Bidur 現状2. の通り) 以上の状況に鑑みて、本計画対象地区でもその需要に見合うべくネパールN T C が1998年より5ヶ年計画で小型交換機を導入するという発言は十分に真実性のあるものであり、その場合 世銀のMARTS システムでは対応できず、本計画の伝送設備が必要となる。
- (2) 元来、ネパールの地方通信については、日本が伝送路にて郡庁バールの町を、世銀はMARTS システムによってさらに地方の町をカバーすることとなっており、その基本構想については、何ら世銀と日本が重複するものではない。01、08、09地区について、日本の設備配備より世銀が計画を開始したため、ネパール側は緊急的に郡庁バールの町へMARTSを配置し、日本の計画が開始された後には、MARTSを他の町へ転用する(容易に転用可能)計画である。
- (3) ネパール側によれば世銀は、MARTS システムをどこの町に導入するかという点については、ネパール側に任されているとの事である。
- (4) 世銀が(3)の通りである事を確認した。



— PROPOSED MAIN TRANSMISSION ROUTES 140MHz  
 - - - - - SMALL CAPACITY SYSTEMS 208 (or 34) MHz  
 ○ TERMINAL STATION  
 ● REPEATER STATION

File		INSTAVDFELLESARKIV.INR1-33212.DRW		Rev.	
Project		THE FIFTH TELECOMMUNICATIONS PROJECT IN NEPAL		Title	
		CONTACT No. NEP-ND-F-1			
Date		94.10.13.		Rev	B
No.		I-33212		Page	1 of 1
Author		ABB Netra AS			
Rev		POC No	Reason for issue	Date	Prep
6	A0230	UPGRADE AFTER SURVEY		94.11.03.	KEL
A	—	FIRST ISSUE		93.11.17.	KEL

### KATHMANDU VALLEY OPTICAL FIBRE NETWORK (DISTANCES IN KM / NO OF FIBRES)



Trans. Cap.: 140 Mb/s

**NEPAL TELECOMMUNICATIONS CORPORATION**  
**RURAL EXCHANGE PROJECT**  
**PHASE-I**

**DETAILS OF RURAL PCO STATION**

S. No.	Exchange	Spare PCM	PCO site	Link Capacit	POWER SUPPLY SYSTEM						Total Power Consumption	Power saved if prim. mux and sig. conv removed	Eqpt. Room/shelter (m x m)
					System	EG/AVR (KVA)	Rectific (A)	Solar No. of arrays	Solar peak output (watt)	Battery (AHxNo. of banks)			
1	Bhadrapur	8	Taplejung	4 MB/s	Solar		+	15	3060	1200x3	304	210	3x4 B
2	Biratnagar	2+	Khandbari	4 MB/s	Solar		+	18	3672	1350x3	376	210	3x4 B
3	Rajbiraj	2	Gaighat	4 MB/s	AC+S	-/1.5	10Ax2	5	1020	900x2	175	95	3x3 B
4	Kathmandu	?	Dhading	2 MB/s	Solar		++	10	1828	1000x2	249	191	3x5 +B
5	Pokhara	0+4	Gorkha	2 MB/s	Solar		+	11	2010.8	1200x2	251.4	210	3x5 B*
6			Baglung	2 MB/s	Solar		+	15	2742	800x4	326.4	210	3x3.6 B
7	Bhairahawa	0+4	Gulmi Tamgha	2 MB/s	Solar		+	10	1828	1000x2	209	131	3x3.7 +
8	Nepalgunj	1	Gulariya	4 MB/s	AC+S	-/5	20Ax2	14	2559.2	1200x2	374.4	210	2x2 +B
9	Dhangadhi	1+5	Baitadi	2 MB/s	AC+S	-/5	15Ax2	11	2010.8	800x2	293.4	210	3x5 S
10			Darchula	2 MB/s	Solar		+	12	2193.6	800x3	251.4	210	3x5 +AS

**NOTE:**

- +B : PCO's building where the exchange is to be installed
- B : Existing Building with the transmission equipment
- B\* : Rented PCO Building where the exchange has to be installed
- S : Shelter with PCO
- N : New construction necessary
- +
- ++ : City supply available for limited hours only
- AS : Aluminium Shelter

**NEPAL TELECOMMUNICATIONS CORPORATION**  
**RURAL EXCHANGE PROJECT**  
PHASE-II

**DETAILS OF RURAL PCO STATION**

S. No.	Exchange	Spare PCM	PCO site	Link Capacit	POWER SUPPLY SYSTEM						Total Power Consumption	Power saved if prim. mux and sig. conv removed	Eqpt. Room/shelter (m x m)
					System	EG/AVR (KVA)	Rectific (A)	Solar No. of arrays	Solar peak output (watt)	Battery (AHxNo. of banks)			
1	Bhadrapur	8	Phidim	4 MB/s	AC+S		15Ax2	9	1836	680x2	279	190	3x4 B
2	Biratnagar	2+	Terhathum	4 MB/s	Solar		+	15	3060	1200x3	306	210	3x5 B
3	Rajbiraj	2	Okhaldhunga	4 MB/s	Solar		++	13	2652	3600x3	269	95	3x3 B
4	Janakpur	0+4	Sindhulimadi	4 MB/s	Solar		+	10	1828	1000x2	224	171	2x2 N
5	Pokhara	0+4	Syangja	2 MB/s	Solar		+	11	2010.8	1200x2	311.4	270	2x2 +B
6			Kusma	4 MB/s	Solar		+	17	3107.6	1200x3	354.4	210	2x2 +B
7	Bhairahawa	0+4	Sandhikharka	2 MB/s	Solar		+	10	1828	1000x2	249	131	3x5 +B
8			Parasi	2 MB/s	AC/EG	10/	20Ax2			90X2	238	131	3x5 +B
9	Nepalgunj	1	Rajapur	4 MB/s	Solar		+	13	2376.4	1200x3	348.4	210	2x2 +B
10	Dhangadhi	1+5	Dadeldhura	2 MB/s	AC+S	-/5	20Ax2	20	3656	1600x2	466.4	210	2x2 +B
11			Tikapur	4 MB/s	Solar		+	12	2193.6	1600x2	318.4	210	3x5 +B

**NOTE:**

- +B PCO's Building where the exchange is to be installed
- B Existing Building with the transmission equipment
- B\* Rented PCO building where the exchange has to be installed
- S Shelter with PCO
- N New construction necessary
- + City supply available
- ++ City supply available for limited hours only
- AS Aluminium Shelter



**NEPAL TELECOMMUNICATIONS CORPORATION**  
**RURAL EXCHANGE PROJECT**  
**PHASE-III**

**DETAILS OF RURAL PCO STATION**

S. No.	Exchange	Spare PCM	PCO site	Link Capacity	POWER SUPPLY SYSTEM						Total Power Consumption	Power saved if prim. mux and sig.conv removed	Eqpt. Room/shelter (m x m)
					System	EG/AVR (KVA)	Rectifie (A)	Solar No. of arrays	Solar peak output (watt)	Battery (AHxNo. of banks)			
1	Biratnagar	2+	Bhojpur	4 MB/s	Solar		+	15	3060	1200x3	304	210	3x5 B
2	Rajbiraj	2	Diktel	4 MB/s	Solar		*	9	1836	2400x2	175	95#	3x4 B
3			Salleri	4 MB/s	Solar		+	9	1836	2400x2	175	95	3x4 B
4	Janakpur	0+4	Ramechhap	2 MB/s	Solar		++	13	2376.4	800x4	273	171	2x2 N
5			Charikot	2 MB/s	Solar		+	10	1828	1000x2	224	171	2x2 +B
6	Kathmandu	7	Rasuwa	4 MB/s	Solar			6	1224	700X2	175	95	3X4 B
7	Pokhara	0+4	Besisahar	4 MB/s	Solar		*	15	2742	1000x3	316.4	270	3x5 +B
8			Beni	2 MB/s	Solar		+	15	2742	1000x3	316.4	270	3x5 S
9	Bhairahawa	0+4	Lumbini	32 MB/s									N
10	Dhangadhi	1+5	Achham	4 MB/s	Solar				3200	700x5	306	150	4x4 B

**NOTE:**

- +B PCO's Building where the exchange is to be installed
- B Existing Building with the transmission equipment
- B\* Rented PCO building where the exchange has to be installed
- S Shelter with PCO
- N New construction necessary
- \* City supply not available
- + City supply available
- ++ City supply available for limited hours only
- AS Aluminium Shelter
- # Provision of Solar Controller Capacity for additional 75 watt

NEPAL TELECOMMUNICATIONS CORPORATION  
SINGH DURBAR

PROPOSED ESTIMATED CASH BUDGET FOR 2051/52 (1994/95)

(IN THOUSAND)

ACTUAL F.Y. 049/50 (1992/93)	DESCRIPTION	PROPOSED F.Y. 050/51 (1993/1994)	REVISED F.Y. 050/51 (1993/1994)	PROPOSED F.Y. 051/52 (1994/1985)
	<b>1. OPERATING EXPENSES</b>			
255,395	(A) EXPENSES REGULAR/DEVELOPMENT	286,766	291,062	334,526
0	(B) MAINTENANCE BUILDING/EQUIPMENT	29,034		17,500
0	(C) UNALLOCATED/MISCELLANEOUS	30,077		81,350
0	(D) PROBABLE EXPENSES DUE TO EXCHANGE FLUCTUATION & PRICE INCREASE	5,000		5,000
255,395	<b>TOTAL OPERATING EXPENSES</b>	350,877	291,062	438,376
	<b>2. CONSTRUCTION &amp; PURCHASES:-</b>			
	<b>2.1 GENERAL PURCHASE</b>			
8,162	(A) EQUIPMENT/TOOLS	49,841	6,803	101,655
9,777	(B) SPACE PARTS	111,196	34,291	142,203
3,656	(C) FURNITURE/HEATING/VEHICALS	19,511	6,180	16,320
10,320	(D) OFFICE EQUIPMENTS	4,997	3,462	17,911
31,915	<b>SUB TOTAL</b>	185,545	50,736	278,089
	<b>2.2 PROJECTS PURCHASE/CONSTRUCTION</b>			
32,581	(A) PURCHASE/INSTALATION	266,525	179,564	251,308
5,381	(B) ACQUISITION OF LAND	11,650	6,602	45,900
25,595	(C) CIVIL CONSTRUCTION	103,349	34,458	132,970
63,557	<b>SUB TOTAL</b>	381,524	220,624	430,178
95,472	<b>TOTAL PURCHASE/CONSTRUCTION</b>	567,069	271,360	708,267
	<b>3. DISBURSMENT OF LIABILITIES</b>			
39,644	(A) INTER ADMINISTRATIONS	46,000	32,500	47,500
644,416	(B) AMORTIZATION	360,000	394,877	602,000
121,070	(C) INTREST ON LOAN/SUBS DEPOSIT	225,000	112,198	266,000
217,077	(D) INCOME TAX/PROPERTY TAX	428,800	449,170	600,000
7,801	(E) BONUS	38,000	36,800	70,000
10,900	(F) PENSION/GRATUITY	11,360	6,439	11,966
799	(G) OTHER PAYMENTS	10,000	1,429	10,000
9,463	(H) DIVIDENDS	20,000	9,463	20,000
7,500	(I) RETAINIION OF B.T.M.C.	40,000	0	0
1,058,670	<b>TOTAL DISBURSMENT OF LIABILITIES</b>	1,179,160	1,042,876	1,627,466
	<b>4. INVESTMENTS</b>			
105,000	(A) SINKING FUND & INVESTMENT	105,000	54,411	100,000
0	(B) SHARE IN INTELSAT	50,000	0	0
19,026	(C) STAFF LOAN	20,000	20,000	20,000
124,026	<b>TOTAL INVESTMENTS</b>	175,000	74,411	120,000
1,533,563	<b>TOTAL APPLICATIONS (1+2+3+4)</b>	2,272,106	1,679,709	2,894,109

SUMMARY OF DEVELOPMENT BUDGET 2051/52

NEPAL TELECOMMUNICATION CORPORATION

SUMMARY OF DEVELOPMENT CAPITAL BUDGET

PROPOSED BUDGET OF FISCAL YEAR 2051/52 (1994/95)

IN THOUSAND RUPIES

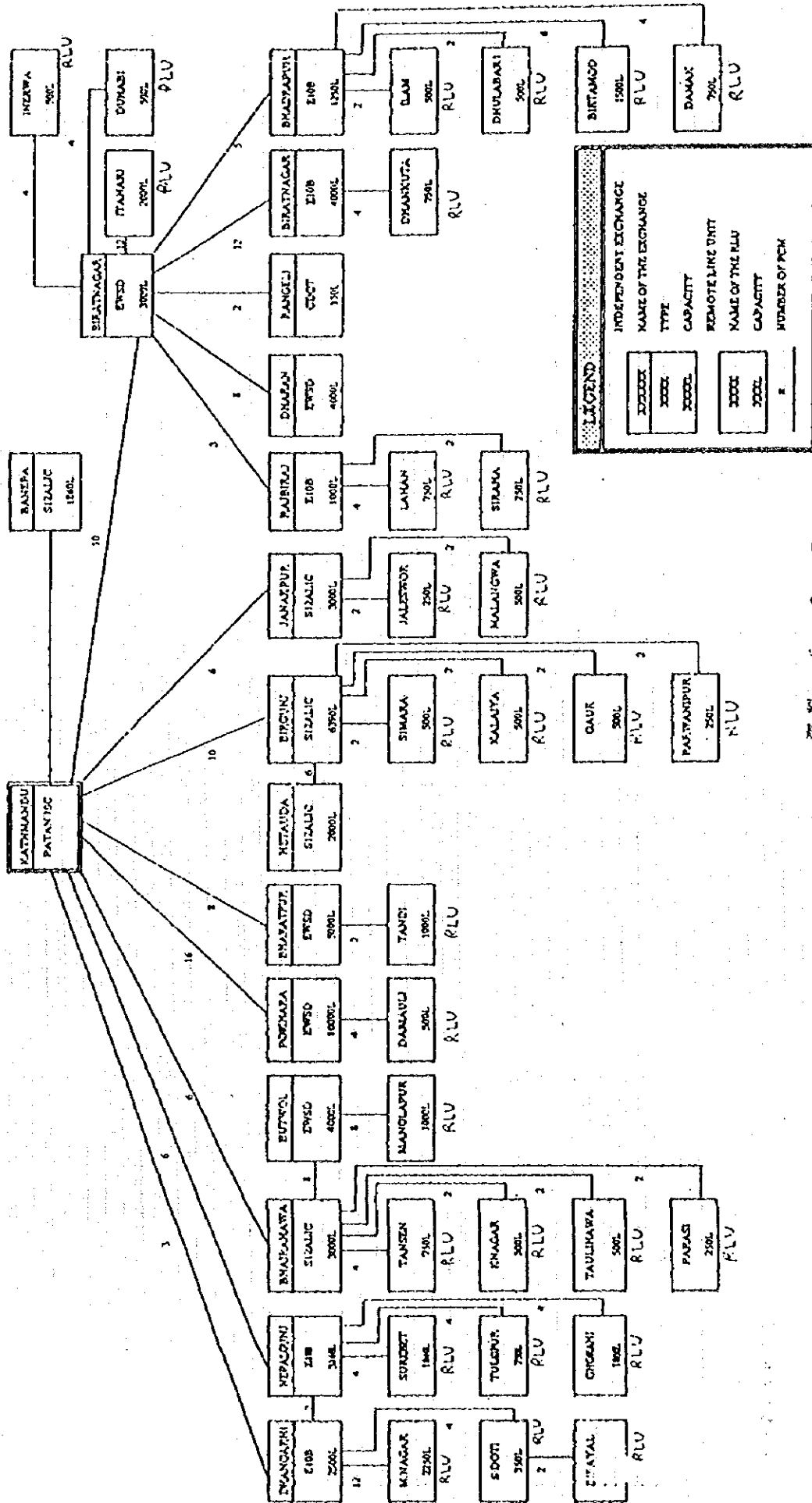
S.N.	DESCRIPTION	INTERNAL SOURCES				EXTERNAL SOURCES	GRAND TOTAL
		0101 LAND	0102 BUILDING	0103 EQUIPMENT	TOTAL		
1	MAATS PROJECT(WORLD BANK)	500	6,000	4,300	10,800	140,394	151,194
2	MAIN TRANSMISSION LINK PROJECT(NDF)	0	2,200	4,200	6,400	195,725	368,525
3	EASTERN REGION LOCAL TELEPHONE PROJECT (WORLD BANK,DENMARK,NTC)	2,000	1,710	2,129	5,839	27,194	33,033
4	CENTRAL REGION LOCAL TELEPHONE PROJECT (WORLD BANK,DENMARK,BELGIUM,NTC)	0	60,100	76,299	136,399	752,049	888,448
5	WESTERN REGION LOCAL TELEPHONE PROJECT (WORLD BANK,DENMARK,NTC)	0	1,900	21,350	23,250	96,876	120,126
6	MID WESTERN REGION LOCAL TELEPHONE PROJECT (WORLD BANK,DENMARK,NTC)	0	0	680	680	26,458	27,138
7	FAR WESTERN REGION LOCAL TELEPHONE PROJECT (WORLD BANK,DENMARK,NTC)	0	0	50	50	8,826	8,876
8	EARTH STATION PROJECT (WORLD BANK,NTC)	0	4,500	500	5,000	161,704	166,704
9	OFFICE & RESIDENCE BUILDING PROJECT (NTC)	13,400	25,560	0	39,960	0	39,960
10	RURAL TELEPHONE EXCHANGE PROJECT (WORLD BANK,DENIDA,NTC)	500	5,000	0	5,500	6,774	12,274
	SUB TOTAL:-	16,400	107,970	109,508	233,878	1,416,000	1,649,878
	GENERAL DEVELOPMENT BUDGET(NTC)	29,500	25,000	141,800	196,300	0	196,300
		45,900	132,970	251,308	430,178	1,416,000	1,846,178

International Fund Aid (1982-1987)

(UNIT): IN MILLION

Agency	Aid Amount	Purpose/Object
Belgium State	BF. 100 (JY27)	Exchange Equipment
Nordic Development Fund	SDR 4.8 (JY670)	Main Transmission Link
Finish Government	FM 18.60 (JY74)	Optical Fibre System
Danish Government (DANIDA)	DRR 145 (JY742)	Network Material
IDA (World Bank)	SDR 40.1 (JY5,500)	Exchange Equipment Earth Station, Network, Data, Vehicles, Office Equipments, Transmission
JICA	JY1,685	Rural Transmission Equipment

NATIONAL NETWORK DIAGRAM (7th PHASE)  
(AFTER EXTENSION OF 41,000 LINES)



NEPAL TELECOMMUNICATION CORPORATION  
TRANSMISSION PROJECT IMPLEMENTATION DEPARTMENT  
INSTALLATION STATUS OF MARTS

Date: 2052/02/11  
Update: 28 th MAY, 1995

Status as of MAY 25 1995(2052)

1) SYSTEM: KATHMANDU (Year: 2047-2049) (NEC. 2.4GHZ BAND)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Kathmandu	Kathmandu Base	Completed	Completed	438			
"	"	Sankhu	Completed	1	32	23		
"	"	Sundarjal	Completed	1	16	13		
"	"	Kapan	Completed	1	8	3		
"	"	Budhanilkantha	Completed	1	40	40		
"	"	Jokha-Saraswati	Completed	1	8	5		
"	"	Raukot-Bhimdhunga	Completed	1	8	5		
"	"	Thankot	Completed	1	40	33		
"	"	Balambu	Completed	1	8	8		
"	"	Champadevi	Completed	1	8	7		
"	"	Pharping	Completed	1	32	26		
"	"	Hattiban	Completed	1	8	7		
"	"	Kakani	Completed	1	16	7		
2	Lalitpur	Godawari	Completed	1	24	22		
"	"	Insiya	Completed	1	24	24		
"	"	Lubhu	Completed	1	24	24		
"	"	Dhapakhet	Completed	1	8	3		
"	"	Chapagaon	Completed	1	32	32		
"	"	Salnu	Completed	1	8	6		
3	Bhaktapur	Nagarkot Repeater	Completed	1	8	7		
"	"	Nagarkot Bazar	Completed	1	24	17		
"	"	Kharipati	Completed	1	8	5		
"	"	Changuarayan	Completed	1	8	4		
"	"	Duwakot	Completed	1	8	1		
"	"	Dadhikot	Completed	1	8	7		
"	"	Gundin	Completed	1	8	4		
4	Sindhupalchok	Chautara	Completed	1	8	8		
		Sub-Total		26	424	337		

2) SYSTEM: DHANGADI (YEAR 2047-2049) (ALCATEL SEL 1.5GHZ BAND)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Kailali	Dhangadi Base	Completed	Completed	112			
"	"	Bureola Repeater	Completed	Completed	4			
"	"	Attariya	Completed	1	24	23		
"	"	Godawari	Completed	1	8	7		
"	"	Shripur-Kanshera	Completed	1	4	4		
"	"	Chauraha	Completed	1	4	4		
"	"	Masuniya	Completed	1	4	4		
"	"	Pahatmanpur	Completed	1	4	3		
"	"	Suklabad	Completed	1	4	4		
"	"	Hasuliya	Completed	1	8	7		
"	"	Phulbari	Completed	1	4	1		
2	Kanchanpur	Kilsapur	Completed	1	4	2		
"	"	Jhallari	Completed	1	4	1		
"	"	Dodhara	Completed	1	8	7		
"	"	Kalkatta	Completed	1	4	2		
"	"	Shripur-Bedaul	Completed	1	12	8		
"	"	Trishuvanbasi	Completed	3	8	8		
"	"	*Reserved Lines			14	11	One Sixty Line.	
		Sub-Total		15	108	83		

## 3) SYSTEM: BIRATNAGAR

(Year 2049-2050)

Page 2

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/ Proposed	Line Distributed	Possible Extension	Remarks
1	Merang	Biratnagar Base	Completed	Completed	352			
"	"	Belbari	Completed	1	16	16		
"	"	Kardja	Completed	1	8	5		
"	"	Kerbari	Completed	1	8	6		
"	"	Letang	Completed	1	8	8		
"	"	Panbari	Completed	1	24	7		
"	"	Ulabari	Completed	1	24	22		
2	Sunsati	Hartnagar	Completed	1	8	7		
"	"	Jhumka	Completed	1	24	23		
"	"	Chakraghatti-Mahendranagar	Completed	1	8	7		
3	Jhapa	Danok Repeater	Completed	Completed				
"	"	Bhadrapur Repeater	Completed	Completed				
"	"	Shivgunj	Completed	1	8	8		
"	"	Jhujhūe	Completed	1	8	4		
"	"	Gaurigunj	Completed	1	8	5		
"	"	Gauradaha	Completed	1	8	8		
"	"	Sanshore	Completed	1	8	8		
"	"	Dhulabari	Completed	1	40	37		
"	"	Kakarbhitta	Completed	1	24	24		
"	"	Birtamod	Completed	1	40	40		
"	"	Budhabate	Completed	1	8	7		
		Sub Total		15	280	245		

## 4) SYSTEM: JANAKPUR (Year 2049-2050)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/ Proposed	Line Distributed	Possible Extension	Remarks
1	Dhanusha	Janakpur Base	Completed	Completed	416			
"	"	Dhakbar	Completed	1	8	6		
"	"	Sakhuwa-Mahendranagar	Completed	1	32	7		
"	"	Sabaha	Completed	1	8	3		
"	"	Yadukuba	Completed	1	8	1		
"	"	Khajurichana	Completed	1	8	1		
"	"	Inarawa	Completed	1	8	1		
"	"	Nagarayan	Completed	1	8	1		
"	"	Dhanusadhani	Completed	Proposed	8			
"	"	Godar	Completed	Proposed	8			
2	Mahottari	Matihani	Completed	1	40	10		
"	"	Balawa	Completed	1	8	2		
"	"	Loharpatti	Completed	1	8	4		
"	"	Gausaha	Completed	1	16	2		1 VIII
"	"	Bardibas	Completed	1	8	4		1 VIII
"	"	Pipara	Completed	1	40	9		
"	"	Manaharakatti	Completed	Proposed	8			
"	"	Sanis	Completed	Proposed	8			
3	Sarlahi	Narayandanda Repeater	Completed	Completed				
"	"	Barhathawa	Completed	1	40	1		
"	"	Hariwon	Completed	1	16	2		
"	"	Lalbandi	Completed	1	16	7		
"	"	Ishwari-Bebas	Completed	1	16	4		1 VIII
"	"	Nawalpur	Completed	1	8	1		
"	"	Haripurawa	Completed	Proposed	8			
"	"	Dumarlya	Completed	Proposed	8			
4	Siraha	Siraha Repeater	Completed	Completed				
"	"	Mirchlya	Completed	1	32	6		
"	"	Sukbipur	Completed	1	8	1		
"	"	Golbarar	Completed	1	8	5		
"	"	Thandi	Completed	1	8	2		
"	"	Kalyanpur	Completed	Proposed	8			
"	"	Kanchhibazar	Completed	Proposed	8			
"	"	Karkati	Add Demand					
		Sub total		22	416	80		

NOTE: '1' mentioned in "INSTALLATION STATUS" column means installation completed/ready for distribution.

## 5) SYSTEM: BHARATPUR (Year 2049 - 2050)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Chitwan	Bharatpur Base	Completed	Completed	1160			
	"	Rampar	Completed	1	12	9		
	"	Chanauli	Completed	1	5	7		
	"	Parsadhap	Completed	1	12	5		
	"	Ghatnagar	Completed	1	12	11		
	"	Pathani	Completed	1	8	7		
	"	Madi-Barowa	Completed	1	8	8		
	"	Sauraha	Completed	1	12	7		
	"	Parsa-Khababani	Completed	1	12	12		
	"	Bhandara	Completed	1	12	12		
2	Nawalparad	Gandakot Repeater	Completed	Completed	4			
	"	Rajapur	Completed	1	8	8		
	"	Pragatinagar	Completed	1	8	8		
	"	* Reserved lines			(40)	(1)		One Service Line
		Sub Total		11	116	94		

## 6) SYSTEM: NEPALGUNJ (Year 2049 - 2050)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Banke	Nepalgunj Base	Completed	Completed	1160			
	"	Khajura	Completed	1	12	11		
	"	Kobalpur	Completed	1	12	11		
	"	Sainik	Completed	1	4	2		
	"	Bhojbhawanpur	Completed	1	8	2		
2	Parsiya	Gulariya Repeater	Completed	Completed				
	"	Rajapur Repeater	Completed	Completed				
	"	Mahapokhar	Completed	1	8	6		
	"	Bhurigaon	Completed	1	8	6		
	"	Magaragadhi	Completed	1	4	3		1 VHF
	"	Taratal	Completed	1	4	3		1
	"	Baganaha	Completed	1	4	2		1
	"	Pashupatinagar	Completed	1	4	1		
3	Kailali	Sattibazar	Completed	1	12	12		
	"	* Reserved lines	Completed		(80)	(1)		One Service Line
		Sub Total		11	80	59		

NOTE: "1" mentioned in "INSTALLATION STATUS" column means installation completed ready for distribution.



7) SYSTEM: TULSI PUR

(Year 2049 - 2050)

(ALCATEL SEL, 1.5 GHz BAND)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks	
1	Daug	Tulsi Pur Base	Completed	Completed	(160)				
		Rajakot Repeater	Completed	Completed	4	1		Test line	
		Shorghans Repeater	Completed	Completed	4	1		Test line	
		Manspur-Bijauri	Completed	1	8	6	4		
		Bajbundi	Completed	1	4	3			
		Bagar	Completed	1	4	3			
		Gadhawa	Completed	1	4	1			
		Kabrie	Completed	1	4	1			
2	Banke	Lamahi	Completed	1	4	4	8		
		Lalmatya	Completed	1	4	4	4	1 VHF	
3	Pyuthan	Kusum	Completed	1	4	1			
		Svargadwari Repeater	Completed	1	4	1			
4	Rolpa	Mabaran Repeater	Completed	1	4	4		1 VHF	
		Pyuthan Khalanga	Completed	1	12	7			
		Bhulagi	Completed	1	4	3			
		Nayagaon	Completed	1	4	3		1 VHF	
		Bijubar	Completed	1	4	4	4	4	
		Bagdola	Completed	1	4	4	4	4	TEST LINE
5	Rokom	Ratmata Repeater	Completed	Completed	4	1		TEST LINE	
		Libang	Completed	1	12	10			
		Hokeri	Completed	1	4	2			
		Subchaur	Completed	1	4	2		1 VHF	
		Gumchal	Completed	1	4	1			
6	Jajarkot	Ghetma Repeater	Completed	Completed					
		Chaurjahi	Completed	1	4	3	6		
		Musikot Khalanga	Completed	1	12	10			
7	Salyan	Salkot Repeater	Completed	1	4	2		2 VHF	
		Jajarkot Khalanga	Completed	1	12	11			
		Dashera	Completed	1	4	1			
		Dalli	Completed	1	4	2			
8	Salyan	Nyakwada	Completed						
		Saunlyapani Repeater	Completed	Completed					
		Salyan Khalanga	Completed	1	12	11			
9	Salyan	Kapurkot	Completed	1	4	4		One VHF-Strala	
		Thamare	Completed	1	4	2			
Sub-Total				28	160	112			

8) SYSTEM: BHADRAPUR

(Year 2050 - 2051)

(ALCATEL SEL, 1.5 GHz BAND)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Jhapa	Bhadrapur Base	Completed	Completed	(160)			
2	Bam	Aaltbare Repeater	Completed	1	4	2		
		Ilata Repeater	Completed	Completed				
		Pachupatisagar	Completed	1	8	7		
		Phikkal	Completed	1	4	4		
		Chisapani	Completed	1	4	1		
		Jamunabazar	Completed	1	4	1		
		Mangalbare	Completed	1	8	2		
		Sukrabare(Daurabari)	Completed	1	4	1		
3	Panchthari	Silute Repeater	Completed	1	4	3		Two VHF
		Trithuvannagar/Yashok	Completed	1	8	2		One VHF
		Amapur	Completed	1	4	1		
4	Terathum	Ravibazar	Completed	1	8	1		
		Basantpur	Completed	1	8	7		
5	Taplejung	Sankranti Bazar	Completed	1	8	1		
		Taplejung Repeater	Completed	1	4	1		VHF
		Jishan	Completed	1	4	1		
		Phulbari	Completed	1	4	1		
		Khekmin	Completed	1	4	1		
Sub-Total				17	92	37		

NOTE: '1' mentioned in "INSTALLATION STATUS" column means installation completed/ready for distribution.

9) SYSTEM: POKHARA (Year 2050-2051)

(ALCATEL SEL, 1.5 GHz BAND)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Kaski	Pokhara Base	Completed	Completed	(160)			
"	"	Naudanda	Completed	1	1	2		2 VHF
"	"	Shawa	Completed	1	1	1		
2	Tanahu	Dagani Repeater	Completed	Completed	4	1		1 VHF
"	"	Jalbhansyang Repeater	Completed	Completed	4			
"	"	Bhimad	Completed	1	4	1		1 VHF
"	"	Dulegaunda	Completed	1	4	1		
"	"	Sepabagalucha	Completed	1	4			
"	"	Dumre	Completed	1	8	1		
"	"	Anbukhahani	Completed	1	8	1		
3	Gorkha	Gorkha Repeater	Completed	1	4			1 VHF
"	"	Kashigaon Repeater	Completed	Completed	4	1		
"	"	Palungtar	Completed	1	4			
"	"	Terhaklo	Completed	1	8			
"	"	Khoplang	Completed	1	4			
"	"	Anppal	Completed	1	4	1		
"	"	Arughat	Completed	1	4			
"	"	Shudibas	Completed	Proposed	4			
4	Lamjung	Bhijupising Repeater	Completed	Completed				
"	"	Udip Repeater	Completed	Completed				
"	"	Sundarbar	Completed	1	4	1		
"	"	Bhotewodar	Completed	1	4			
"	"	Chhiriiahar	Completed	1	4			
"	"	Kluudi	Completed	1	4	1		
"	"	Bahundanda	Completed	1	4	1		
"	"	Duradanda	Completed	1	4	1		
"	"	Gaunda	Completed	1	4	1		
5	Morang	Bagarchhap Repeater	Completed	Completed				
"	"	Dharapani	Completed	Proposed	4			
"	"	Chante	Completed	1	12	5		
6	Chitawan	Muglu	Completed	1	4			
8	Svange	Kohrabatha	Completed	1	4	1		
		Sub Total		23	124	22		

10) SYSTEM: SURKHET (Year 2050-2051)

(ALCATEL SEL, 1.5 GHz BAND)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Surkhet	Surkhet Base	Completed	Completed	(160)			
"	"	Chante Repeater	Completed	Completed	4	4		3 VHF
"	"	Nigapani Repeater	Completed	Completed	4			
"	"	Chhinchhu	Completed	1	8	1		
"	"	Guni-Shivanagar	Completed	1	4	2		
2	Dalekh	Dalekh Repeater	Completed	1	12	5		3 VHF
"	"	Raniratta Repeater	Completed	1	4	4		2 VHF
"	"	Dudu	Completed	1	4	1		
"	"	Dandimadi	Completed	1	4	1		
"	"	Dungeshwer	Completed	Proposed	4			
"	"	Lakaudra	Completed	1	4	1		
3	Kailkot	Bhastalaga Repeater	Completed	Completed	4			
"	"	Khadachakra	Completed	1	12	11		
"	"	Sukathra	Completed	1	4	1		
"	"	Syona	Completed	1	4	1		
4	Arbham	Vinayak	Completed	1	4	1		
5	Junla	Malthapla Repeater	Completed	Completed	1			
"	"	Chhinaalekh Repeater	Completed	Completed	4			
"	"	Junla	Completed	1	12	12		
"	"	Narakot	Completed	Proposed	4			
"	"	Itapalpaon	Completed	1	4			
"	"	Talapani	Completed	1	4			
		Sub Total		14	112	45		

## 11) SYSTEM: BIRGUNJ

(Year 2020 - 2021)

(ALCATEL SEL, 1.5GHz BMD) Page 6

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Parsa	Bhgunj Base	Completed	Completed	(25)			
"	"	Langadi	Completed	1	8	1	8	
"	"	Pokhariya	Completed	1	8	3	8	
"	"	Bhlova	Completed	1	8	1	8	
"	"	Sugauli	Completed	1	8	1		
2	Bara	Chutiya Repeater	Completed	Completed				
"	"	Kolbi	Completed	1	16	1		
"	"	Golaganj	Completed	1	8	1	8	
"	"	Nijgadh	Completed	1	24	1		
"	"	Amkkgaul	Completed	1	24	3		
"	"	Parwanipur	Completed	1	40	10		
3	Raithat	Dhlyal Repeater	Completed	Completed				
"	"	Chaudraingapur	Completed	1	40	1		
"	"	Katabariya	Completed	1	8	3	8	
"	"	Ganga pipara	Completed	Proposed	8			
"	"	Samarpur	Completed	1	8			
4	Makawanpur	Simhanjyang Repeater	Completed	Completed				
"	"	Manahari	Completed	1	16	1		
"	"	Bhainsa	Completed	Proposed	8			
"	"	Hathiya	Completed	1	8	1		
"	"	Palung	Completed	1	16	1		
"	"	Taukbel	Completed	1	16	2		
		Sub Total		16	252	31		

## 12) SYSTEM: DADEL DHURA

(Year 051 - 52)

(ALCATEL SEL, 1.5GHz BMD)

SN	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Dadeldhura	Dadeldhura Base	Completed	Completed	(120)			
"	"	Bhageswar Repeater	Completed	Completed				
"	"	Jogbuda	Completed	1	8	1		
"	"	Pokhara	Completed	1	4	1		
"	"	Ropal	Completed	Proposed	4			
2	Baitadi	Hat	Completed	Proposed	4			
"	"	Kesharpur	Completed	1	4			
"	"	Jbulaghat	Completed	Proposed	4			
"	"	Patan	Completed	1	4			
"	"	Ganjarl	Completed	Proposed	4			
"	"	Khodpe	Completed	1	4	1		
"	"	Bittapakha Repeater	Completed	Completed				
"	"	Palebar Repeater	Completed	Completed				
"	"	Shreekot/Khochhekkh	Completed	1	4			
3	Darchula	Shankherpur	Completed	Proposed	4			
"	"	Huti	Completed	Proposed	4			
"	"	Sipi	Completed	Proposed	4			
"	"	Gokuleswar	Completed	Proposed	4			
"	"	Balsikhar Repeater	Completed	Proposed				
"	"	Kainoda Repeater	Completed	Completed				
"	"	Khandeswar	Completed	Proposed	4			
4	Doti	Chaurbajrap	Completed	Completed				
"	"	Budar	Completed	1	4			
"	"	Khadaha	Completed	Proposed	4			
"	"	Rawalkatte	Completed	Proposed	4			
5	Bajhang	Pipalhet	Completed	Proposed	4			
"	"	Banjh	Completed	Proposed	4			
"	"	Byand	Completed	Proposed	4			
"	"	Kothshar	Completed	Proposed	4			
"	"	Manjhigam	Completed	Proposed	4			
"	"	Chinpur	Completed	Proposed	12			
"	"	Chaudbari	Completed	Proposed	4			
"	"	Nedar Repeater	Completed	Proposed				
"	"	Bantalekh Repeater	Completed	Proposed				
		Sub Total		7	116	3		

NOTE: '1' mentioned in "INSTALLATION STATUS" column means installation completed ready for distribution.

## 13) SYSTEM: DUTI

(Year 2051 - 2052)

(ALCATEL SEL, 1.5 GHz BAND) Page 1

S/N	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Duti	Duti Base	Completed	Completed	120			
		Mauwa	Completed	Proposed	4			
		Chaukada	Completed	Proposed	4			
		Sijadagan	Completed	Proposed	4			
2	Achham	Studi Repeater	Completed	Completed				
		Rayapata	Completed		4	1		
		Gahilab/Chourpati	Completed		4			
		Shreekot/Marko	Completed		4			
		Mangalsen Repeater	Completed	Completed				
		Mildrolichh Repeater	Completed	Completed				
3	Bajura	Javagadh			4			
		Mariadi	Completed		12	10		
		Dogri	Completed	Proposed	4			
		Tate	Completed		4			
		Kolti	Unkadbk					
		Sub Total			6	48	11	

## 14) SYSTEM: BIDUR

(Year 2051 - 2052)

(ALCATEL SEL, 1.5 GHz BAND)

S/N	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks	
1	Kathmandu	Base at KTM		Completed					
		Lalitpur	Completed		8	5			
		Nuwakot	Completed		4				
			Kakani repeater	Completed		4	1		
			Nuwakot repeater	Completed	Completed	4			
			Nepanchour repeater	Completed	Completed	4	3		
			Choughada	Completed		4			
			Bhadratar	Completed		4	1		
			Devighat	Completed		4	1		
		2	Dhading	Khanikhola	Completed		8		
Hapachour repeater	Completed				4	2			
Kampur	Completed				4				
Gajuli	Completed				12	1			
Makhu	Completed				8				
Maldi	Completed				4				
Balrai	Completed				4				
3	Rasuwa	Katunje (odke)	Completed		4				
		Betrawati	Completed		4				
		Kalikasthan	Completed		4				
		Sub Total			16	92	14		

## 15) SYSTEM: BANEPA

(Year 2051 - 2052)

(ALCATEL SEL, 1.5 GHz BAND)

S/N	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Kavrepalanchowk	Dolalghat	Completed	Proposed	8			
		Dapcha	Completed		8			
		Peanchakhal	Completed		12			
		Palanchowk Bhagwati	Completed		4			
		Mahadevethan	Completed		4			
		Ohulikhel Repeater	Completed	Completed				
		Phulbari/Nemobudde	Completed	Proposed	4			
		Chashinkharke Repeater	Completed	Proposed	4			
		Kalapani Repeater	Completed	Proposed	4			
		Mangaltar		Proposed	4			
2	Sindhupalchowk	Birtadourali			4			
		Lamosanghu	Completed		8			
		Barhabise	Completed		12			
		Thulopakhari	Completed		8			
		Tatopani	Completed		4			
		Mankha Repeater	Completed	Completed				
Siphalkhure Repeater	Completed							
Sermathang								
Dandepokhar Repeater	Completed							
		Sub Total			9	88	0	

## 16) SYSTEM: CHAIRAJAWA

(Year 2051 - 2052)

(ALCATEL SEL, 1.5GHz BAND)

S/N	District	Terminal Stations	Survey Status	Installation Status	Capacity Installed/Proposed	Line Distributed	Possible Extension	Remarks
1	Rupandehi	Bheirawa Base	Completed	Completed				
		Lumbini	Completed	Proposed	12			
		Sajihandi	Completed	1	4			
		Dayanagar	Completed	1	4			
		Murgiha(Paroha)	Completed	1	4			
		Dhakdhai	Completed	1	4			
		S.Forsatiker	Completed	1	4			
		Majhagawa	Completed	Proposed	4			
		Devdha	Completed	1	4			
		Theda	Completed	1	4			
2	Argakhanchi							
3	Nawalparasi	Arunkhola	Completed	1	4			
		Kawasoti	Completed	1	4			
		Sunawal	Completed	1	12			
		Berghat	Completed	1	4			
		Pratappur	Completed	1	4			
4	Kerlibastu	Dunne Repeater	Completed	Completed				
		Barohiya	Completed	1	4			
		Galriya	Completed	1	4			
		Kopawa	Completed	1	4			
		Patharkot	Completed	1	4			
		Gorusinghe	Completed	1	4			
		Maharsajun]	Completed	1	4			
		Cheneute	Completed	1	4			
		Kirtipur Repeater	Completed	Completed	4			
				Sub Total		10	104	6

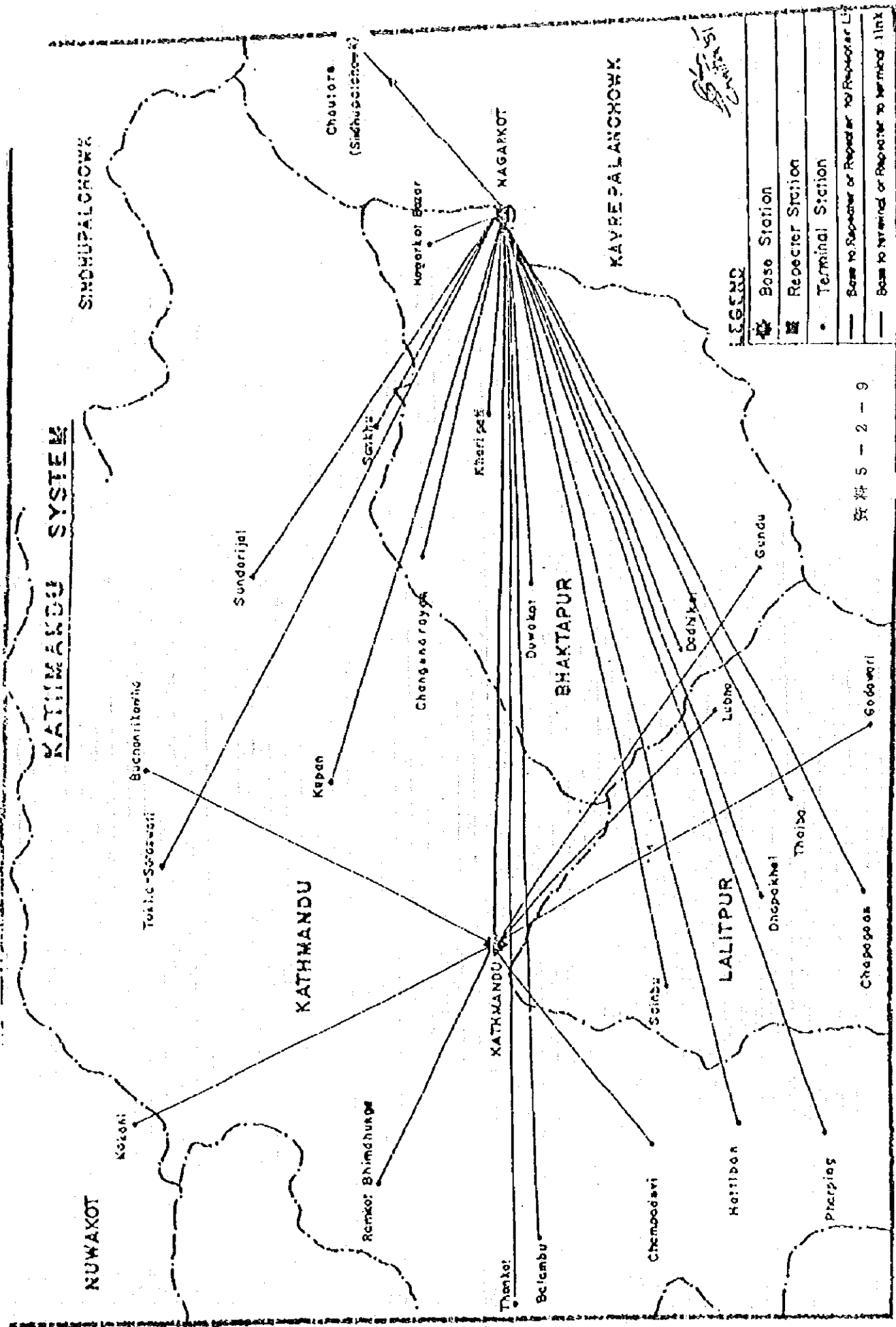
## 17) SYSTEM: DHANKUTA (Year 2051 - 2052)

(ALCATEL SEL, 1.5GHz BAND)

S/N	District	Terminal Stations	Status	Status	Installed/Proposed	Distributed	Possible Extension	Remarks
1	Dhankuta	Dhankuta Base	Completed	Completed				
		Budhabare	Completed	1	4	1		
		Jitpur	Completed	1	4			
		Pakhibas	Completed	1	8			
		Dandabazar	Completed	1	8	1		
		Ganeshtar Repeater	Completed	Completed	4	1		1 VHF
		Rajarani	Completed	1	4			
		Parewadin	Completed					
		Bhodetar Repeater	Completed	Completed	4			
		Bhojpur	Bhojpur Repeater	Completed	Completed			
2	Bhojpur	Ghodetar / Ranibas	Completed	1	4			
		Dingia	Completed	1	4			
		Tharibhanjyang	Completed	1	4			
		Kulung	Completed	1	4			
		Jhysupokhari	Completed	1	4	1		
		Anepurna	Completed	1	4			
		Balankha	Completed	Proposed	4			
		Kharthamcha Repeater	Completed	Proposed	4			
		Baikunthe	Completed					
		Changre	Completed					
3	Sankhuwasabha	Pyauli	Completed					
		Pangma	Completed	Proposed	4			
		Tumlingtar	Completed	1	4	1		
		Rambenimadi	Completed	1	4			
		Wana	Completed	1	4			
		Arun III P.H.	Completed	Proposed	4			
		Arun III D.M.	Completed	Proposed	4			
		Khadbari Repeater	Completed	Completed	4			
		Kharang	Completed					
		Mawadin	Completed					
4	Terhathum	Sitalpati	Completed					
		Malta	Completed					
		Jirikhimti	Completed					
		Morehang	Completed	1	4	1		
		Sukrebare	Completed	1	4			
		Terhathum Repeater	Completed	Completed	4			
		Sub Total		16	104	6		

Total subscriber terminal installed so far : 268, 2688, 1173

# KATHMANDU SYSTEM

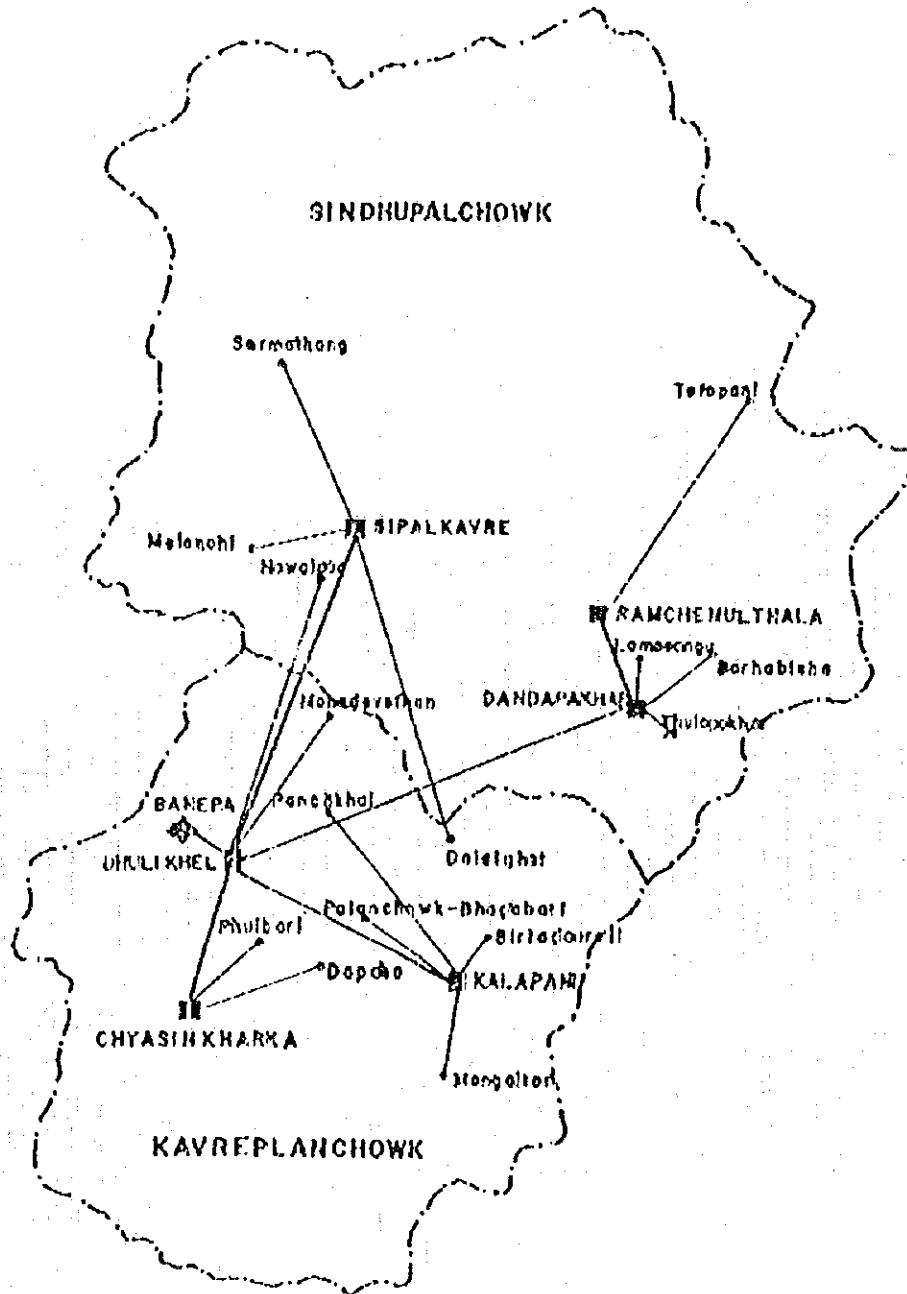


**LEGEND**

	Base Station
	Repeater Station
	Terminal Station
	Base to Repeater or Repeater to Repeater Link
	Base to Terminal or Repeater to Terminal Link

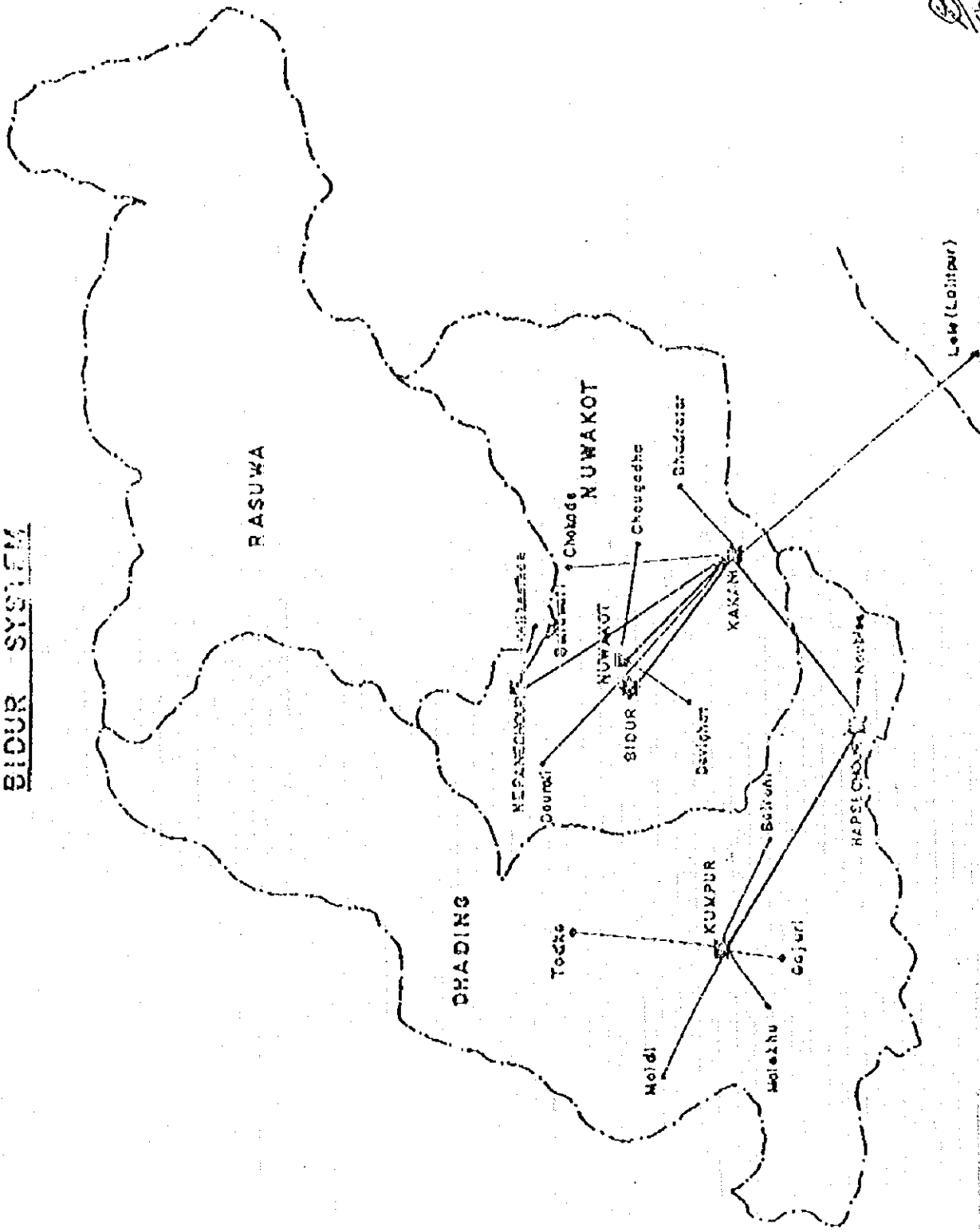
資料 5 - 2 - 9

# BANEPA SYSTEM



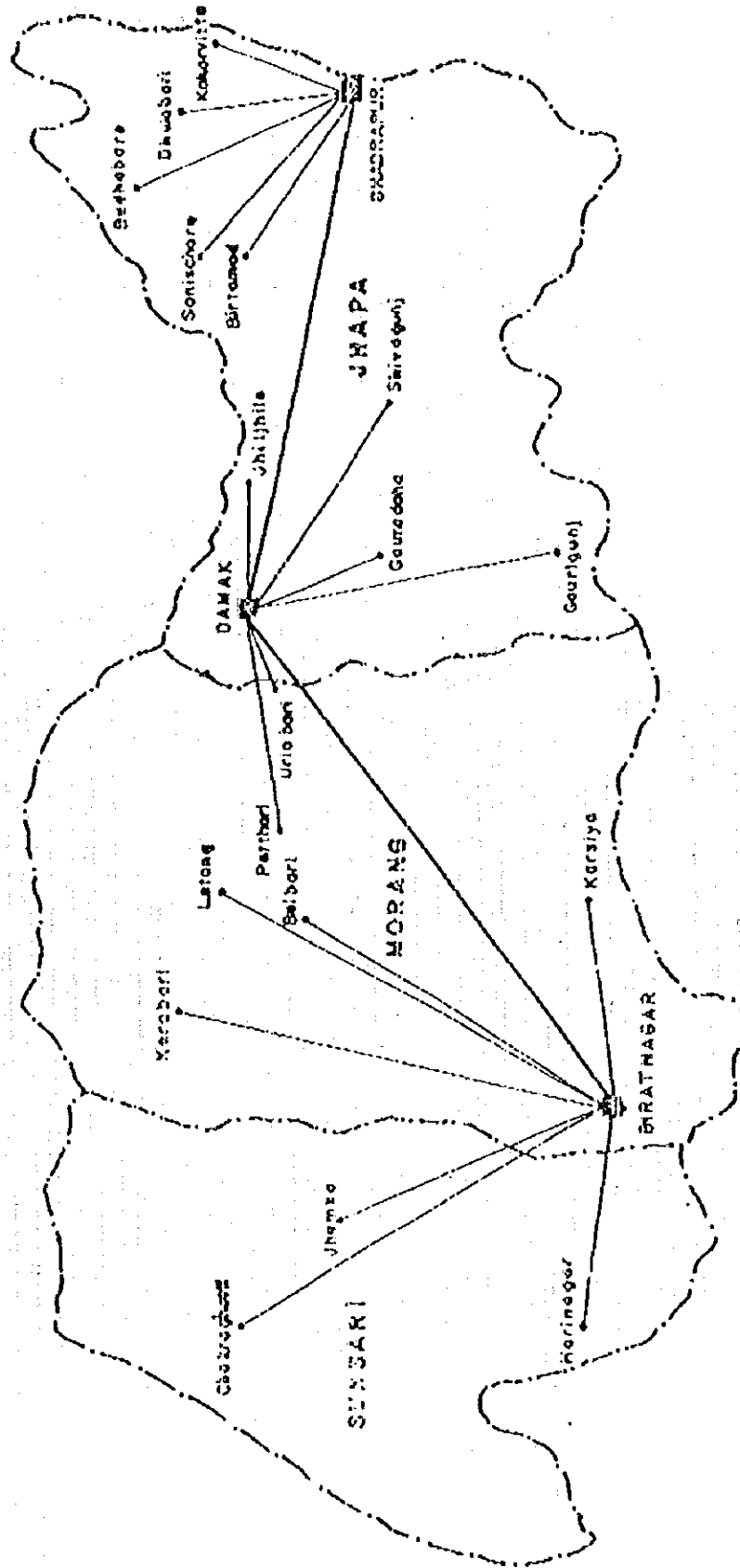
*CSM*  
Chaitra 51

BIDUR SYSTEM

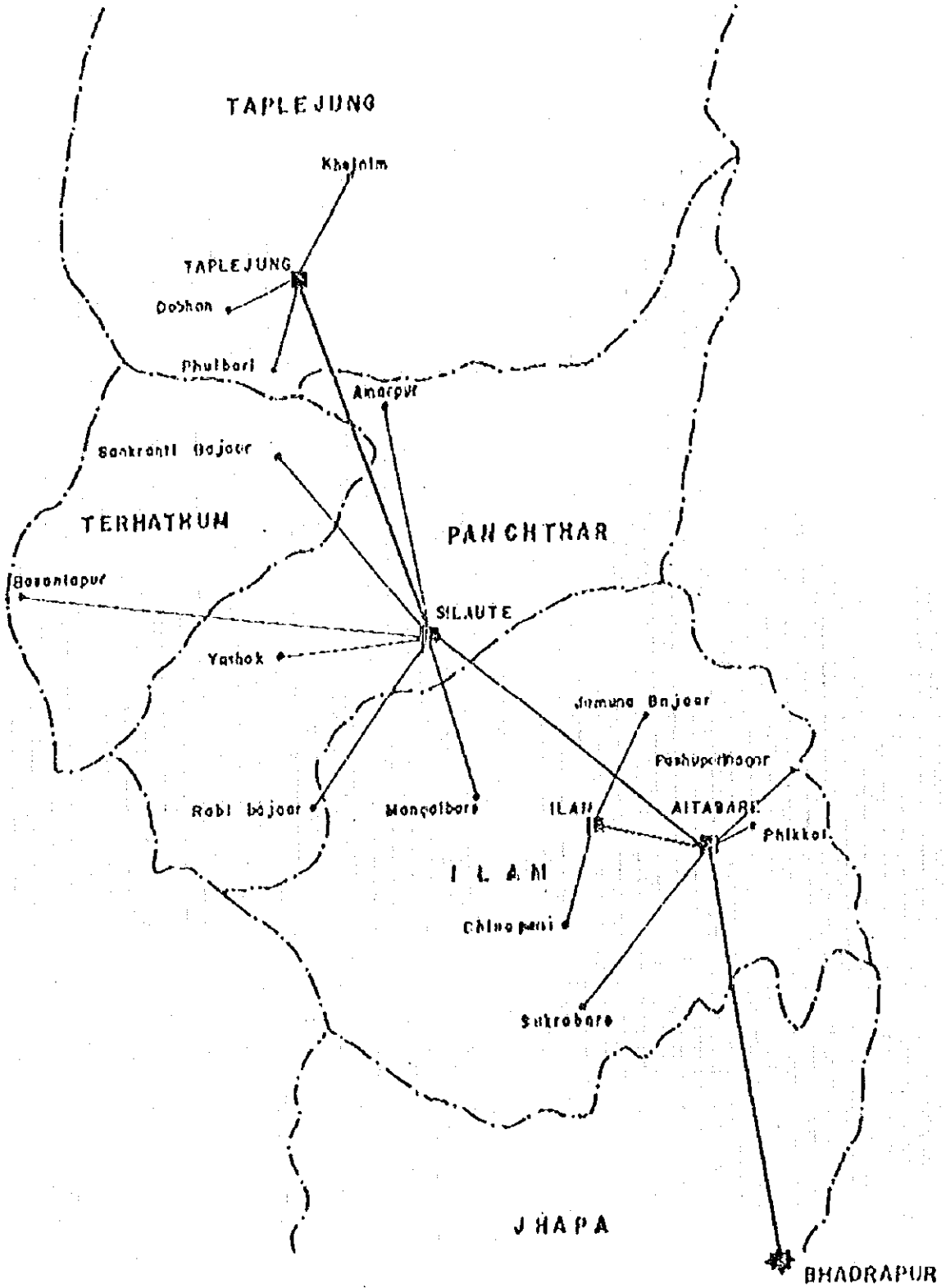




BIRATHABAR SYSTEM

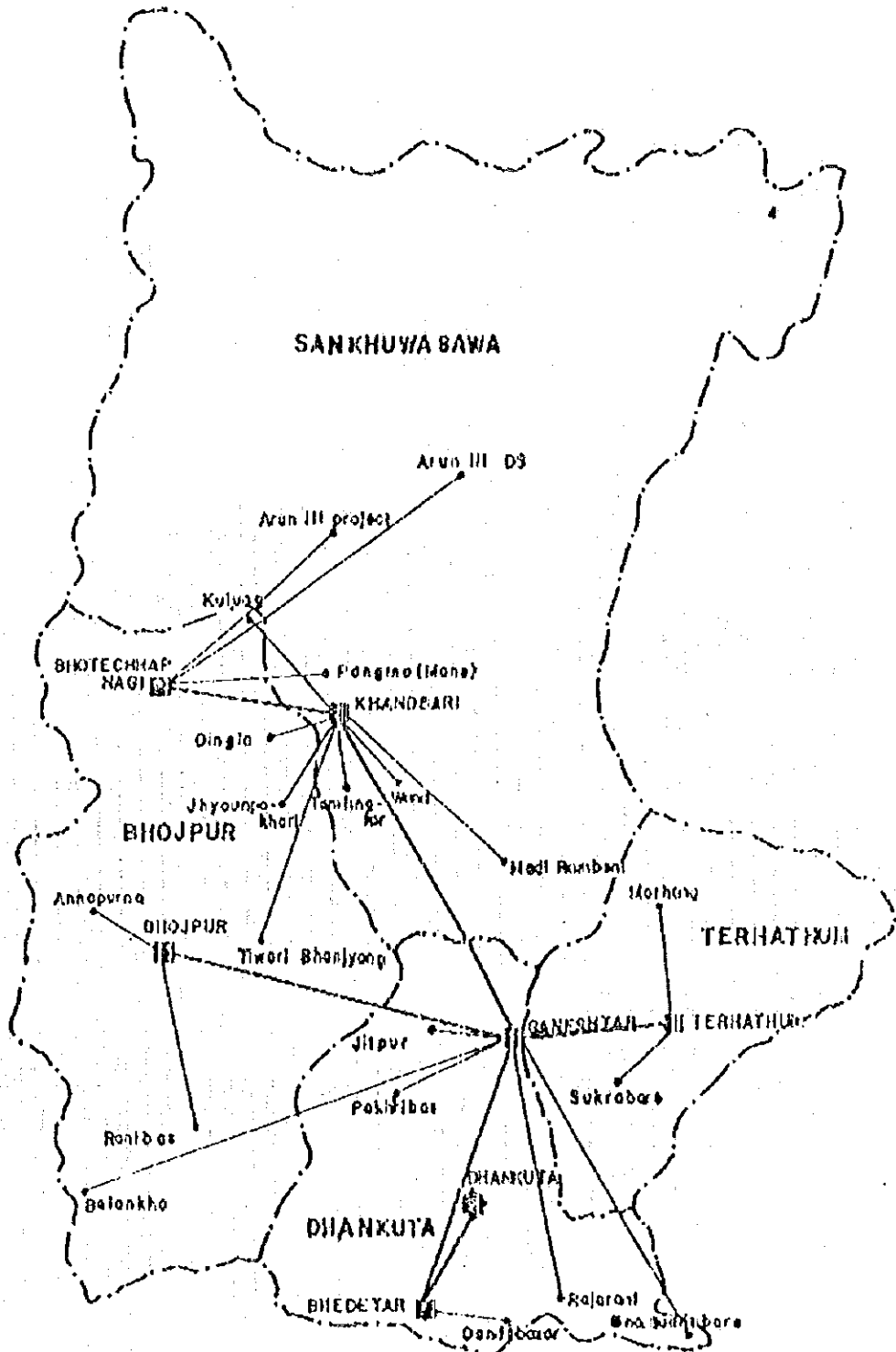


**BHADRAPUR SYSTEM**



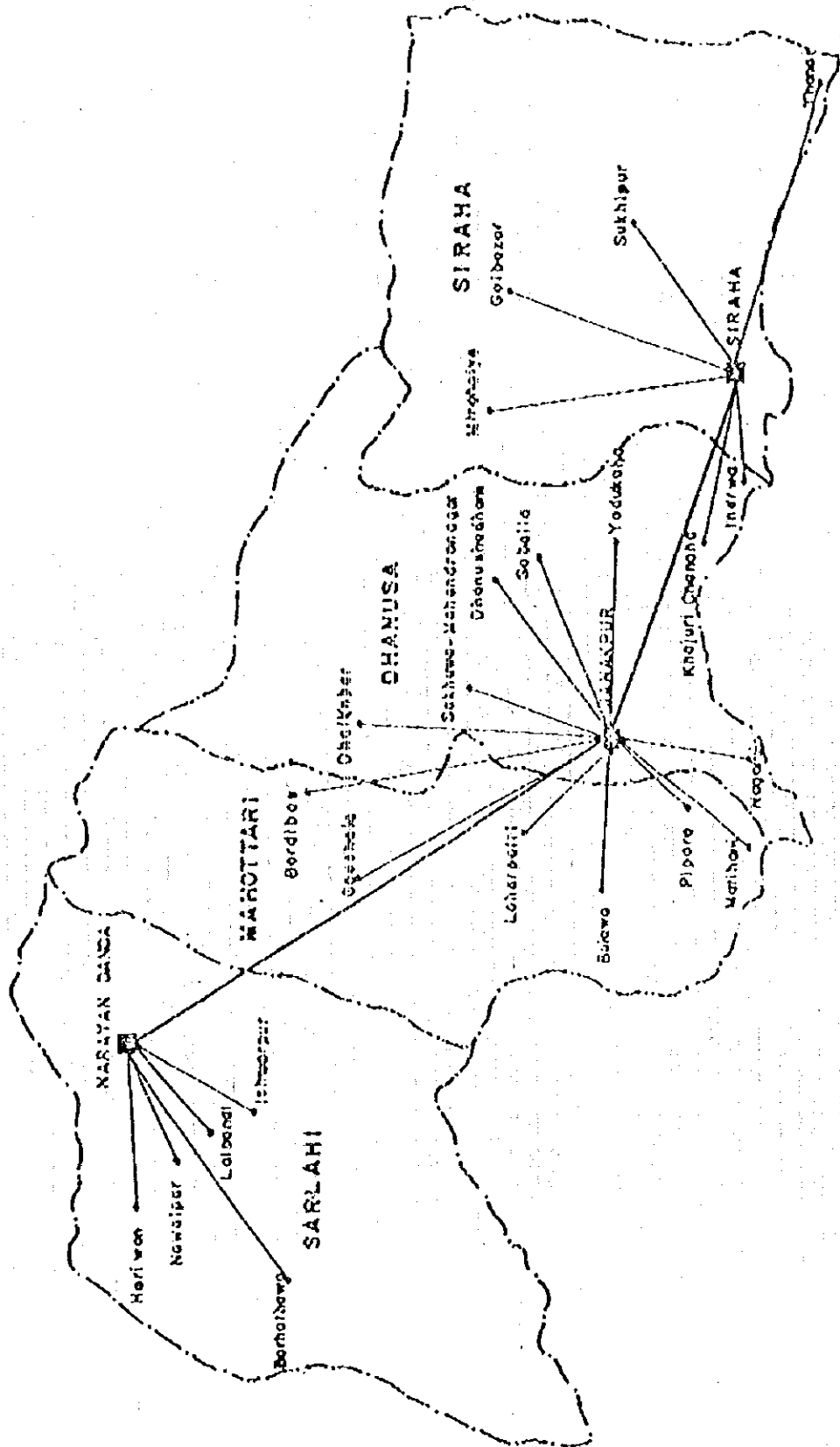
*Chaitan '51*

# DHANKUTA SYSTEM



*Chaitra 57*

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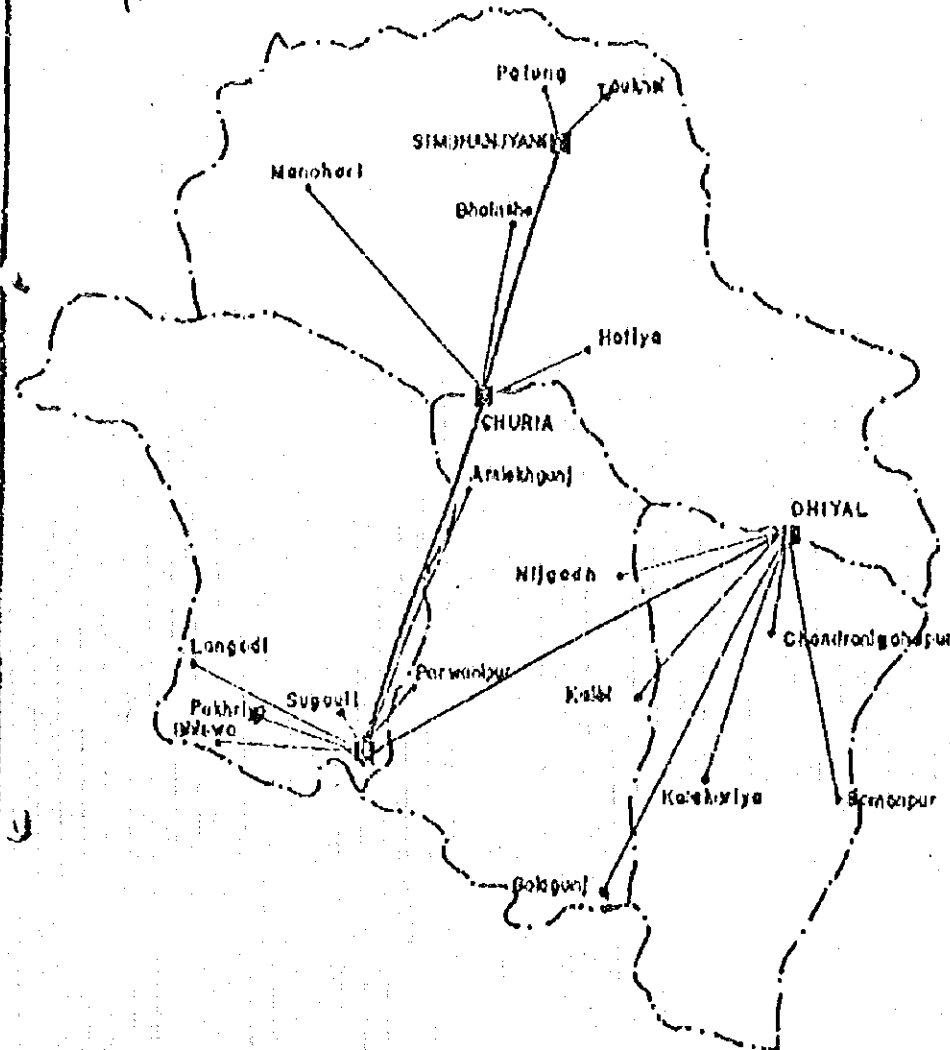


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EX 9191200

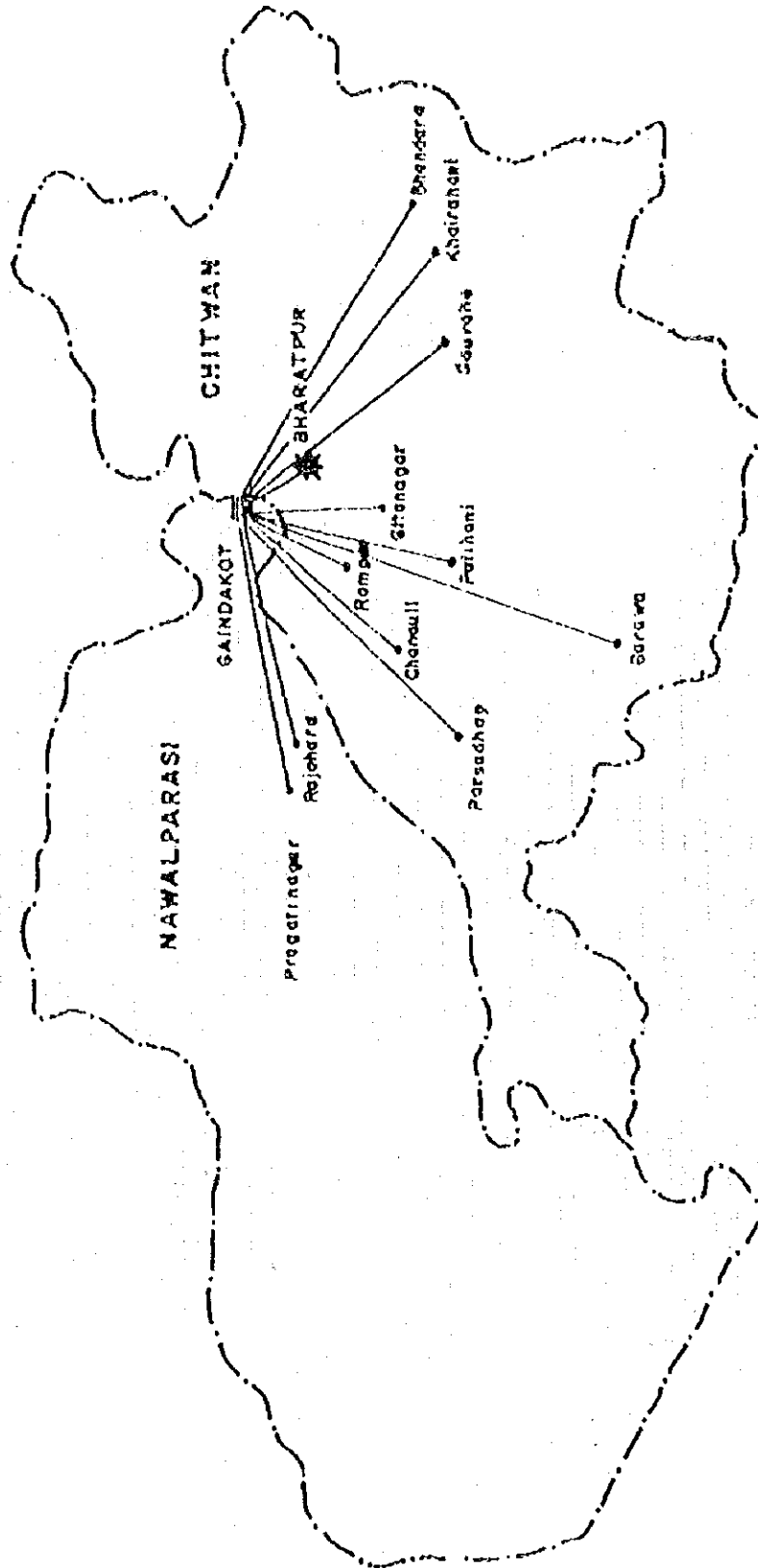
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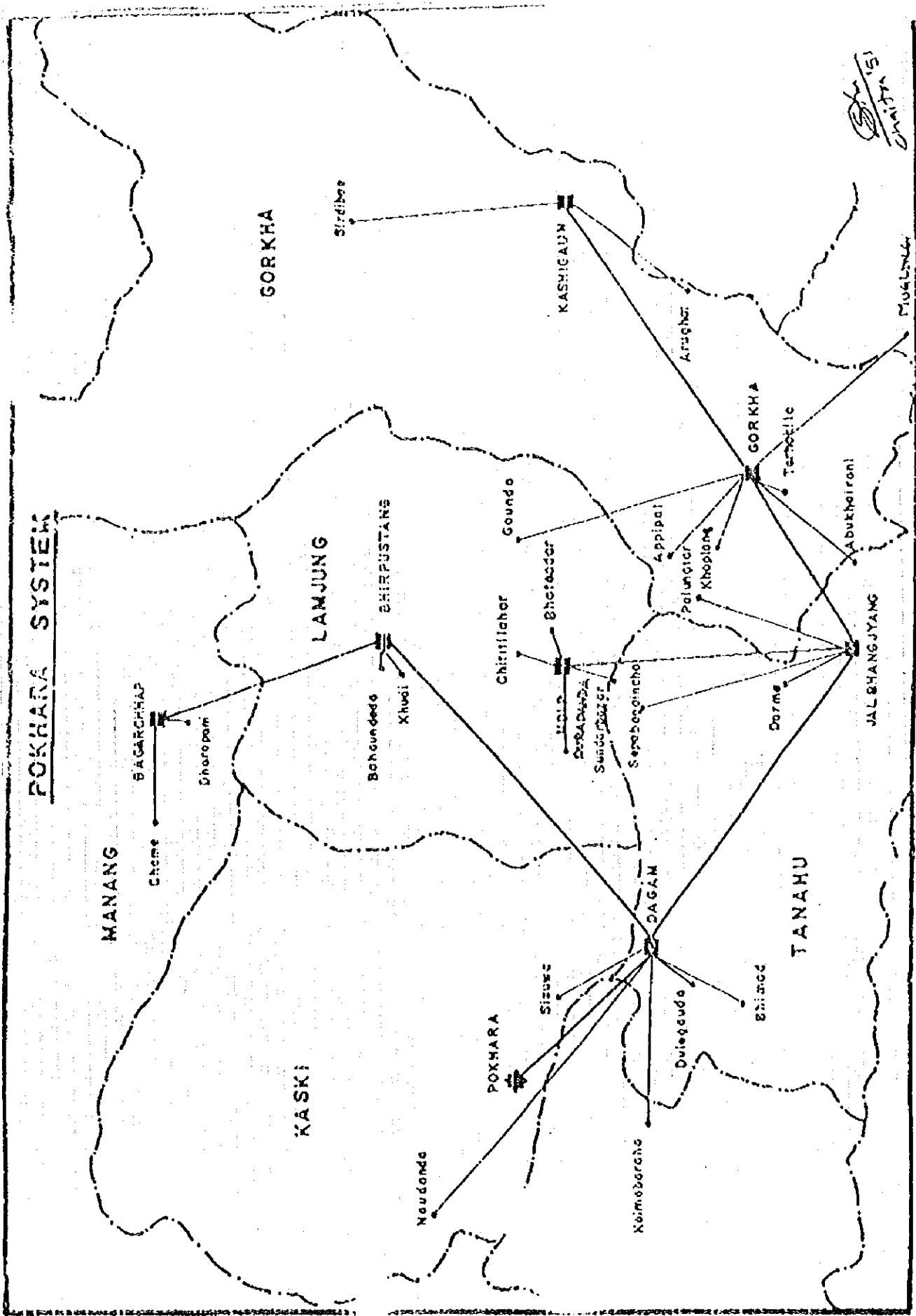
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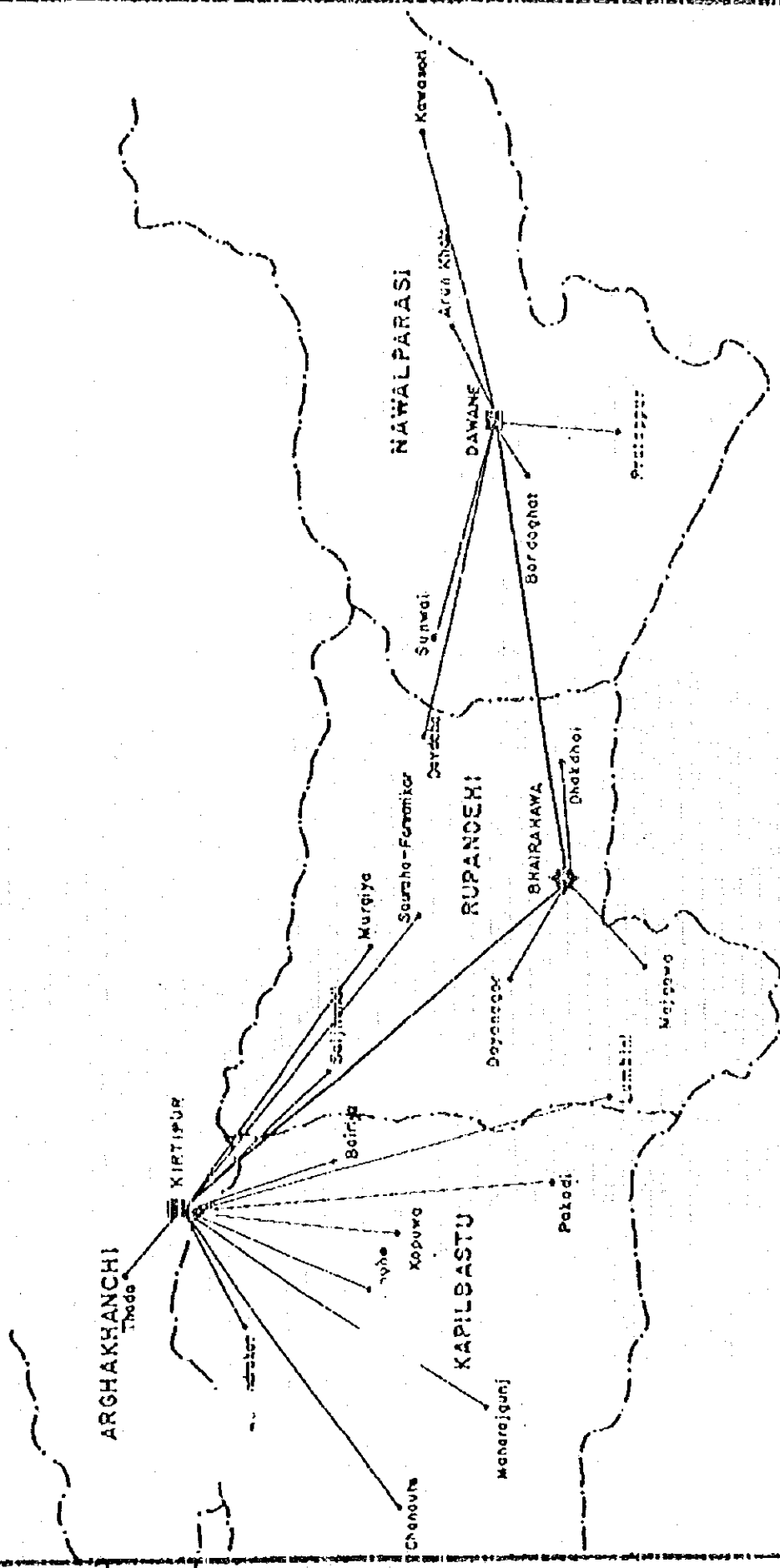
S.K.  
Chaitra '51

BHARATPUR SYSTEM



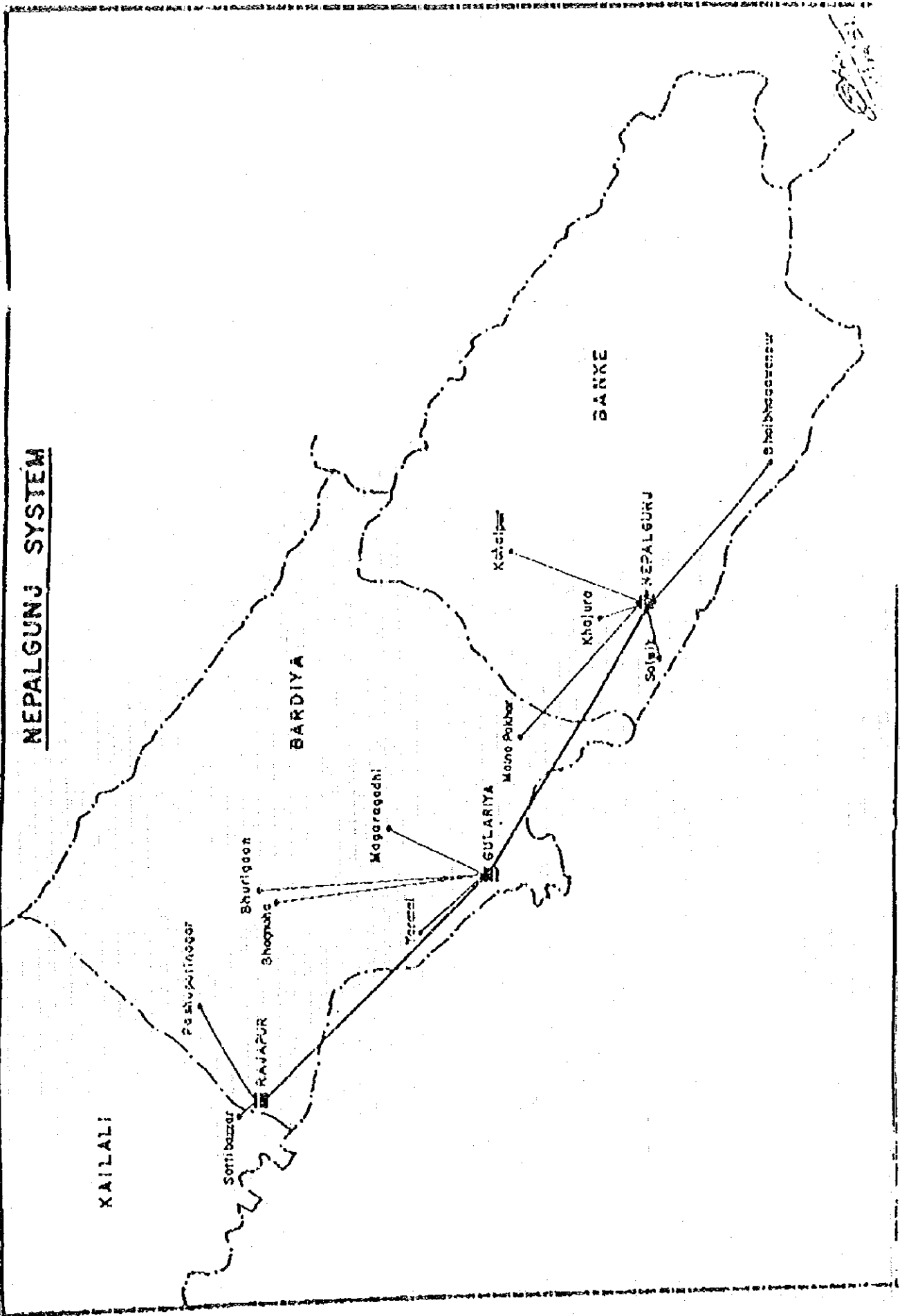


**BHAIRAHAWA SYSTEM**



*Dr. S. S. Chandra*





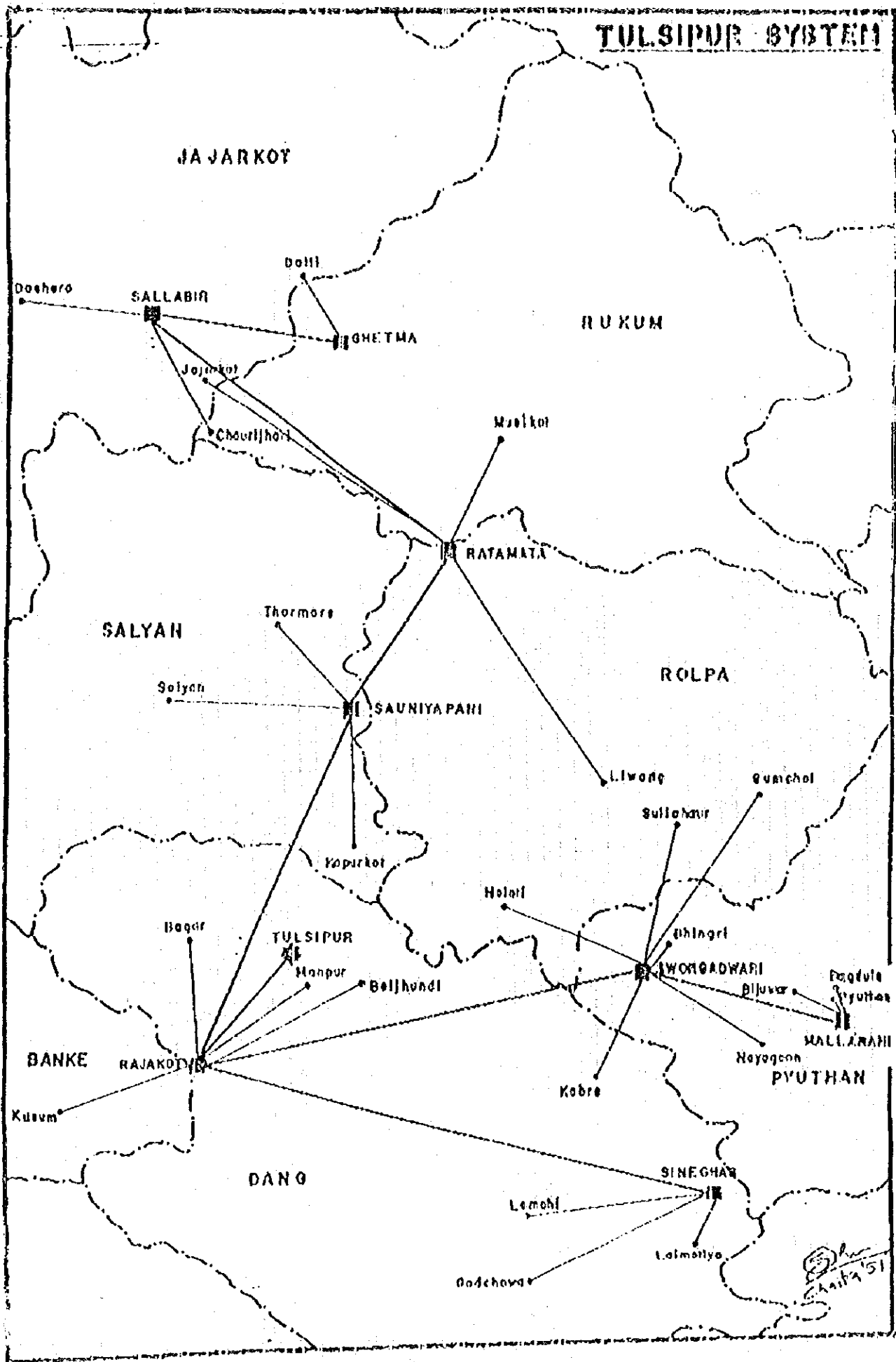
**NEPALGUNJ SYSTEM**

KAILALI

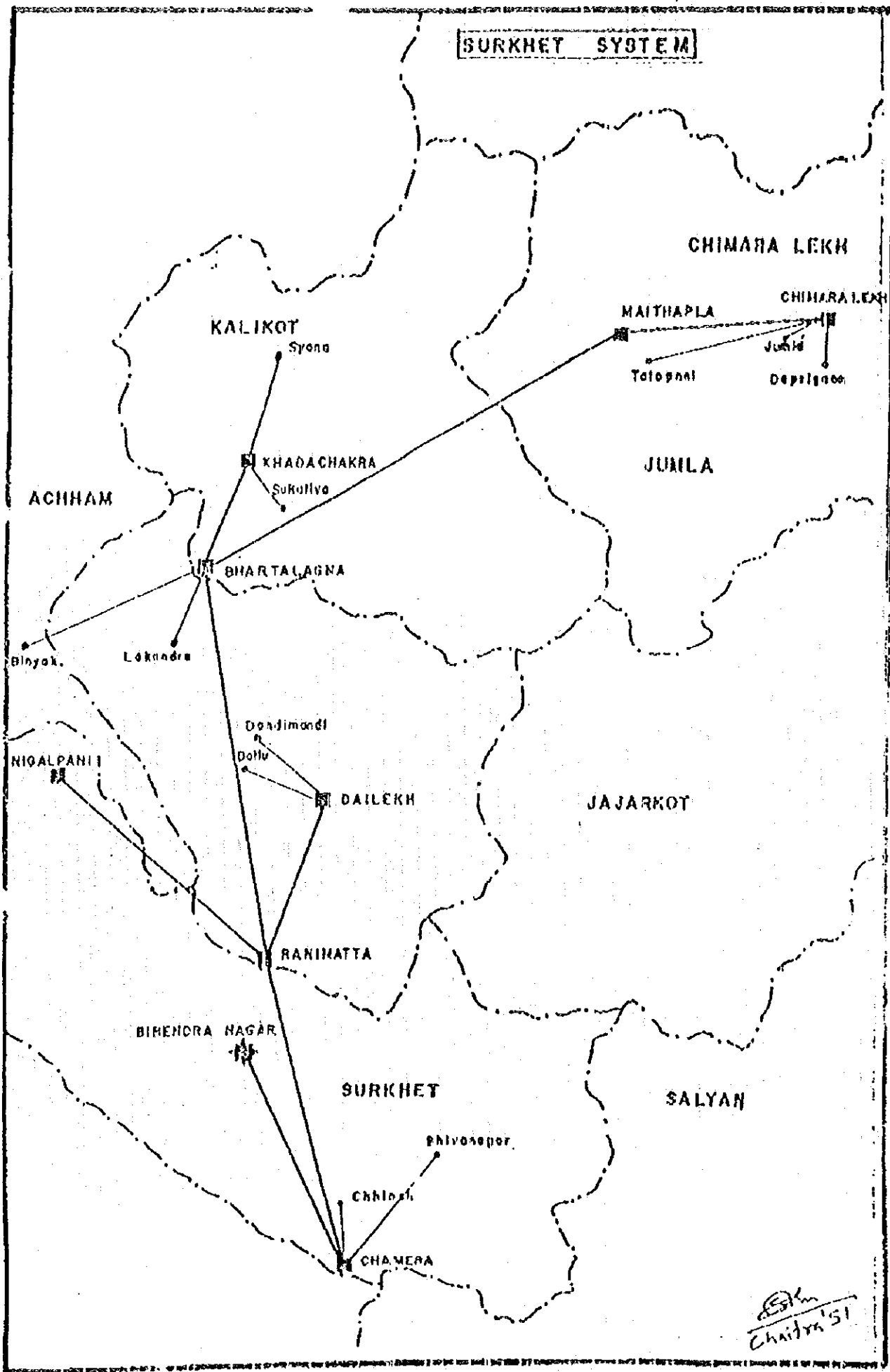
BARDIYA

BANKE

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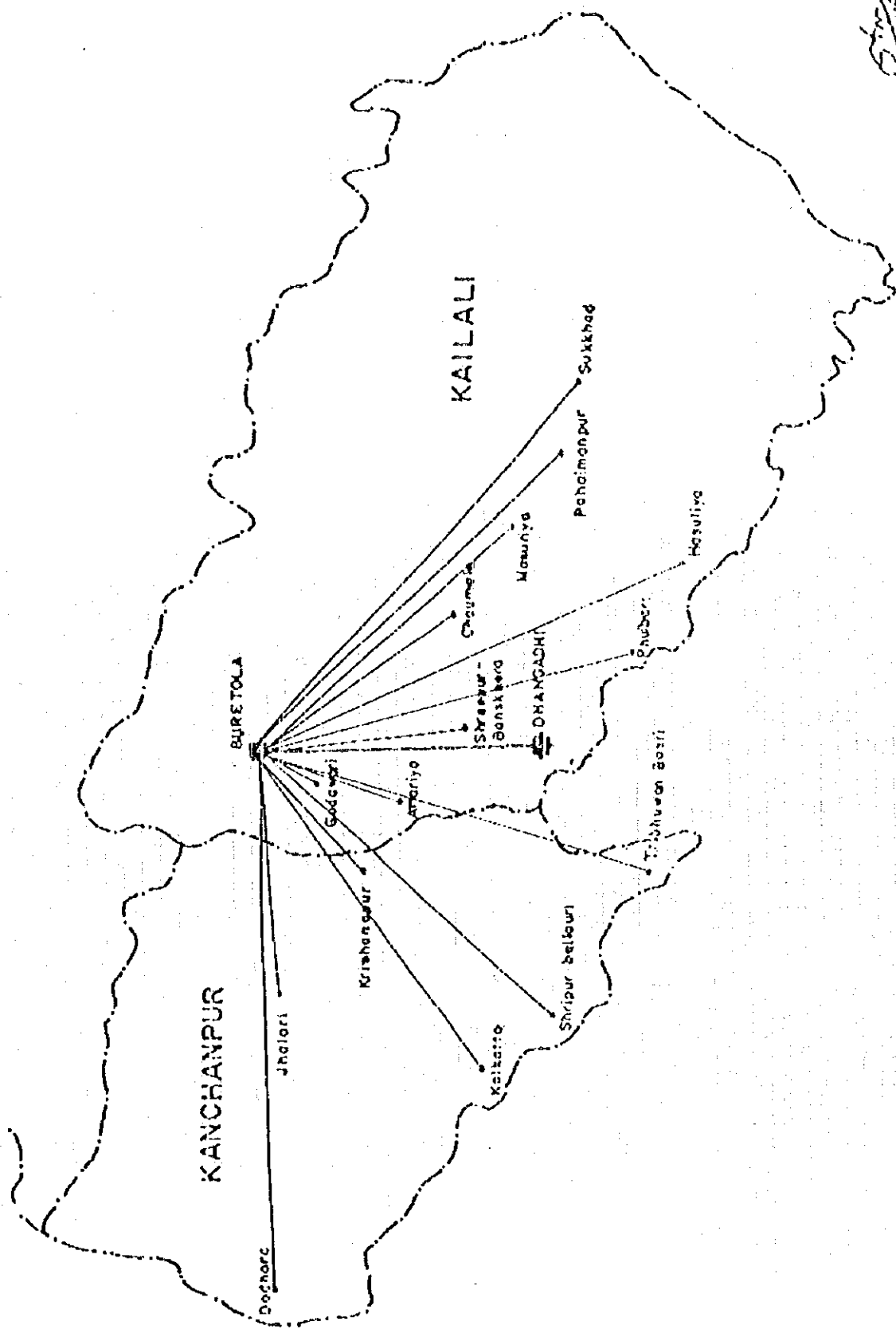


**SURKHET SYSTEM**



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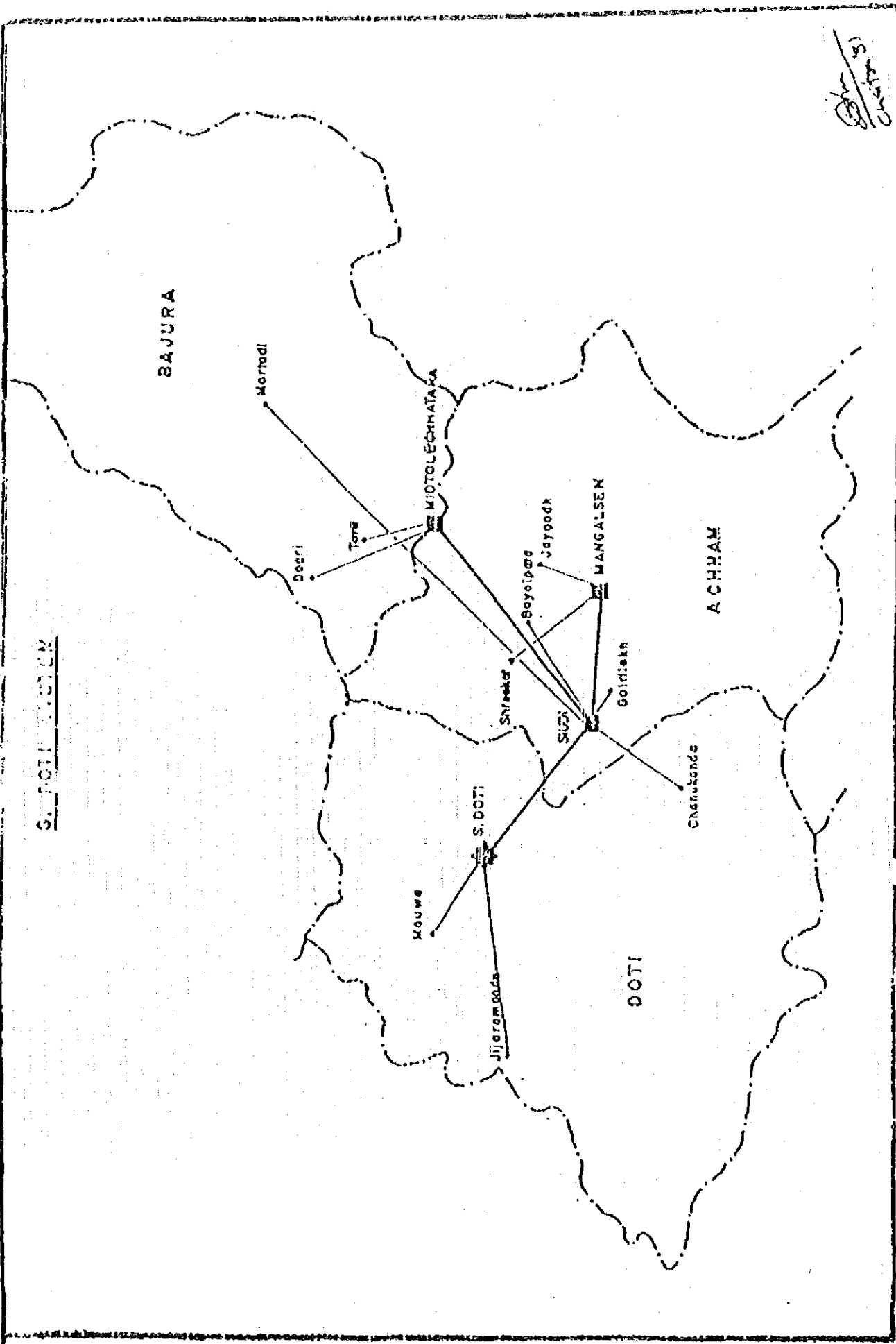
DHANGADHI SYSTEM



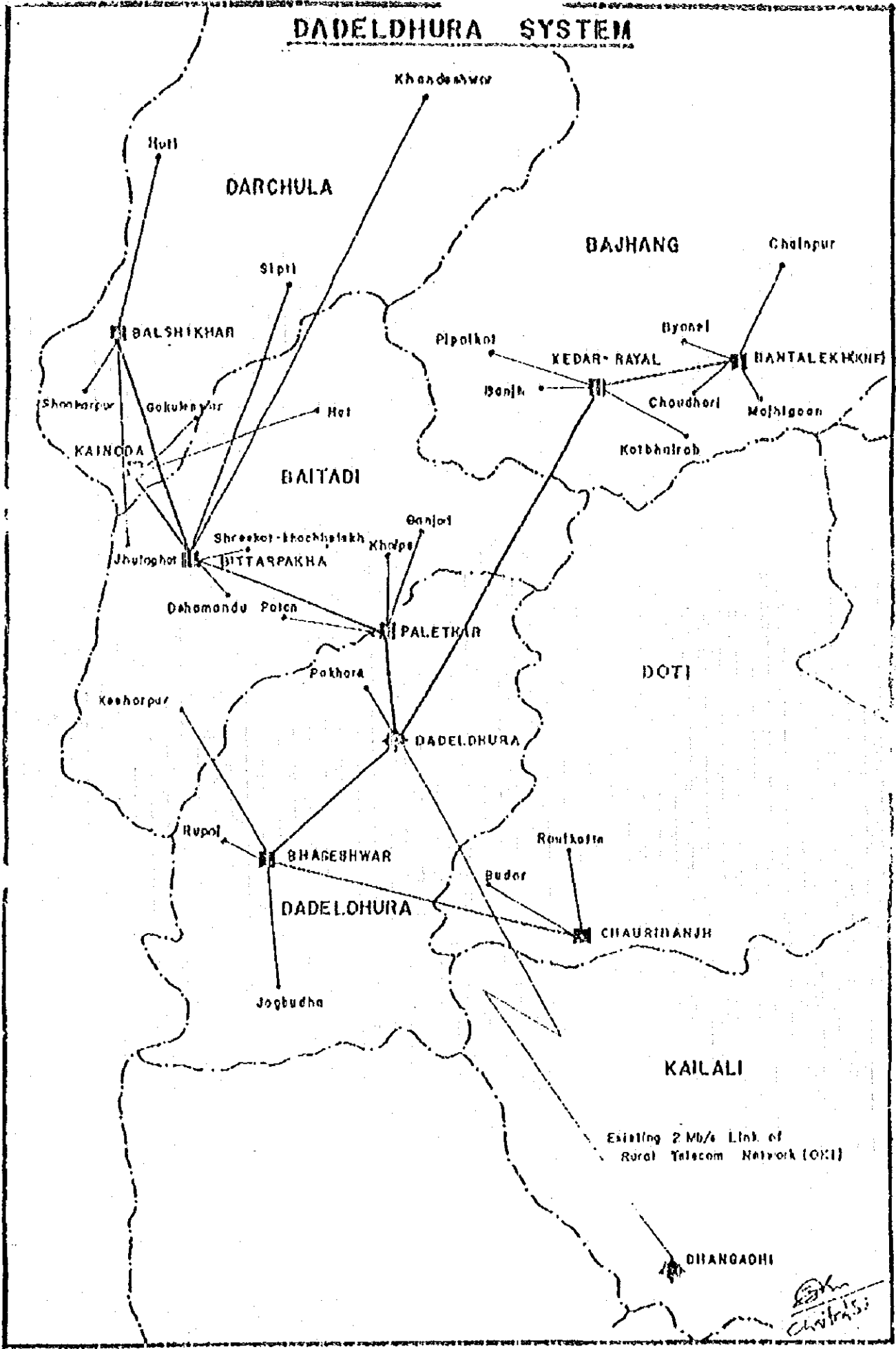
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S. DOTI SYSTEM



# DADELDHURA SYSTEM



**NEPAL TELECOMMUNICATIONS CORPORATION**  
**MAIN TRANSMISSION LINK (ABB NERA)**  
 Vth Telecommunications Project

LINK		ROUTE KM	LINK CAPACITY	EQUIPPED CHANNEL	CHANNEL -KM
<b>A. MAIN LINK:</b>					
1	PATAN -BHARATPUR	124	140 Mb/s	240	29,640
	-POKHARA	147	140 Mb/s	240	35,232
	-BHAIRAHAWA	235	140 Mb/s	240	56,304
	-NEPALGUNJ	416	140 Mb/s	360	149,616
	-BIRGUNJ	87	140 Mb/s	960	83,232
2	POKHARA -BHARATPUR	118	140 Mb/s	120	14,172
	-BHAIRAHAWA	129	140 Mb/s	120	15,504
3	BHAIRAHAWA -BHARATPUR	206	140 Mb/s	120	24,708
	-TAULIHAWA	78	140 Mb/s	120	9,348
	-NEPALGUNJ	237	140 Mb/s	120	28,416
<b>B. SPUR LINK:</b>					
1	BIRATNAGAR -BHARAN	31	140 Mb/s	980	14,640
2	BHADRAPUR -DHULABARI	15	16x2 Mb/s	120	1,752
	-BIRATMOD	15	16x2 Mb/s	120	1,776
	-Atwari (Gangl-Jesh)	40	2 Mb/s	50	1,200
3	GAUR -MALANGAWA	18	16x2 Mb/s	120	2,160
4	BHAIRAHAWA -LUMBINI	20	16x2 Mb/s	120	2,400
<b>TOTAL</b>		<b>1,913</b>		<b>3,630</b>	<b>470,100</b>

**PROJECT STATUS:**

CONTRACT SIGNED ON:

11 August 1994

Equipment Delivery:

5.5 months after confirmed order

FILE: J:\madhuleh\kin\lad; DATED 7TH JUNE 1994

CENTRAL OFFICE  
PROPOSED/APPROVED BUDGET FOR FY 2051/52 (1994/1995)  
ADMINISTRATIVE EXPENSES

(1) 本社関連部門

Rs. in Thousand

Code No.	Particulars Fiscal Year	Actual Expenses 2049/50	Approved Budget 2050/51	8 Months Expenses 2050/51	Revised Budget 2050/51	Proposed Budget 2051/52
3002-01	Salaries	11668	14,000	9,182	14,000	20,000
.. 01k	Wages	68	160	117	180	200
.. 02	Provident Fund	1001	1,200	689	1,015	1,000
.. 03	Salaries for Earned Leave	862	1,050	500	700	1,000
.. 04	Food & Clothing Allowances	3114	3,600	2,403	3,734	5,000
.. 05	House Rent Allowances	0	0	0	0	0
.. 06	Overtime Allowances	508	970	498	900	1,200
.. 07	Travelling Expenses	2095	2,300	532	5,000	5,000
.. 08	Repairs - Plant & Off. Equip.	548	950	636	1,600	500
.. 09	Repairs - Buildings	509	455	220	400	400
.. 10	Power, Heating & Lighting	369	1,968	105	300	200
.. 11	Rent, Rates & Taxes	1570	2,520	196	0	5,000
.. 12	Fuel For Vehicles	1110	1,122	619	1,500	2,500
.. 13	Repairs - Vehicles	539	762	412	700	1,000
.. 14	Carriage	284	439	187	400	800
.. 15	Printing & Stationery	3571	4,565	1,482	4,565	5,000
.. 16	Postage	71	87	40	87	500
.. 17	Subscription	1316	1,948	121	400	800
.. 18	Medical Expenses	889	1,160	671	1,076	1,150
.. 19	Advertisement	549	805	250	945	1,500
.. 20	Meeting Fees & Expenses	152	200	100	175	200
.. 21	Audit Fee & Expenses	140	200	2	200	200
.. 22	Legal & Professional Fees	10564	150	22	50	200
.. 23	Office Furnishing	133	200	46	200	300
.. 24	Insurance	8801	13,000	2,279	13,000	13,000
.. 25	Bank Commission	889	500	108	200	500
.. 27	Training Expenses	2520	200	186	200	2,500
.. 28	Office Rent	0	0	0	0	0
.. 29	Entertainment	172	300	194	300	500
.. 30	Miscellaneous	1516	1,230	949	1,830	2,300
.. 30k	Miscellaneous	0	0	0	0	0
.. 40	Recruitment & Meeting Fees	62	1,200	260	500	500
.. 41	IntelSat Rental	25004	33,000	10,348	27,000	30,000
.. 42	Commitment Fees	0	1,300	0	0	1,300
.. 43	Bill Processing Expenses	0	0	0	0	0
	Sub Total	80,629	91,541	33,354	81,187	104,310
.. 9k	Repairs - Store	8778	0	12	0	0
.. 11	Income Tax	0	0	0	0	0
.. 18	Medical Expenses	0	0	0	0	0
.. 22	Legal & Professional Fees	0	0	0	0	0
.. 26	Pension & Gratuity	5983	0	2,068	0	0
.. 27	Training Expenses	0	0	0	0	0
.. 31	Bad Debts Written Off	0	0	0	0	0
.. 32	Provision For O. & D. Debt.	7	0	0	0	0
.. 33	Write-offs - Lost Items etc.	0	0	0	0	0
.. 34	Interest On Deposit	0	0	0	0	0
.. 34k	Interest On Loan	112,375	0	56,734	0	0
.. 35	Depreciation	280669	0	0	0	0
.. 36	Loss On Foreign Exchange	6433	0	0	0	0
.. 37	P&L On Disposal Of F. Asset	0	0	0	0	0
.. 38	Prior Years Adjustment	-154546	0	261	0	0
.. 39	Bonus	0	0	0	0	0
.. 44	Expe. For Ministry Of Commu.	0	0	0	0	0
	TOTAL	340318	91,541	92,429	81,187	104,310



NEPAL TELECOMMUNICATIONS CORPORATION  
CENTRAL OFFICE  
PROPOSED/APPROVED BUDGET FOR FY 2051/52(1994/1995)  
ADMINISTRATIVE EXPENSES

(2) 伝送プロジェクト施設部

Rs. in Thousand

Code No.	Particulars Fiscal Year	Actual	Approved	8 Months	Revised	Proposed
		Expenses 2049/50	Budget 2050/51	Expenses 2050/51	Budget 2050/51	Budget 2051/52
3002-01	Salaries	1598	1,675	980	1,500	1,600
..01k	Wages	0	0	0	0	0
..02	Provident Fund	114	135	57	75	117
..03	Salaries for Earned Leave	81	125	45	100	123
..04	Food & Clothing Allowances	285	280	169	260	256
..05	House Rent Allowances	0	0	0	0	0
..06	Overtime Allowances	29	150	12	30	50
..07	Travelling Expenses	43	50	4	20	50
..08	Repairs - Plant & Off.Equip	11	30	13	20	30
..09	Repairs - Buildings	64	20	3	10	20
..10	Power, Heating & Lighting	1	5	2	5	5
..11	Rent, Rates & Taxes	0	75	29	60	150
..12	Fuel For Vehicles	80	400	94	160	400
..13	Repairs - Vehicles	307	500	137	300	300
..14	Carriage	0	5	0	0	0
..15	Printing & Stationery	88	100	62	100	100
..16	Postage	2	2	2	3	2
..17	Subscription	5	10	4	5	10
..18	Medical Expenses	129	125	98	125	125
..19	Advertisement	59	100	41	75	100
..20	Meeting Fees & Expenses	0	0	0	0	0
..21	Audit Fee & Expenses	0	0	0	0	0
..22	Legal & Professional Fees	0	0	0	0	0
..23	Office Furnishing	11	20	0	10	20
..24	Insurance	0	0	0	0	0
..25	Bank Comission	2	2	2	2	3
..27	Training Expenses	0	0	0	0	0
..28	Office Rent	11	50	0	50	50
..29	Entertainment	2	10	2	5	10
..30	Miscellaneous	414	120	59	120	150
..30k	Miscellaneous	0	0	0	0	0
..40	Recruitment & Meeting Fees	0	0	0	0	0
..41	Intelsat Rental	0	0	0	0	0
..42	Commitment Fees	0	0	0	0	0
..43	Bill Processing Expenses	0	0	0	0	0
	Sub Total	3,336	3,989	1,815	3,035	3,671
..9k	Repairs - Store	0	0	0	0	0
..34	Interest On Deposit	0	0	0	0	0
..38	Prior Years Adjustment	8	0	(15)	0	0
..39	Bonus	0	0	0	0	0
	Total	3,344	3,989	1,800	3,035	3,671

NEPAL TELECOMMUNICATIONS CORPORATION  
CENTRAL OFFICE  
PROPOSED/APPROVED BUDGET FOR FY 2051/52(1994/1995)  
ADMINISTRATIVE EXPENSES

(3) 市外線保全部

Rs. in Thousand

Code No.	Particulars Fiscal Year	Actual	Approved	8 Months	Revised	Proposed
		Expenses 2049/50	Budget 2050/51	Expenses 2050/51	Budget 2050/51	Budget 2051/52
3002-01	Salaries	2649	2,925	1,725	2,700	3,000
.. 01k	Wages	85	0	130	200	230
.. 02	Provident Fund	217	270	142	225	250
.. 03	Salaries for Earned Leave	430	550	124	200	233
.. 04	Food & Clothing Allowances	746	850	465	625	750
.. 05	House Rent Allowances	0	0	0	0	0
.. 06	Overtime Allowances	106	120	73	120	130
.. 07	Travelling Expenses	179	200	57	175	200
.. 08	Repairs - Plant & Off.Equip	186	250	159	225	250
.. 09	Repairs - Buildings	89	160	76	150	160
.. 10	Power, Heating & Lighting	1051	1,300	689	1,100	1,300
.. 11	Rent, Rates & Taxes	22	75	2	50	50
.. 12	Fuel For Vehicles	262	300	98	250	300
.. 13	Repairs - Vehicles	170	200	88	150	200
.. 14	Carriage	39	60	47	60	75
.. 15	Printing & Stationery	51	60	43	60	75
.. 16	Postage	2	5	2	5	5
.. 17	Subscription	9	15	7	15	15
.. 18	Medical Expenses	244	255	188	210	230
.. 19	Advertisement	15	25	6	20	25
.. 20	Meeting Fees & Expenses	0	0	0	0	0
.. 21	Audit Fee & Expenses	0	0	0	0	0
.. 22	Legal & Professional Fees	0	0	0	0	0
.. 23	Office Furnishing	18	30	14	30	30
.. 24	Insurance	0	0	0	0	0
.. 25	Bank Comission	0	1	0	1	1
.. 27	Training Expenses	0	0	0	0	0
.. 28	Office Rent	0	0	0	0	0
.. 29	Entertainment	11	12	11	16	15
.. 30	Miscellaneous	15	10	6	10	15
.. 30k	Miscellaneous	0	0	0	0	0
.. 40	Recruitment & Meeting Fees	0	0	0	0	0
.. 41	Intelsat Rental	0	0	0	0	0
.. 42	Commitment Fees	0	0	0	0	0
.. 43	Bill Processing Expenses	0	0	0	0	0
	Sub Total	6,596	7,673	4,152	6,597	7,539
.. 9k	Repairs - Store	1505	0	0	0	0
.. 34	Interest On Deposit	0	0	0	0	0
.. 38	Prior Years Adjustment	201	0	0	0	0
.. 39	Bonus	0	0	0	0	0
	Total	8,302	7,673	4,152	6,597	7,539

NEPAL TELECOMMUNICATIONS CORPORATION  
CENTRAL OFFICE  
PROPOSED/APPROVED BUDGET FOR FY 2051/52(1994/1995)  
ADMINISTRATIVE EXPENSES

(4) テレコム訓練センター

Rs. in Thousand

Code No.	Particulars Fiscal Year	Actual Expenses 2049/50	Approved Budget 2050/51	8 Months Expenses 2050/51	Revised Budget 2050/51	Proposed Budget 2051/52
3002-01	Salaries	1868	2,125	1,285	2,000	2,200
.. 01k	Wages	0	0	0	0	0
.. 02	Provident Fund	155	175	95	145	180
.. 03	Salaries for Earned Leave	219	160	91	120	150
.. 04	Food & Clothing Allowances	532	550	332	500	500
.. 05	House Rent Allowances	0	0	0	0	0
.. 06	Overtime Allowances	31	35	16	30	40
.. 07	Travelling Expenses	34	40	12	25	40
.. 08	Repairs - Plant & Off.Equip	69	50	22	45	50
.. 09	Repairs - Buildings	79	30	27	40	70
.. 10	Power, Heating & Lighting	218	300	176	280	325
.. 11	Rent, Rates & Taxes	5	15	6	6	15
.. 12	Fuel For Vehicles	68	80	40	80	85
.. 13	Repairs - Vehicles	56	70	22	70	70
.. 14	Carriage	0	0	0	0	0
.. 15	Printing & Stationery	244	270	135	270	270
.. 16	Postage	2	3	2	3	3
.. 17	Subscription	9	235	7	235	130
.. 18	Medical Expenses	166	170	140	150	150
.. 19	Advertisement	28	40	2	20	50
.. 20	Meeting Fees & Expenses	0	0	0	0	0
.. 21	Audit Fee & Expenses	0	0	0	0	0
.. 22	Legal & Professional Fees	0	0	0	0	0
.. 23	Office Furnishing	10	63	1	63	10
.. 24	Insurance	0	0	0	0	0
.. 25	Bank Comission	0	0	0	0	0
.. 27	Training Expenses	792	1,400	320	800	1,400
.. 28	Office Rent	0	0	0	0	0
.. 29	Entertainment	30	50	14	50	175
.. 30	Miscellaneous	8	11	2	11	10
.. 30k	Miscellaneous	0	0	0	0	0
.. 40	Recruitment & Meeting Fees	0	0	0	0	0
.. 41	Intelsat Rental	0	0	0	0	0
.. 42	Commitment Fees	0	0	0	0	0
.. 43	Bill Processing Expenses	0	0	0	0	0
	Sub Total	4,623	5,872	2,747	4,943	5,923
.. 9k	Repairs - Store	14	0	0	0	0
.. 34	Interest On Deposit		0	0	0	0
.. 38	Prior Years Adjustment	16	0	2	0	0
.. 39	Bonus		0	0	0	0
.. 31	Bad Debts Written Off		0	0	0	0
	Total	4,653	5,872	2,749	4,943	5,923

NÉPAL TELECOMMUNICATIONS CORPORATION  
CENTRAL OFFICE  
PROPOSED/APPROVED BUDGET FOR FY 2051/52(1994/1995)  
ADMINISTRATIVE EXPENSES

(5) 中央部通信局

Rs. in Thousand

Code No.	Particulars Fiscal Year	Actual	Approved	8 Months	Revised	Proposed
		Expenses 2049/50	Budget 2050/51	Expenses 2050/51	Budget 2050/51	Budget 2051/52
3002-01	Salaries	19901	21,100	12,698	20,000	21,100
.. 01k	Wages	748	900	736	1,100	1,200
.. 02	Provident Fund	1575	1,850	998	1,600	1,850
.. 03	Salaries for Earned Leave	2040	1,600	832	1,500	1,600
.. 04	Food & Clothing Allowances	6956	7,300	4,392	7,000	7,300
.. 05	House Rent Allowances	0	0	0	0	0
.. 06	Overtime Allowances	2029	1,600	927	1,600	1,800
.. 07	Travelling Expenses	42	50	43	85	100
.. 08	Repairs - Plant & Off.Equip	968	1,000	383	1,000	1,000
.. 09	Repairs - Buildings	1058	300	370	750	400
.. 10	Power, Heating & Lighting	10016	11,000	6,838	16,000	25,000
.. 11	Rent, Rates & Taxes	48	60	0	60	80
.. 12	Fuel For Vehicles	536	700	433	700	900
.. 13	Repairs - Vehicles	405	450	210	450	600
.. 14	Carriage	4	20	1	20	20
.. 15	Printing & Stationery	1428	1,450	1,169	1,500	1,600
.. 16	Postage	9	10	4	10	10
.. 17	Subscription	32	35	25	35	75
.. 18	Medical Expenses	1663	1,600	1,414	1,538	1,623
.. 19	Advertisement	364	400	248	500	700
.. 20	Meeting Fees & Expenses	0	0	0	0	0
.. 21	Audit Fee & Expenses	0	0	1	0	0
.. 22	Legal & Professional Fees	3	170	0	100	150
.. 23	Office Furnishing	149	175	109	175	250
.. 24	Insurance	55	100	84	100	100
.. 25	Bank Commission	5	5	1	5	40
.. 27	Training Expenses	0	40	0	0	0
.. 28	Office Rent	480	1,350	474	1,350	1,500
.. 29	Entertainment	38	40	30	40	90
.. 30	Miscellaneous	322	500	139	500	400
.. 30k	Miscellaneous	0	0	0	0	0
.. 40	Recruitment & Meeting Fees		0	0	0	0
.. 41	Intelsat Rental		0	0	0	0
.. 42	Commitment Fees		0	0	0	0
.. 43	Bill Processing Expenses	34	0	27	47	50
	Sub Total	50,908	53,805	32,586	57,765	69,538
.. 9k	Repairs - Store	6215	0	0	0	0
.. 34	Interest On Deposit	8194	8,900	0	8,900	10,000
.. 38	Prior Years Adjustment	563	0	0	0	0
.. 39	Bonus		0	0	0	0
.. 31	Bad Debts Written Off	94	0	0	0	0
.. 31k	Interest On loan		0	0	0	0
	Total	65,974	62,705	32,586	66,665	79,538

NEPAL TELECOMMUNICATION CORPORATION  
CENTRAL OFFICE  
PROPOSED/APPROVED BUDGET FOR FY 2051/52(1994/1995)  
ADMINISTRATIVE EXPENSES

(6) 中西部通信局

Rs. in Thousand

Code No.	Particulars Fiscal Year	Actual	Approved	8 Months	Revised	Proposed
		Expenses 2049/50	Budget 2050/51	Expenses 2050/51	Budget 2050/51	Budget 2051/52
3002-01	Salaries	2789	3,000	1,902	2,900	3,100
01k	Wages	26	60	51	142	280
02	Provident Fund	237	255	151	240	300
03	Salaries for Earned Leave	163	200	121	200	238
04	Food & Clothing Allowances	1172	1,200	811	1,300	1,400
05	House Rent Allowances	0	0	0	0	0
06	Overtime Allowances	120	160	94	160	180
07	Travelling Expenses	254	175	162	250	290
08	Repairs - Plant & Off.Equip	53	60	21	60	60
09	Repairs - Buildings	179	75	45	231	75
10	Power, Heating & Lighting	1491	1,700	957	1,750	2,020
11	Rent, Rates & Taxes	82	111	33	100	111
12	Fuel For Vehicles	89	92	88	111	150
13	Repairs - Vehicles **	164	83	99	112	150
14	Carriage	15	15	7	15	20
15	Printing & Stationery	247	275	133	275	300
16	Postage	31	35	21	35	40
17	Subscription	1	12	5	12	12
18	Medical Expenses	219	231	207	223	238
19	Advertisement	39	50	17	50	50
20	Meeting Fees & Expenses	0	0	0	0	0
21	Audit Fee & Expenses	0	0	0	0	0
22	Legal & Professional Fees	7	5	25	32	5
23	Office Furnishing	20	20	19	22	20
24	Insurance	0	0	0	0	30
25	Bank Comission	33	45	31	50	50
27	Training Expenses	0	0	0	0	0
28	Office Rent	39	43	19	44	84
29	Entertainment	18	18	7	18	18
30	Miscellaneous	23	30	8	30	30
30k	Miscellaneous	0	0	122	210	300
40	Recruitment & Meeting Fees	0	0	0	0	0
41	Intelsat Rental	0	0	0	0	0
42	Commitment Fees	0	0	0	0	0
43	Bill Processing Expenses	0	0	0	0	0
	Sub Total	7,511	7,950	5,156	8,572	9,551
9k	Repairs - Store	449	0	63	0	0
34	Interest On Deposit	271	285	0	325	325
38	Prior Years Adjustment	44	0	0	0	0
39	Bonus	0	0	0	0	0
34k	Interest On Loan	0	0	0	0	0
	Total	8,275	8,235	5,219	8,897	9,876

NEPAL TELECOMMUNICATIONS CORPORATION  
CENTRAL OFFICE  
PROPOSED/APPROVED BUDGET FOR FY 2051/52(1994/1995)  
ADMINISTRATIVE EXPENSES

(7) 極西部通信局

Rs. in Thousands

Code No.	Particulars Fiscal Year	Actual Expenses 2049/50	Approved Budget 2050/51	8 Months Expenses 2050/51	Revised Budget 2050/51	Proposed Budget 2051/52
3002-01	Salaries	2664	2,900	1,983	2,975	3,275
..01k	Wages	0	41	1	41	40
.. 02	Provident Fund	200	275	134	215	240
.. 03	Salaries for Earned Leave	96	254	106	150	250
.. 04	Food & Clothing Allowances	1676	1,800	1,161	1,800	2,000
.. 05	House Rent Allowances	0	0	0	0	0
.. 06	Overtime Allowances	191	150	117	175	150
.. 07	Travelling Expenses	367	275	285	420	400
.. 08	Repairs - Plant & Off. Equip	41	38	31	45	45
.. 09	Repairs - Buildings	49	40	39	80	56
.. 10	Power, Heating & Lighting	1402	1,600	1,032	1,700	2,300
.. 11	Rent, Rates & Taxes	3	10	3	10	28
.. 12	Fuel For Vehicles	113	110	84	120	160
.. 13	Repairs - Vehicles	36	90	39	100	190
.. 14	Carriage	12	15	17	18	22
.. 15	Printing & Stationery	297	325	52	320	350
.. 16	Postage	17	15	11	18	20
.. 17	Substption	7	11	0	11	15
.. 18	Medical Expenses	201	250	188	250	250
.. 19	Advertisment	20	70	52	85	100
.. 20	Meeting Fees & Expenses	0	0	0	0	0
.. 21	Audit Fee & Expenses	0	0	0	0	0
.. 22	Legal & Professional Fees	0	4	1	4	5
.. 23	Office Furnishing	10	20	21	20	30
.. 24	Insurance	0	0	0	0	0
.. 25	Bank Comission	3	5	4	6	7
.. 27	Training Expenses	0	0	0	0	0
.. 28	Office Rent	54	114	62	114	148
.. 29	Entertainment	21	17	6	17	30
.. 30	Miscellaneous	103	290	141	15	15
..30k	Miscellaneous	0	0	0	310	340
.. 40	Recruitment & Meeting Fees	0	0	0	0	0
.. 41	Intelsat Rental	0	0	0	0	0
.. 42	Commitment Fees	0	0	0	0	0
.. 43	Bill Processing Expenses	0	0	0	0	0
	Sub Total	7,583	8,719	5,570	9,019	10,466
.. 9k	Repairs - Store	136	0	0	0	0
.. 34	Interest On Deposit	104	100	0	120	125
.. 38	Prior Years Adjustment	25	0	0	0	0
.. 39	Bonus	0	0	0	0	0
..34k	Interest On Loan	0	0	0	0	0
	Total	7,848	8,819	5,570	9,139	10,591

NEPAL TELECOMMUNICATIONS CORPORATION  
Additional Staff Requirement by F Year

資料 5-3-2

Post	Level	FY051/52 (1994/1995)	FY052/5 (1995/1996)	FY053/54 (1996/1997)	FY054/55 (1997/1998)	FY055/56 (1998/1999)	Total
1. Manager	10	0	0	0	0	0	0
2. Sen. Exe. Engineer	9	0	0	1	0	0	1
3. Exe. Engineer	8	1	0	0	1	0	2
4. Asst. Fiscal officer	8	1	0	0	0	0	1
5. Engineer	7	2	1	1	1	1	6
6. Sen. Acct.	7	-1	0	0	0	0	-1
7. Asst. Acct. Officer	6	0	1	0	0	0	1
8. Asst. Engineer	6	0	1	0	0	0	1
9. Asst. Adm. officer	6	1	0	0	0	0	1
10. Transmission Supervision	5	3	3	3	4	4	17
11. Pow. Supervision	5	0	0	0	0	0	0
12. Chief Asstnt	5	1	0	0	0	0	1
13. Transmission Technician	4	3	2	2	2	0	9
14. Pow. Technician	4	0	1	0	0	0	1
15. Asstant	4	1	1	1	1	0	4
16. Typist	4	0	-1	0	0	0	-1
17. Driver	3	1	0	1	0	1	3
18. Line Man	2	-1	0	0	0	0	-1
19. Helper	1	0	0	0	0	0	0
20. Boy	1	0	1	1	1	0	3
21. Watchman	1	0	2	2	2	1	7
22. Odd Jobs	1	0	0	0	0	0	0
Total		12	12	12	12	7	55

NEPAL TELECOMMUNICATIONS CORPORATION

市外線保守運用部職員現行

Existing Long Distance Maintenance Department Staff

資料 5-3-3

S/N	Post	Level	Post Sanction	Total Required Post	LDMD Post Filled	Filled from Other Dept.	LDMD Filled Post sent to other Department	To be Add/Del
1.	Manager	10	1	1	1	0	0	0
2.	Sen. Exe. Engineer	9	2	2	1	0	1	1
3.	Exe. Engineer	8	1	4	1	1	0	2
4.	Asst. Fiscal officer	8	0	1	0	0	0	1
5.	Engineer	7	7	15	6	3	0	6
6.	Acct. Officer	7	0	0	0	1	0	-1
7.	Asst. Acct. Officer	6	1	1	0	0	1	1
8.	Asst. Engineer	6	1	4	1	2	0	1
9.	Asst. Adm. officer	6	0	1	0	0	0	1
10.	Transmission Supervision	5	23	39	21	1	0	17
11.	Pow. Supervision	5	2	1	1	0	0	0
12.	Chief Asstnt	5	1	4	1	2	0	1
13.	Transmission Technician	4	36	37	28	0	6	9
14.	Power Technician	4	3	1	0	0	0	1
15.	Assistant	4	2	9	2	3	0	4
16.	Typist	4	3	1	2	0	0	-1
17.	Driver	3	3	8	3	2	0	3
18.	Line Man	2	3	0	1	0	1	-1
18.	Helper	1	1	2	0	2	1	0
20.	Boy	1	19	21	18	0	0	3
21.	Watchman	1	12	19	8	3	0	7
22.	Odd Jobs	1	5	4	3	1	1	0
Total			126	175	99	21	11	55

NEPAL TELECOMMUNICATIONS CORPORATION



## 電話普及率及び積滞

## TELEPHONE DENSITY AND NUMBER OF WAITERS

CITIES	POPULATION	ESTIMATED	TELEPHONE	TELEPHONE	WAITERS
	1992	POPULATION 1995	1995	Density TEL./100 POP.	
Ilam	13,150	13,996	250	1.79	151
Bhadrapur	15,123	16,096	750	4.66	342
Biratnager	130,129	138,500	7,000	5.05	2,655
Dharan	68,173	72,559	1,500	2.07	3,747
Dhankuta	17,155	18,259	500	2.74	95
Rajbiraj	23,847	25,381	750	2.95	244
Lahan	19,046	20,271	500	2.47	189
Janakpur	59,037	62,835	125	0.20	1,521
Birgunj	68,764	73,188	2,240	3.06	5,494
Hetauda	54,072	57,551	1,400	2.43	1,929
Bharatpur	54,730	58,251	2,000	3.43	3,375
Lalitpur	117,203	124,743	7,000	5.61	14,809
Bhaktapur	61,122	65,054	1,860	2.86	4,503
Kathmandu	419,073	446,033	25,000	5.60	74,465
Pokara	95,311	101,443	2,000	1.97	8,491
Tansen	16,169	17,209	500	2.91	210
Siddharthanagar	39,715	42,270	1,000	2.37	1,710
Butwal	39,751	42,308	1,000	2.36	2,807
Tribhuvanagar	29,152	31,027	500	1.61	366
Nepalgunj	48,656	51,786	1,960	3.78	848
Birendranagar	22,888	24,360	790	3.24	247
Dhangadi	45,094	47,995	2,000	4.17	586
Mahendranagar	65,432	69,641	1,300	1.87	257
Danak	41,419	44,084	500	1.13	651
Jalerswor	18,161	19,329	250	1.29	91
Kalaiya	22,995	24,474	250	1.02	480
Banepa & Dhulikhe	12,622	13,434	500	3.72	1,678
Taulihawa	22,933	24,408	250	1.02	443
Dipayal	12,259	13,048	200	1.53	11
Inaruwa	18,562	19,756	250	1.27	216
Malangawa	13,666	14,545	200	1.38	160
Bidur	18,862	20,075	250	1.25	771
Gaur	20,434	21,749	200	0.92	1,195
Byas	20,124	21,419	120	0.56	91
Tulsipur	22,654	24,111	500	2.07	387
TOTAL	1,767,483	1,881,188	65,395	3.48	135,215

Note : Population of each city at 1995 was estimated by using annual its growth ratio by 2.1% from 1992.

IMPORTANT SUBSCRIBERS NAME

1. JAJARKOT

- 1.1 Chief District Officer
- 1.2 District Police Office
- 1.3 District Health Post
- 1.4 Nepal Bank
- 1.5 District Development Office
- 1.6 District Education Office
- 1.7 District Court Office
- 1.8 District Water Supply Project Office
- 1.9 District Forest Office
- 1.10 District Irrigation Office
- 1.11 District Post Office
- 1.12 District Food Corporation
- 1.13 Land Reform Office
- 1.14 District Agricultural Office
- 1.15 NGO Office
- 1.16 NGO Office
- 1.17 School
- 1.18 School

## 2. MUSIKOT

- 2.1 Chief District Office
- 2.2 District Police Office
- 2.3 District Health Office
- 2.4 Nepal Bank
- 2.5 District Development Office
- 2.6 District Education Office
- 2.7 District Water Supply Project Office
- 2.8 Nepal Electricity Office
- 2.9 District Irrigation Office
- 2.10 District Forest Office
- 2.11 Agricultural Development Office
- 2.12 Agricultural Development Bank
- 2.13 District Court Office
- 2.14 NGO Office
- 2.15 School

### 3. CHAINPUR

- 3.1 Chief District Office
- 3.2 District Police Office
- 3.3 District Hospital
- 3.4 Rastriya Banijya Bank
- 3.5 Agricultural Development Bank
- 3.6 District Irrigation Office
- 3.7 School
- 3.8 District Court Office
- 3.9 Nepal Army Office
- 3.10 Royal Nepal Airlines
- 3.11 District Development Committee
- 3.12 College
- 3.13 District Forest Office
- 3.14 Nepal Food Corporation
- 3.15 District Post Office
- 3.16 District Education Office
- 3.17 District Survey Office
- 3.18 District Auditor Office
- 3.19 Agricultural Instruments Office
- 3.20 Nepal Electric Authorities Office
- 3.21 District Water Supply Office
- 3.22 District Civil Aviation Office
- 3.23 District Road Office
- 3.24 NGO Office
- 3.25 NGO Office

MINISTRY OF INFORMATION AND COMMUNICATIONS

MINISTER

SECRETARY

<p>ADMINISTRATION DIVISION</p>	<p>FREQUENCY MANAGEMENT AND TECHNOLOGY ANALYSIS DIV.</p>	<p>COMMUNICATION DIVISION</p>
<p>JOINT SECRETARY -1</p>	<p>CHIEF TECHNICAL OFFICER-1</p>	<p>JOINT SECRETARY -1</p>
<p>GENERAL ADMINIS. SEC. UNDER SECRETARY -1 SECTION OFFICER -2 ASSISTANT - 6 TYPIST - 6 DRIVER -3 OTHERS - 13</p>	<p>FREQUENCY MANAGEMENT SEC. SENIOR TECHNICAL OFFICER-1 TECHNICAL ASSISTANT -1 TECHNOLOGY ANALYSIS SEC. TECHNICAL OFFICER -1 TECHNICAL ASSISTANT -1</p>	<p>AUDIO-VISUAL AND BROADCASTING SECTION UNDER SECRETARY -1 SECTION OFFICER -2 ASSISTANT -2</p>
<p>O &amp; M AND TRAINING SECTION SECTION OFFICER -1 ASSISTANT -1</p>	<p>MONITORING (TECHNICAL) SEC. TECHNICAL OFFICER -1 TECHNICAL ASSISTANT -1</p>	<p>PRESS &amp; INFORMATION SECTION UNDER SECRETARY -1 SECTION OFFICER -1 ASSISTANT -1</p>
<p>FINANCIAL ADMINIS. (ACCOUNT) SECTION UNDER SECRETARY (ACC.)-1 ACCOUNT ASSISTANT -3</p>	<p>POLICY, PLANNING, MONITORING AND EVALUATION SECTION UNDER SECRETARY -1 SECTION OFFICER -1 ASSISTANT - 2</p>	<p>LAW AND REGULATION (LEGAL) SECTION UNDER SECRETARY (LEGAL) ASSISTANT -1</p>

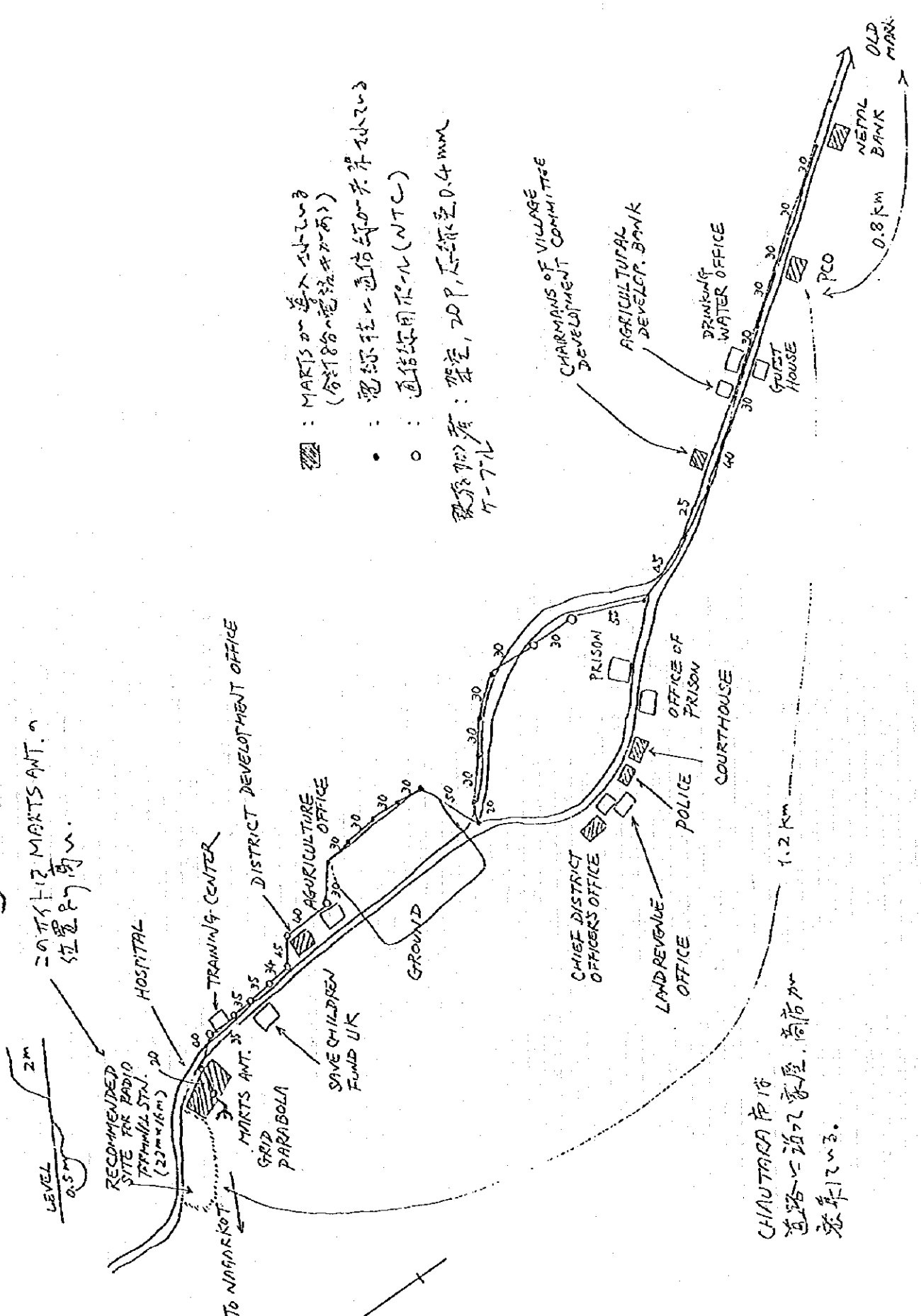
資料 5-7

## サイト調査データ

**SITE NAME:Chautara**

**GENERAL**

1. LOCATION OF THE SITE : see Fig.1
  - LOCATION OF Latitude : 27° 46' 24" N
  - LOCATION OF Longitude : 85° 43' 00" E
  
2. Altitude(m) : 1402(m)
  
3. SITE CONDITIONS
  - (a) Address of site Zone : Bagmati
    - District : Simdhupalchok
  - (b) Owner of site : Private Mr. C. R. JOSHI
  - (c) Soil Conditions : Clay
  - (d) Land Leveling : Necessary
  - (e) Vegetation at Site : No Vegetation
  - (f) Water Source : Water supply source(500m from site)
  - (g) Building : Not Available
  - (h) Tower : Not Available
  
4. ACCESS ROAD
  - (a) Road Condition : Kathmandu ~ Chautara Road
  - (b) Access Time : Approx. 4 hours drive from Kathmandu
  
5. POWER SUPPLY
  - 1) Commercial power : Available
    - (a) Characteristics of commercial power
      - Vollage : AC-220V
      - Frequency : 50Hz
      - Phase : 3 Phases
      - No. of wires : 3 wires
      - Operating time : 20~22 hrs
    - (b) Name of Company : NEA



■ : MARS 天线 (含 18 个 天线 井 井 井)  
 • : 无线电 通信 站 (NTC)  
 ○ : 通信 站 (NTC)  
 天线 高度 : 塔 空, 20 P, 总 高度 0.4 mm  
 4-7 12

20 P 12 MARS ANT. 9  
 位置 87 高 11.

CHAUTARA 市街  
 道路 - 道元 家庭 商店 加  
 密集 1200.

Fig. 1 Location of the site : Chautara



**SITE NAME:Salyan**

**GENERAL**

1. LOCATION OF THE SITE : see Fig.2
  - LOCATION OF Latitude : 28° 22' 40" N
  - LOCATION OF Longitude : 82° 10' 10" E
  
2. Altitude(m) : 1510(m)
  
3. SITE CONDITIONS
  - (a) Address of site Zone : Rapti
    - District : Salyan
  - (b) Owner of site : NTC
  - (c) Soil Conditions : Mixed soil
  - (d) Land Leveling : Not Necessary
  - (e) Vegetation at Site : Grass
  - (f) Water Source : Water supply source(1000m from site)
  - (g) Construction Materials : To be obtained from sarada river
    - (Gravel, Sand) (1 hour by vehicle)
  - (h) Building : Existing
  - (i) Tower : Not Available
  
4. ACCESS ROAD
  - (a) Road Condition : Amilie ~ Tulispur ~ Salyan road
  - (b) Access Time : Approx. 5.5 hour drive from Nepalgangi
  
5. POWER SUPPLY
  - 1) Commercial power : Available
    - (a) Characteristics of commercial power
      - Voltage : 440 V / 254 V
      - Frequency : 50 Hz
      - Phase : 3  $\Phi$  / 1  $\Phi$
      - No. of wires : 4 wires / 2 wires
      - Operating time : 24 hours
    - (b) Name of Company : NEA

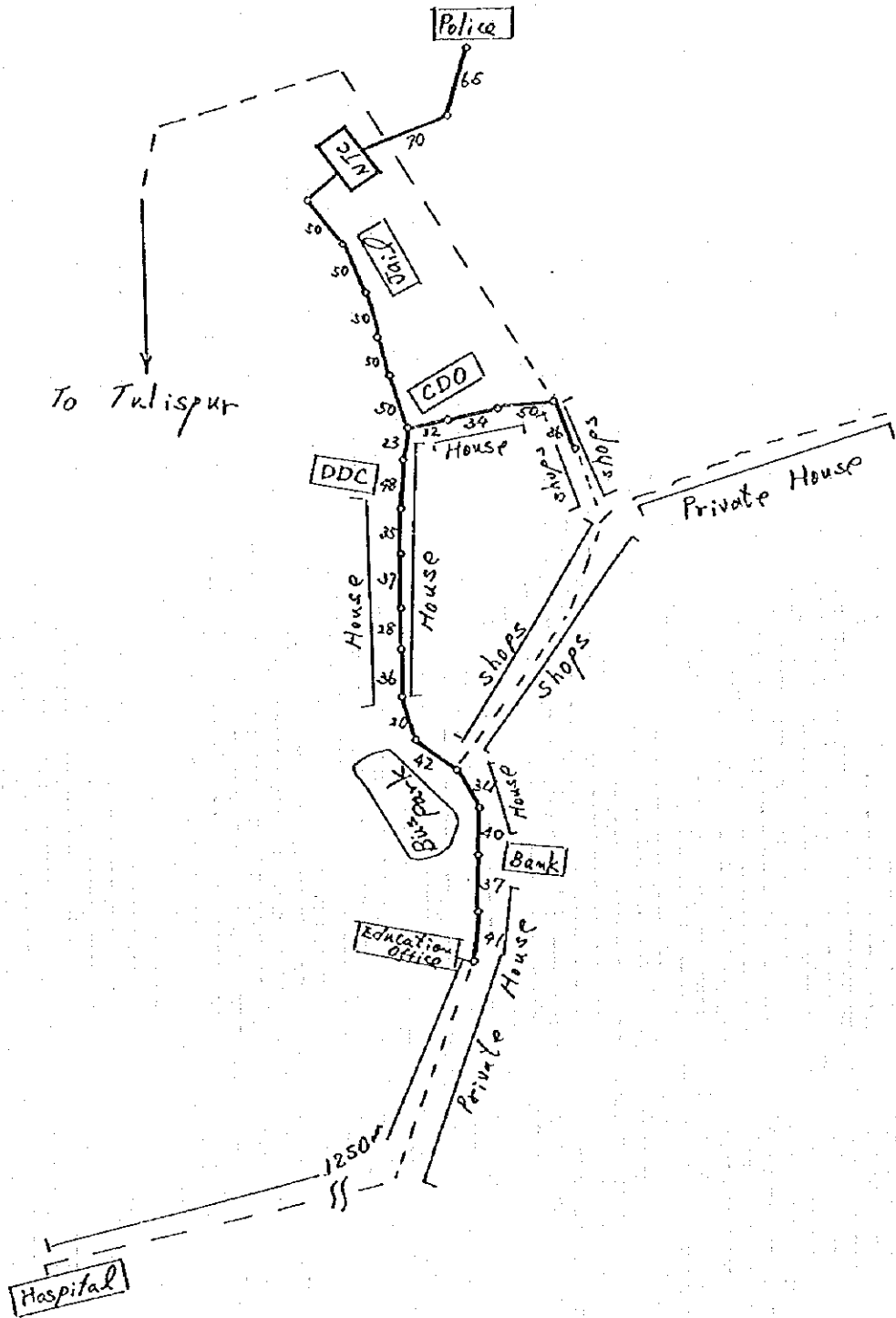


Fig.2 Location of the Site : Salyam

**SITE NAME:Pyuthan**

**GENERAL**

1. **LOCATION OF THE SITE** : see Fig. 3  
**LOCATION OF Latitude** : 28° 05' 15" N  
**LOCATION OF Longitude** : 82° 53' 05" E
  
2. **Altitude(m)** : 1310(m)
  
3. **SITE CONDITIONS**
  - (a) **Address of site Zone** : Rapli  
**District** : Pyuthan
  - (b) **Owner of site** : NTC
  - (c) **Soil Conditions** : Clay
  - (d) **Land Leveling** : Not Necessary
  - (e) **Vegetation at Site** : No Vegetation
  - (f) **Water Source** : Water tank village supply (0.2Km from site)
  - (g) **Construction Materials** : To be obtained from Jhimruk river  
**(Gravel, Sand)** (30 minutes by truck)
  - (h) **Building** : Available
  - (i) **Tower** : Not Available
  
4. **ACCESS ROAD**
  - (a) **Road Condition** : Bhalban ~ Jastper ~ Pyutan road
  - (b) **Access Time** : Approx. 4.9 hour drive from Nepalganji and  
5 minutes walk from the road
  
5. **POWER SUPPLY**
  - 1) **Commercial power** : Available
    - (a) **Characteristics of commercial power**
      - Voltage** : 440 V / 254 V
      - Frequency** : 50 Hz
      - Phase** : 3 Φ / 1 Φ
      - No. of wires** : 4 wires / 2 wires
      - Operating time** : 24 hours
    - (b) **Name of Company** : Butawal Power Co.,LTD

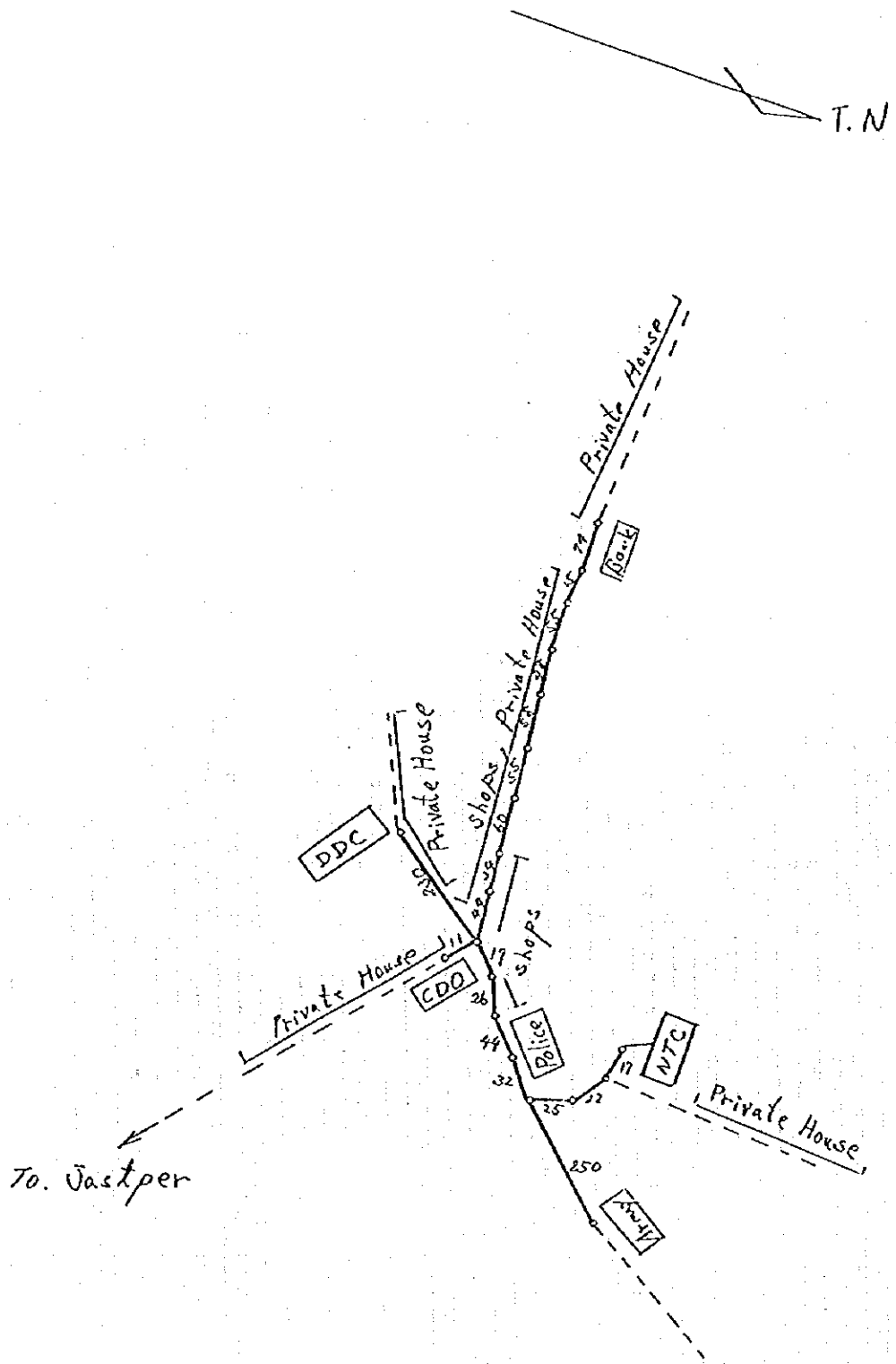


Fig: 3 Location of the Site : Pyatham

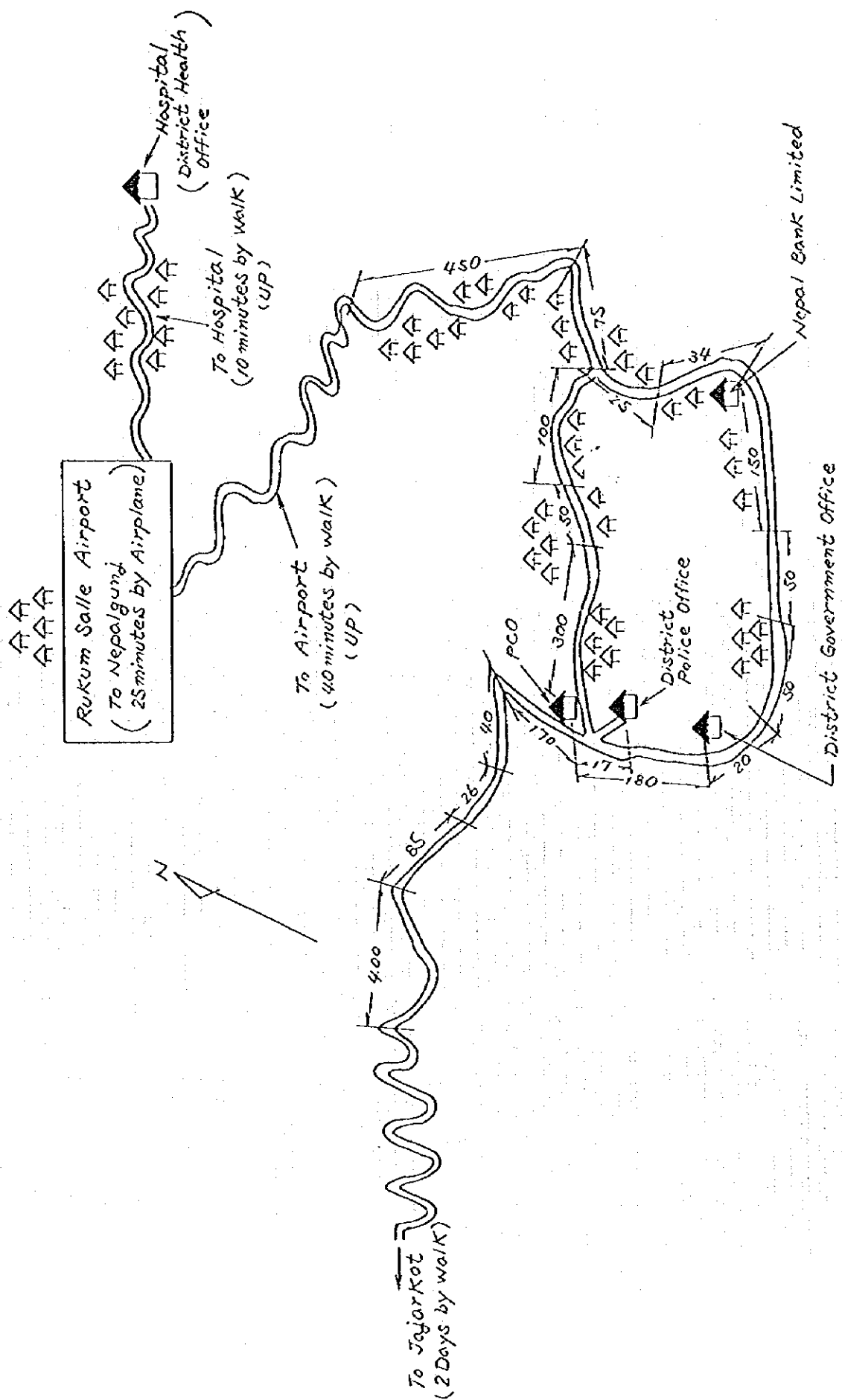
**SITE NAME:Musikot**

**GENERAL**

1. **LOCATION OF THE SITE** : see Fig. 4
  - LOCATION OF Latitude : 28° 38' 00" N
  - LOCATION OF Longitude : 82° 27' 35" E
2. **Altitude(m)** : 1630(m)
3. **SITE CONDITIONS**
  - (a) **Address of site Zone** : Rapti
    - District** : Rukum
  - (b) **Owner of site** : NTC
  - (c) **Soil Conditions** : Clay
  - (d) **Land Leveling** : Not Necessary
  - (e) **Vegetation at Site** : No Vegetation
  - (f) **Water Source** : City water supply  
(03:00-11:00 / 16:00-20:00)
  - (g) **Construction Materials** : To be obtained from Sani Bheri river  
(Gravel, Sand) (2 hours walk)
  - (h) **Building** : Existing
  - (i) **Tower** : Not Available
4. **ACCESS ROAD**
  - (a) **Road Condition** : Amille ~ Tulispur ~ Shitalpati ~ Patare  
road and foot truck from Patare
  - (b) **Access Time** : Approx. 5.8 hour drive from Nepalgunji and  
3 day's walk from Patare
5. **POWER SUPPLY**
  - 1) **Commercial power** : Available
    - (a) **Characteristics of commercial power**
      - Voltage** : 440 V / 254 V
      - Frequency** : 50 Hz
      - Phase** : 3  $\Phi$  / 1  $\Phi$
      - No. of wires** : 4 wires / 2 wires
      - Operating time** : 16:00-22:00
    - (b) **Name of Company** : Sharpu Hydro Electricity

**6. OTHERS**

Nepalgunji to Rukum Airport / 25 minutes by airplane  
Rukum Airport to Site / 25 minutes walk



< Musikot 街の概観 >

Fig. 4 Location of the Site: Musikot

**SITE NAME:Libanggaon**

**GENERAL**

1. LOCATION OF THE SITE : see Fig. 5
  - LOCATION OF Latitude : 28° 18' 18" N
  - LOCATION OF Longitude : 82° 38' 27" E
  
2. Allitude(m) : 1490(m)
  
3. SITE CONDITIONS
  - (a) Address of site Zone : Rapti
    - District : Rolpa
  - (b) Owner of site : NTC
  - (c) Soil Conditions : Rocks
  - (d) Land Leveling : Necessary
  - (e) Vegetation at Site : some bushes and some pine trees
  - (f) Water Source : Stream Panerakhola
    - (Approx. 1.5Km from site)
  - (g) Construction Materials : To be obtained from Madi river
    - (Gravel, Sand) (3 hour by truck)
  - (h) Building : Not Existing
  - (i) Tower : Not Available
  
4. ACCESS ROAD
  - (a) Road Condition : Bhalban ~ Jastper ~ Libang road
  - (b) Access Time : Approx. 6.7 hour drive from Nepalgangi
  
5. POWER SUPPLY
  - 1) Commercial power : Not Available

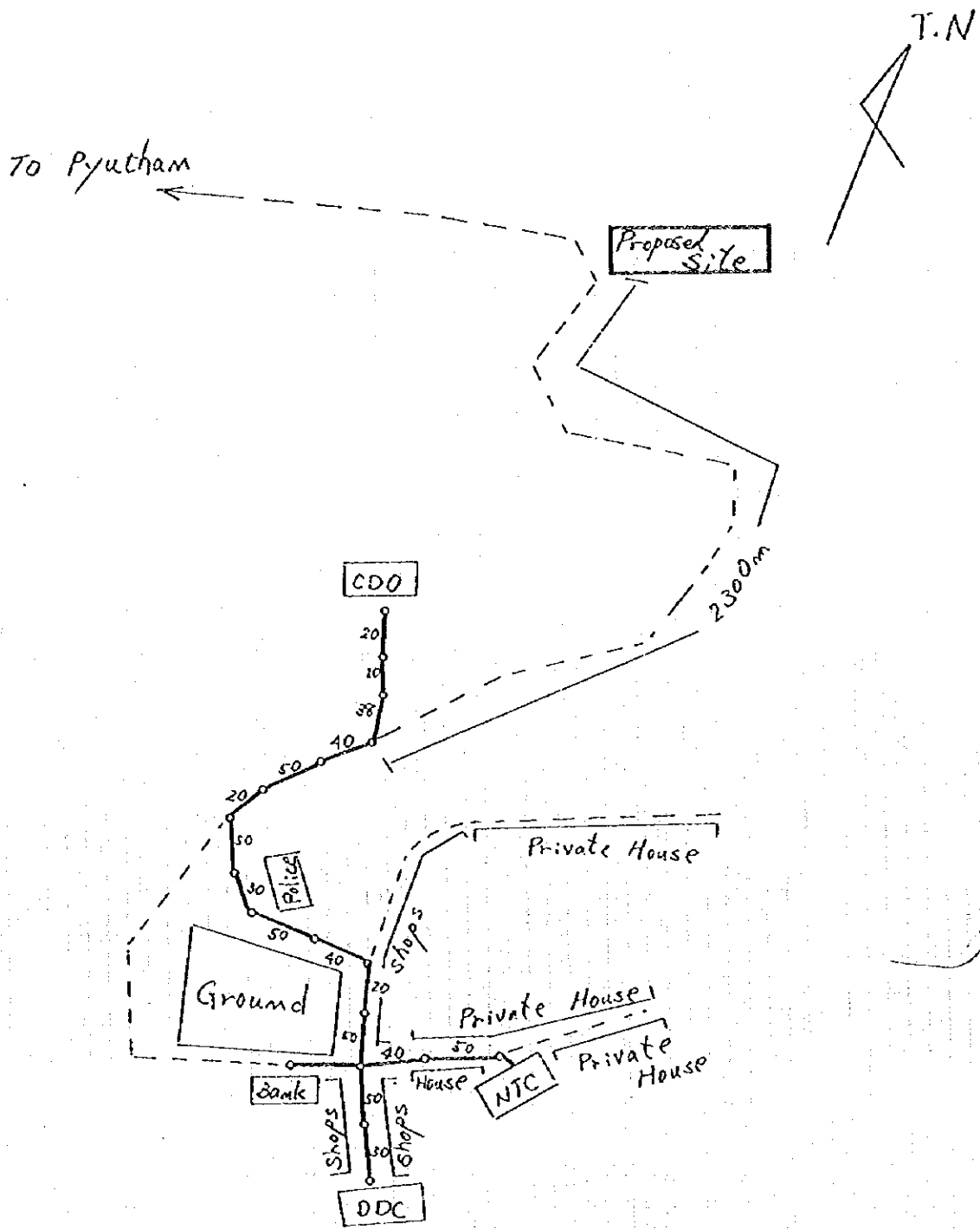


Fig. 5 Location of the site : Libanggaom



**SITE NAME:Dailekh**

**GENERAL**

1. LOCATION OF THE SITE : see Fig. 6
  - LOCATION OF Latitude : 28° 50' 55" N
  - LOCATION OF Longitude : 81° 43' 05" E
  
2. Altitude(m) : 1448(m)
  
3. SITE CONDITIONS
  - (a) Address of site Zone : Bheri
    - District : Dailekh
  - (b) Owner of site : NTC
  - (c) Soil Conditions : Gravel mixed
  - (d) Land Leveling : Not Necessary
  - (e) Vegetation at Site : No Vegetation
  - (f) Water Source : City Water supply(Approx 1 Km from site)
  - (g) Construction Materials : To be obtained from river
    - (Gravel, Sand) (6 hours walk)
  - (h) Building : Existing
  - (h) Tower : Not Available
  
4. ACCESS ROAD
  - (a) Road Condition : Kohalpur ~ Sulket ~ Gurase road and on foot track from Gurase
  - (b) Access Time : Approx. 4.7 hour drive from Nepalganji and 2 day's walk from Gurase
  
5. POWER SUPPLY
  - 1) Commercial power : Not Available

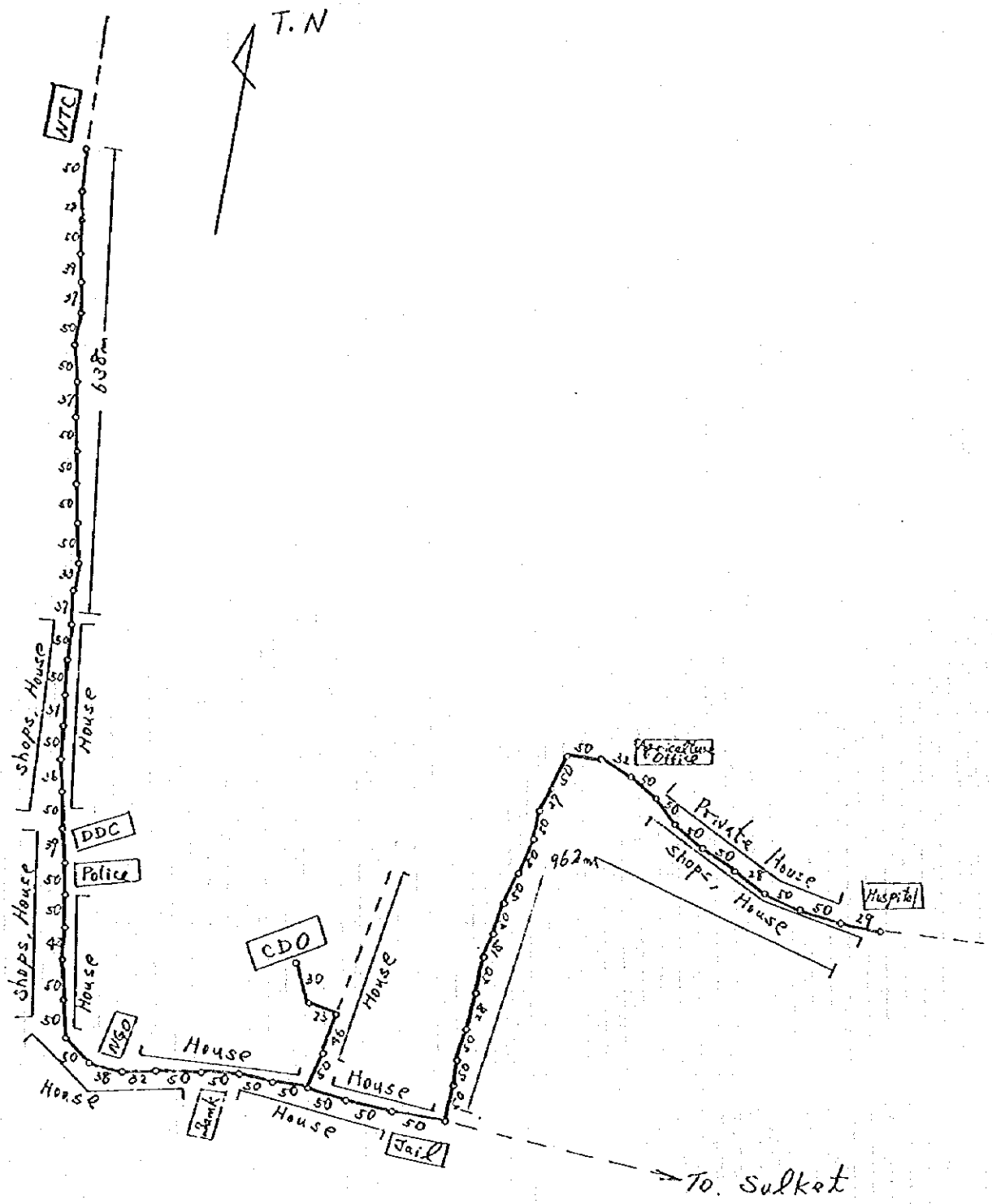


Fig. 6 Location of the site : Dailekh

**SITE NAME:Jajarkot**

**GENERAL**

1. **LOCATION OF THE SITE** : see Fig. 7
- LOCATION OF Latitude** : 28° 41' 50" N
- LOCATION OF Longitude** : 82° 11' 30" E
2. **Altitude(m)** : 1260(m)
3. **SITE CONDITIONS**
  - (a) **Address of site Zone** : Rapti
  - District** : Jajarkot
  - (b) **Owner of site** : NTC
  - (c) **Soil Conditions** : Gravel mixed
  - (d) **Land Leveling** : Not Necessary
  - (e) **Vegetation at Site** : No Vegetation
  - (f) **Water Source** : City water supply  
(Approx.200m from site)
  - (g) **Construction Materials** : To be obtained from Bheri river  
(Gravel, Sand) (1.5 hours walk)
  - (h) **Building** :Existing
  - (i) **Tower** :Not Available
4. **ACCESS ROAD**
  - (a) **Road Condition** : Amille ~Tulispur ~Shitalpali ~Chakurigat  
road and on foot track from Chakurigat
  - (b) **Access Time** : Approx.5.6 hour drive from Nepalganji and  
4 day's walk from Chakurigat
5. **POWER SUPPLY**
  - 1) **Commercial power** : Available
    - (a) **Characteristics of commercial power**
      - Voltage** :440 V / 254 V
      - Frequency** :50 Hz
      - Phase** : 3  $\Phi$  / 1  $\Phi$
      - No. of wires** :4 wires / 2 wires
      - Operating time** 18:00-07:00
    - (b) **Name of Company** :NEA
  - 2) **Power Plant** :Small Hydro system
6. **OTHERS**

Nepalgunji to chaurjahari Airport / 25 minutes by airplane  
Chaurjahari Airport to site / 4 hours walk

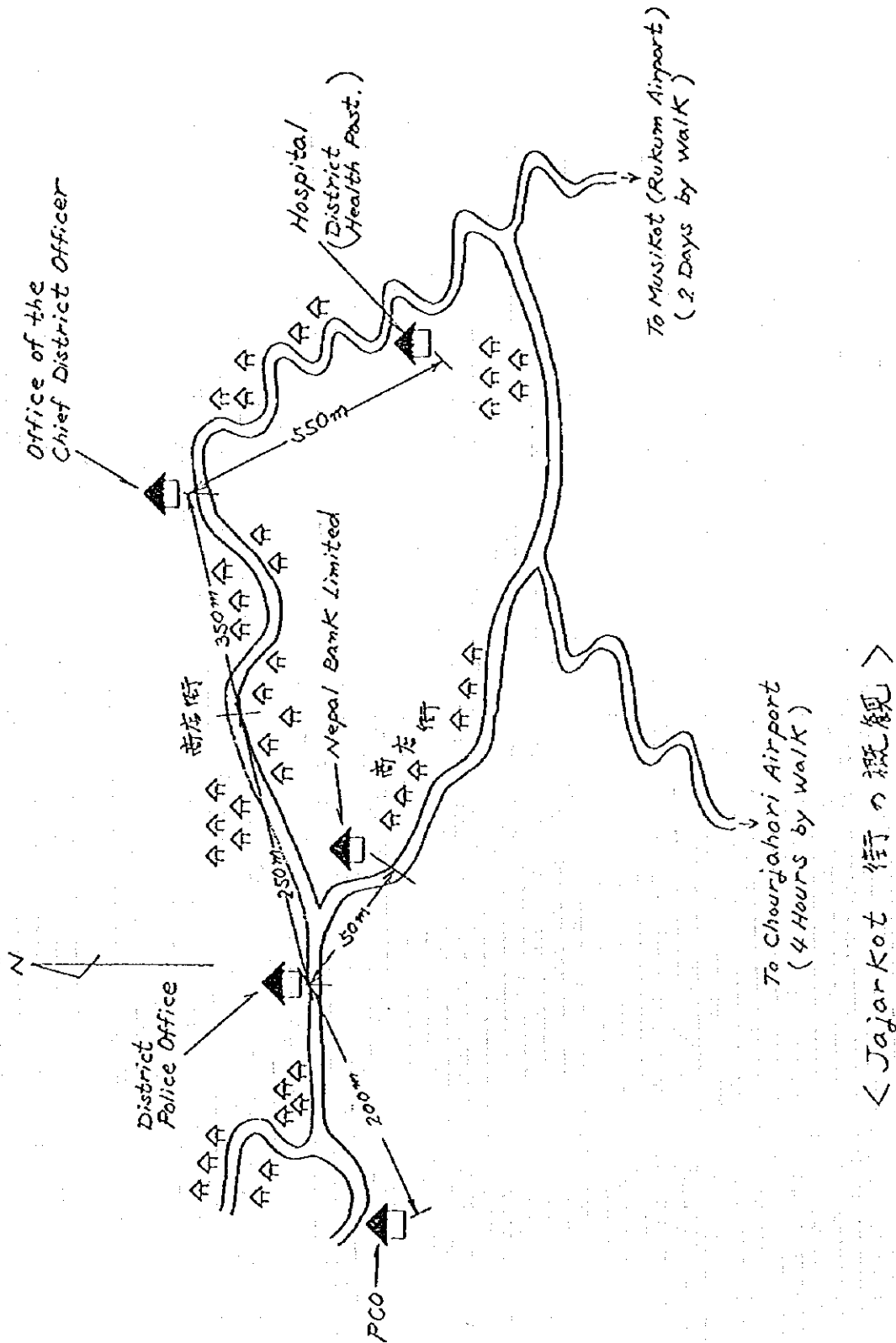
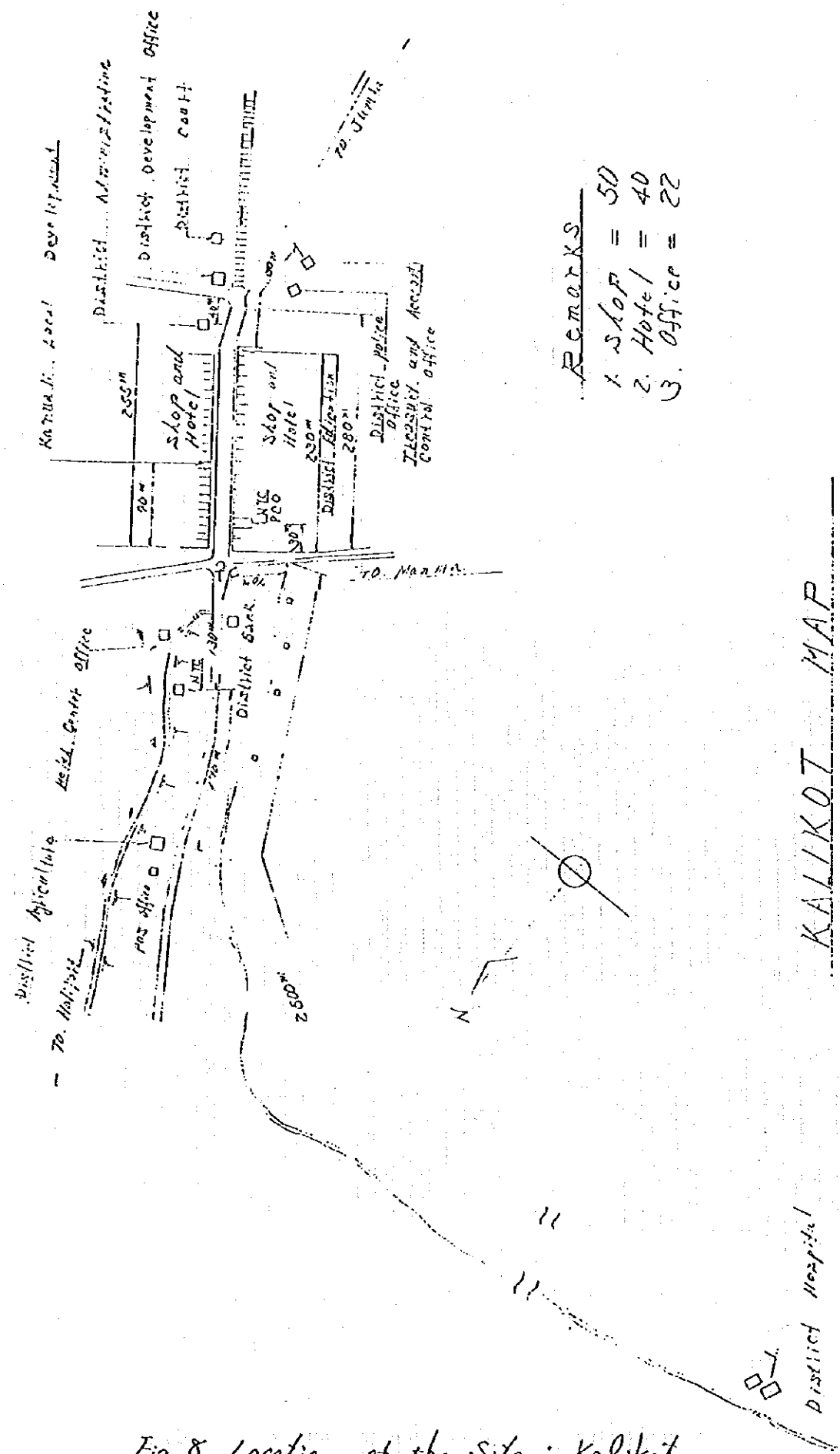


Fig. 7 Location of the Site : Jajarkot

**SITE NAME:Kalikot(Mamma)**

**GENERAL**

1. **LOCATION OF THE SITE** : see Fig. 8
  - LOCATION OF Latitude : 29° 08' 20" N
  - LOCATION OF Longitude : 81° 35' 40" E
  
2. **Altitude(m)** : 1190(m)
  
3. **SITE CONDITIONS**
  - (a) **Address of site Zone** : Karnal
  - District** : Kalikot
  - (b) **Owner of site** : NTC
  - (c) **Soil Conditions** : Rock
  - (d) **Land Leveling** : Necessary
  - (e) **Vegetation at Site** : Grass
  - (f) **Water Source** : City Water available 6-9am ,5-7 pm  
(200m from site)
  - (g) **Construction Materials** : To be obtained from Tila river or Karnali river  
(Gravel, Sand) (one day walk)
  - (h) **Building** : Not Available
  - (h) **Tower** : Not Available
  
4. **ACCESS ROAD**
  - (a) **Road Condition** : Kohalpur ~ Sulket ~ Gurase road and  
on foot track from Gurase
  - (b) **Access Time** : Approx. 4.7 hour drive from Nepalganji and  
5 day's walk from Gurase
  
5. **POWER SUPPLY**
  - 1) **Commercial power** : Not Available



- REMARKS
1. Shop = 50
  2. Hotel = 40
  3. Office = 22

Fig. 8 Location of the Site : Kalikot

**SITE NAME: Jumla**

**GENERAL**

1. LOCATION OF THE SITE : see Fig. 9
  - LOCATION OF Latitude : 29° 16' 17" N
  - LOCATION OF Longitude : 82° 10' 20" E
2. Altitude(m) : 2340(m)
3. SITE CONDITIONS
  - (a) Address of site Zone : Karnali
    - District : Jumla
  - (b) Owner of site : NTC
  - (c) Soil Conditions : Gravel with sand
  - (d) Land Leveling : Not Necessary
  - (e) Vegetation at Site : No Vegetation
  - (f) Water Source : Jogar river(300m from site)
  - (g) Construction Materials : To be obtained from Jogar river
    - (Gravel, Sand) (Approx. 30 minutes walk)
  - (h) Building : Not Available
  - (i) Tower : Not Available
4. ACCESS ROAD
  - (a) Road Condition : Kohalpur~Sulket~Gurase~road  
and on foot track from Gurase
  - (b) Access Time : Approx. 4.7 hour drive from Nepalgunji and  
11 day's walk from Gurase
5. POWER SUPPLY
  - 1) Commercial power : Available
    - (a) Characteristics of commercial power
      - Voltage : 220 V
      - Frequency : 50 Hz
      - Phase : 3  $\phi$
      - No. of wires : 3 wires
      - Operating time : 24 hours
    - (b) Name of Company : NEA
  - 2) : Power Plant : Small Hydro system
6. OTHERS
  - Nepalgunji to Jumla Airport / 60 minutes by airplane
  - Jumla Airport to site / 25 minutes walk

- REMARKS
1. Shop = 94
  2. Hotel = 30
  3. Office = 9

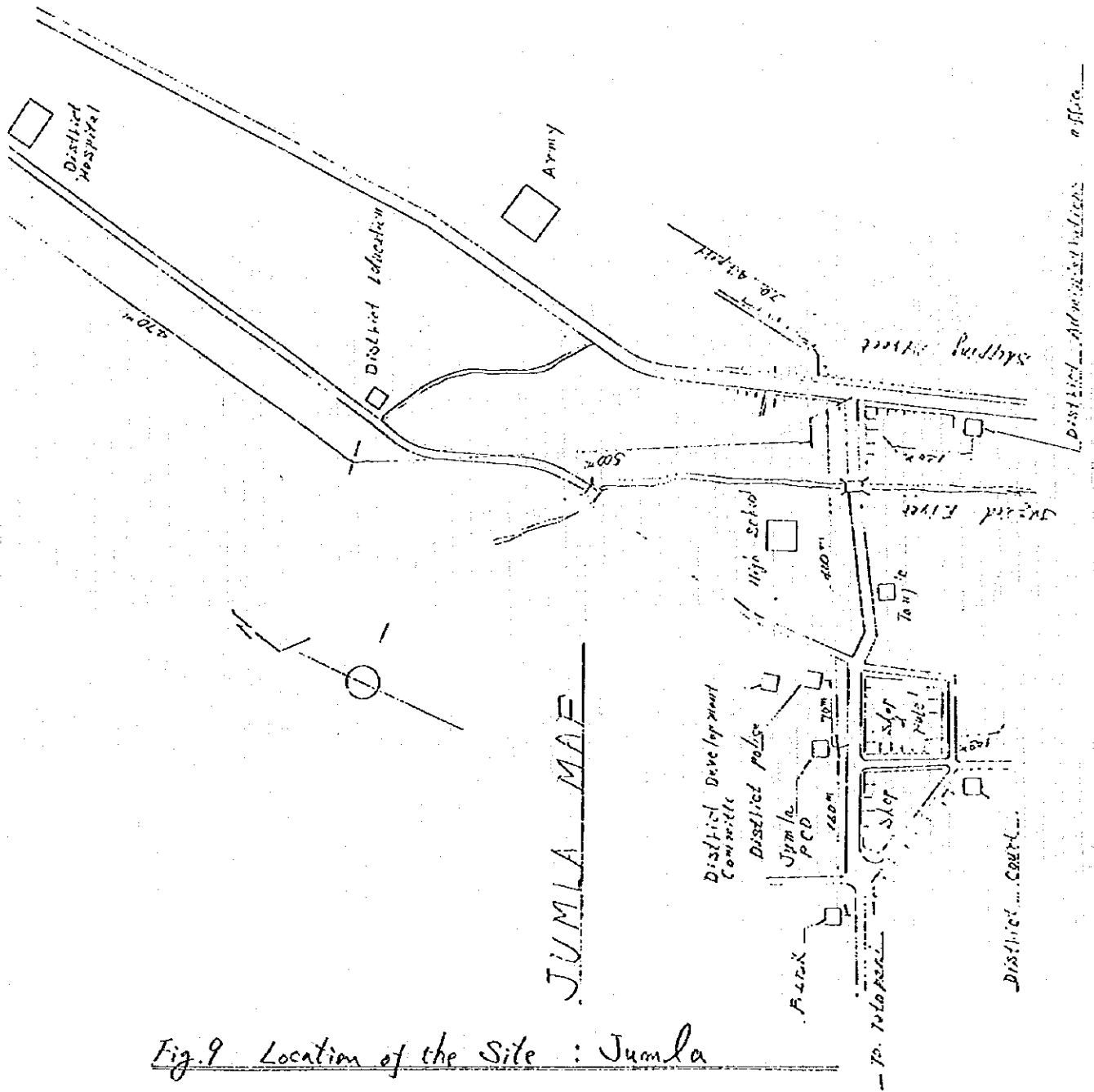


Fig.9 Location of the Site : Jumla



**SITE NAME: Martadi**

**GENERAL**

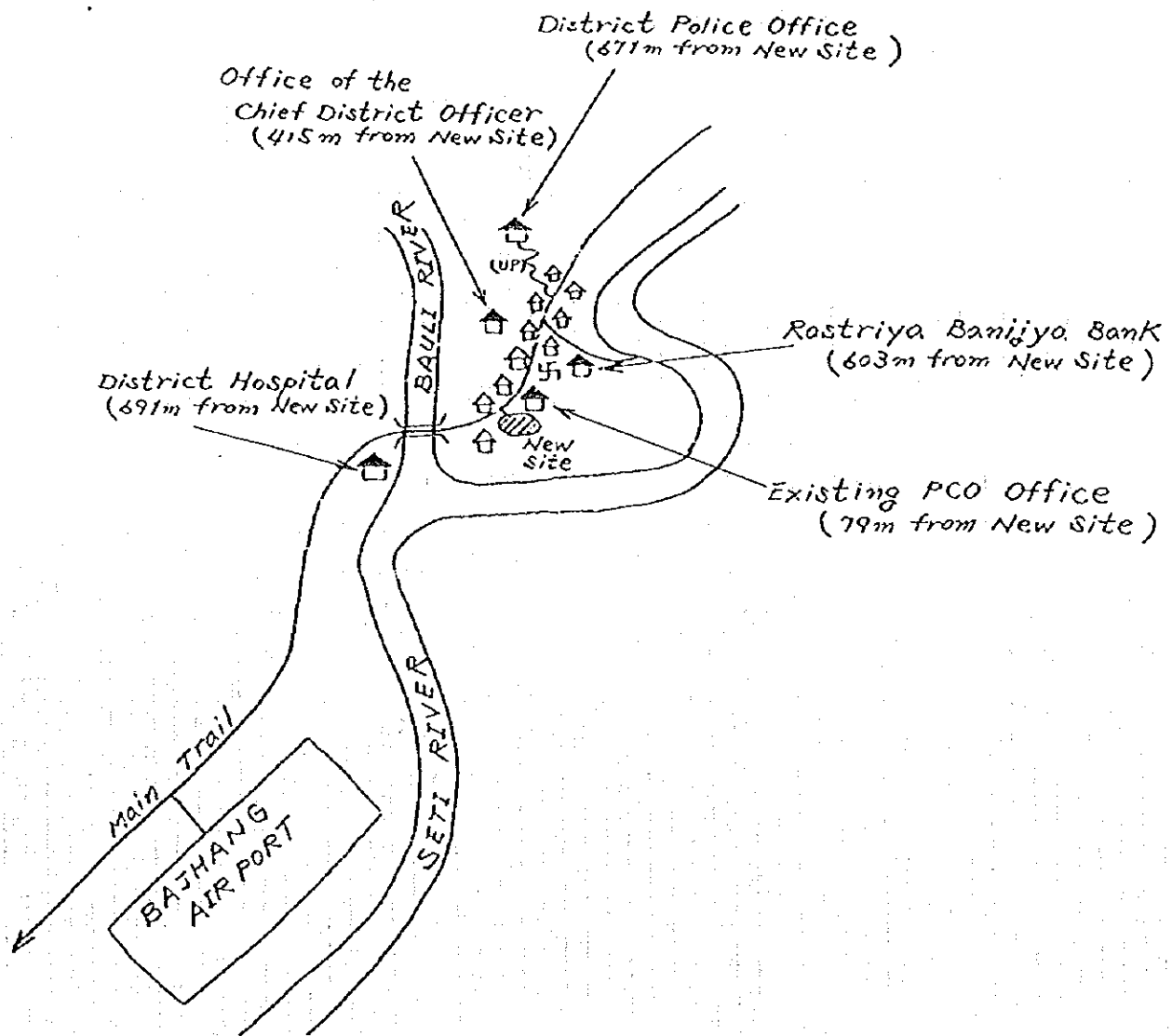
1. LOCATION OF THE SITE : see Fig. 10  
 LOCATION OF Latitude : 29° 27' 29" N  
 LOCATION OF Longitude : 81° 28' 44" E
2. Altitude(m) : 1300(m)
3. SITE CONDITIONS
  - (a) Address of site Zone : Seti  
 District : Bajura
  - (b) Owner of site : NTC
  - (c) Soil Conditions : Sandy
  - (d) Land Leveling : Not Necessary
  - (e) Vegetation at Site : Grass
  - (f) Water Source : Available
  - (h) Building : Not Available
  - (i) Tower : Not Available
4. ACCESS ROAD
  - (a) Road Condition : Atariya ~Bhatkada ~S.Doti ~Plout road  
 and on foot track from Plout
  - (b) Access Time : Approx. 7.7 hour drive from Dhangadhi and  
 3 day's walk from Plout
5. POWER SUPPLY
  - 1) Commercial power : Not Available  
 Voltage : 440 V / 254 V  
 Frequency : 50 Hz  
 Phase : 3 Φ  
 No. of wires : 4 wires / 2 wires  
 Operating time : 24 hours  
 (But the power supply is much irregular)
  - (b) Name of Company : NEA
  - 2) :Power Plant : Small Hydro system
6. OTHERS  
 Nepalgunji to Satebagar Airport / 30 minutes by airplane  
 Safabagar Airport to site / 2day's walk

**SITE NAME:Chainpur**

**GENERAL**

1. **LOCATION OF THE SITE** : see Fig. 11
    - LOCATION OF Latitude** : 29° 33' 20" N
    - LOCATION OF Longitude** : 81° 12' 20" E
  2. **Altitude(m)** : 1300(m)
  3. **SITE CONDITIONS**
    - (a) **Address of site Zone** : Seti
      - District** : Bajhang
    - (b) **Owner of site** : NTC
    - (c) **Soil Conditions** : Sandy
    - (d) **Land Leveling** : Not Necessary
    - (e) **Vegetation at Site** : Grass
    - (f) **Water Source** : Water supply distributrion line  
(Approx. 50m from site)
    - (g) **Construction Materials** : To be obtained from Seti river  
(Gravel, Sand) (Approx. 10 minutes walk)
    - (h) **Building** : Not Available
    - (i) **Tower** : Not Existing
  4. **ACCESS ROAD**
    - (a) **Road Condition** : Atariya~Bhalkada~Gopghat road  
and on foot track from Gopghat
    - (b) **Access Time** : Approx.5.5 hour drive from Dhangadhi and  
6 day's walk from Gopghat
  5. **POWER SUPPLY**
    - 1) **Commercial power** : Available
      - (a) **Characteristics of commercial power**
        - Voltage** : 440 V / 254 V
        - Frequency** : 50 Hz
        - Phase** : 3  $\Phi$
        - No. of wires** : 4 wires / 2 wires
        - Operating time** : 24 hours
    - (b) **Name of Company** : Swima Electric Limited. (Vender NEA)
  - 2) **Power Plant** : Small Hydro system
6. **OTHERS**
  - Nepalgunji to Bajhang Airport / 45 minutes by airplane
  - Bajhang Airport to Site / 45 minutes walk

Guide Map to Site of Chainpur PCO  
(19 May '95)



To S. Doti, Bantalekh, Royal

Access Time :

Nepalgunj — Bajhang  
45 minutes by Airplane

Bajhang — Chainpur  
45 minutes by Walk

Fig. 11 Location of the Site: Chainpur

TELECOMMUNICATION TARIFF

2052

(1995)

PREPARED BY :

M.K. Shrestha

Executive Operation Officer

Nepal Telecommunications Corporation

Business Management Department

Traffic and Tariff Section

TELEPHONE SERVICE

Nepal Telecommunications Corporation provides various category of telephone services to their customers. The charges of those services are given below:

1. DEPOSIT AMOUNT

Customers are required to deposit fixed amount for telephone installation, which is refundable at the time of termination of service. The deposit amount has been fixed on the basis of region as given below:

(a) Deposit amount for ordinary telephone and MARTS (Multi Access Radio Telephone System).

1. Deposit Rs. 5000/- for following stations  
(Telephone exchange capacity above 2000 lines)  
Bhaktapur, Bharatpur, Bhairahawa, Biratnagar, Birgunj, Butwal, Dharan, Janakpur, Kathmandu, Nepalgunj, Patan, and Pokhara.
2. Deposit Rs. 3000/- for following stations  
(Telephone exchange capacity below 2000 lines in Terai Region).  
Bhadrapur, Damak, Gaur, Ghorai, Hetauda, Inerua, Itahari, Jaleswar, Kalaiya, Krishnanagar, Malangwa, Rajbiraj, Simra, Sirha, Surkhet, Taulihawa, and Tulsipur.
3. Deposit Rs. 2000/- for following stations  
(Telephone exchange capacity below 2000 lines in Hilly Region)  
Banepa, Dhankuta, Tansen (Palpa) and Triuli.
4. Deposit Rs. 1000/- for following stations:  
(Remote and Far western Region)  
Dhangadi, Uipayal and Mahendranagar.

Local telephone call, operator assisted trunk telephone call and STD (Subscriber Trunk Dialing) call will be available to the customer from the above deposit amount.

Contd....

(b) But deposit Rs. 5000/- is compulsory for Ruler and VHF (Radio) telephone.

(c) Deposit amount for extension SET	Rs. 500/-
Deposit amount for ICF set	
With one extension	Rs. 7000/-
With two extension	Rs. 8000/-

(d) Interest at the rate of 5% per annum will be paid to subscriber for their deposited amount.

2. INSTALLATION FEE.

The installation fees for ordinary telephone, MARTS, Rural VHF (Radio) telephone and extension telephone connection are given below:

(a) Telephone main connection (without telephone set)	Rs. 2000/-
(b) Telephone extension connection( ,, ,, ,, )	Rs. 1000/-

Subscribers must provide telephone set themselves purchasing either from NTC or from open market.

3. SHIFTING CHARGE

Main telephone set from one house to other	Rs. 500/-
Main telephone set from one room to other	Rs. 75/-

4. CHARGE FOR THE CHANGE OF OWNER'S NAME

The charge for change of ownership is 500/- Rs. But in case of death of telephone owner, the ownership can be transferred to nearest relative by just paying 300/- Rs.

5. CHARGE FOR THE CHANGE OF NUMBER

The charge for change of telephone number is 100/- Rs.

6. MONTHLY CHARGE

(a) PERMANENT CONNECTION (More than one year)

1. Main telephone connection	Rs. 150/-
(for the first 100 calls)	
After that each additional call	Rs. 1/-
2. Extension set for each	Rs. 100/-

Contd...

3. MARTS TELEPHONE

- 3.1 The monthly charge for MARTS telephone in Kathmandu valley is Rs. 300/- for the first 300 calls. After that the charge for each additional call is Rs. 1/- (But call is charged every 3 minutes).
- 3.2 Outside Kathmandu valley, the monthly charge for MARTS telephone is Rs. 200/- for the first 200 calls. After that the additional charge is same as above No. 3.1
- 3.3 The charge for multi channel VHF and Radio will be same as MARTS Subscriber. But the charge for single MARTS subscriber will be same as VHF subscriber.

(b) TEMPORARY CONNECTION (Less than One Year)

- |                                                           |           |
|-----------------------------------------------------------|-----------|
| 1. Main telephone connection<br>(For the first 100 calls) | Rs. 225/- |
| After that each additional call                           | Rs. 1/-   |
| 2. Extension set for each                                 | Rs. 150/- |

(c) CASUAL CONNECTION (Less than one month)

- |                                                           |           |
|-----------------------------------------------------------|-----------|
| 1. Main telephone connection<br>(For the first 100 calls) | Rs. 300/- |
| After that each additional call                           | Rs. 1/-   |
| 2. Extension set for each                                 | Rs. 200/- |

(d) TIE LINE

Tie line (cable pair), which is used for any type of circuit will be charged Rs. 2000/- per annum per pair.

CHARGE FOR ADDITIONAL FACILITIES

The monthly charges for additional facilities in digital, rural and MARTS Telephone are as follows:

(1) LOCKING KEY NUMBER

The following facilities are included in locking key facilities.

- (a) Originating restriction
- (b) Variable transfer
- (c) Absentee service
- (d) Wake up service

The monthly charge for this service is Rs. 150/-

Contd.,

(2) ABBREVIATED DIALING

5 numbers of code will be allowed for one subscriber, the charge for each code is Rs. 25/-

(3) HUNTING TELEPHONE

(a) The minimum charge of one telephone line is levied for 1 to 3 numbers of telephone line.

(b) The minimum charge of two telephone line are levied for 4 to 6 numbers of telephone line.

(c) If demand is more than above will be charged in same procedure as above.

(4) HOME METER

Monthly charge for each meter is Rs. 200/-

(5) SOLAR EQUIPMENT

Monthly rental charge for each is Rs.200/-

8. PRIVATE EXCHANGE BOARD

The monthly charge of private exchange board is as below:

- |                                 |           |
|---------------------------------|-----------|
| (a) Up to 25 lines capacity     | Rs. 200/- |
| (b) Up to 50 lines capacity     | Rs. 300/- |
| (c) More than 50 lines capacity | Rs. 500/- |

9. LATE FEE

1. The late fee will be charged 3.5 percent from the last date of payment, but the late fee will be limited upto 20 percent of due only.
2. NTC can block the telephone line of the subscriber who has not paid their due along with 3.5% late fee within one month after the last date of payment.
3. If the subscriber wants to open the blocked line, he has to pay all due along with late fee within second month after the last date of payment.
4. If the subscriber has not paid all dues with late fee within 60 days after the last date of payment the line will be disconnected.
5. The disconnected line will be reconnect, if the subscriber has paid all due along with late fee and additional charge Rs.2000/ within 8 months.



TELEGRAM SERVICE

A. TELEGRAM ADDRESS

Subscribers, who wish to use short address for their incoming telegram they should submit written application along with following amounts:

- |                                |           |
|--------------------------------|-----------|
| 1. For a period up to 3 months | Rs. 50/-  |
| 2. For a period up to 6 months | Rs. 70/-  |
| 3. For a period up to 9 months | Rs. 85/-  |
| 4. For a period up to one year | Rs. 100/- |
5. The short address should be written in a single word not more than 10 letters.

B. CHARGE FOR TELEGRAM

1.1 <u>Telegram in Devnagari</u>	<u>Ordinary</u>	<u>Urgent</u>
For the first 30 letters including digits and punctuation marks.	3/-	Rs. 6/-
Each additional letter, digit and punctuation mark.	Rs. 0.05	Rs. 0.10
1.2 <u>Telegram in English</u>		
For the first 30 words including digits and punctuation marks.	Rs. 3/-	Rs. 6/-
Each additional word, digit and punctuation mark.	Rs. 0.25	Rs. 0.50
2. <u>PRESS TELEGRAM</u>		
2.1 <u>Telegram in Devnagari</u>		
For the first 50 letters including digits and punctuation marks.	Rs. 1/-	Rs. 2/-
Each additional letter, digit and punctuation mark.	Rs. 0.05	Rs. 0.10
2.2 <u>TELEGRAM IN ENGLISH</u>		
For the first 50 words including digits and punctuation marks.	Rs. 3/-	Rs. 6/-
Each additional 5 words, digits and punctuation marks.	Rs. 0.25	Rs. 0.50

TRUNK TELEPHONE SERVICE

A. CHARGE FOR TRUNK TELEPHONE CALL

1. Charge for STD call

The charging system of STD call is in unit pulse basis.

2. Charge for operator assisted call

The minimum chargeable duration for operator assisted call is 3 minutes and there after the charge will be counted in minute basis.

2.a Charge for person to person call

Person to person call is made when subscriber wished to speak to particular person at the distant end. In this case one minute's extra charge will be added in the total amount of call.

2.b Cancellation Charge

If a call is cancelled due to particular person not available, the cancellation charge is one minute's call charge or one third of three minutes charge. But nothing will be charged for cancellation of call due to technical trouble or unsatisfactory reception.

3. TRUNK TELEPHONE CALL CHARGE

1. (a) CHARGE FOR THE PERIOD (FROM 7 AM TO 9 PM) NORMAL PERIOD

Distance KM	Stage	STD Call	Operator Assisted Call			
			PCO and Stations where STD is not available.		Station where STD is available.	
		For One minute	Minimum 3 Minutes	Each addi- tional minute	Minimum 3 minutes	Each addi- tional minute
0 - 25	A	Rs. 1.20	Rs. 3.60	Rs. 1.20	Rs. 4.32	Rs. 1.44
26 - 50	B	Rs. 2.40	Rs. 7.20	Rs. 2.40	Rs. 8.64	Rs. 2.88
51 - 100	C	Rs. 4.80	Rs. 14.40	Rs. 4.80	Rs. 17.28	Rs. 2.76
100 & 200	D	Rs. 7.20	Rs. 21.60	Rs. 7.20	Rs. 25.92	Rs. 8.64
above 200	E	Rs. 9.60	Rs. 28.80	Rs. 8.60	Rs. 34.56	Rs. 11.52

(b) REDUCED CHARGE FOR THE PERIOD FROM 9 PM TO 7 AM

0.-25	AA	Rs. .80	Rs 2.40	Rs .80	Rs. 2.80	Rs .96
26- 50	B	Rs 1.60	Rs 4.80	Rs 1.60	Rs 6.76	Rs 1.92
51-100	C	Rs. 3.20	Rs 9.60	Rs. 3.20	Rs 11.52	Rs 3.94
100-200	D	Rs. 4.80	Rs 14.40	Rs. 4.80	Rs 17.28	Rs. 5.76
above 200	E	Rs 6.40	Rs 19.20	Rs. 6.40	Rs 23.04	Rs 7.68

- The charge for STD, PCO and Stations where STD is not available is same.
- The minimum charge for PCO and operator assisted call is 3 minutes.
- Trunk Telephone Call charges are shown in Annex I to X.

WIRELESS CALL CHARGE

The charge of call, which is made through wireless set is given as below:

<u>Minimum 3 minutes</u>		<u>Each Additional Minutes</u>	
<u>Ordinary</u>	<u>Urgent</u>	<u>Ordinary</u>	<u>Urgent</u>
Rs. 5.00	Rs. 10.00	Rs. 2.00	Rs. 4.00

DOMESTIC TRUNK TELEPHONE CALL CHARGE

(a) Charge for the period from 7 AM to 9 PM

Ex	STD Call for One Minute	Operator Assisted Call			
		STD & Station where STD is not available		Station where STD is available	
		Minimum 3 Minutes	Each Additional Minute	Minimum 3 minutes	Each Additional Minute
A	Rs. 1.20	Rs. 3.60	Rs. 1.20	Rs. 4.32	Rs. 1.44
B	Rs. 2.40	Rs. 7.20	Rs. 2.40	Rs. 8.64	Rs. 2.88
C	Rs. 4.80	Rs. 14.40	Rs. 4.80	Rs. 17.28	Rs. 5.76
D	Rs. 7.20	Rs. 21.60	Rs. 7.20	Rs. 25.92	Rs. 8.64
E	Rs. 9.60	Rs. 28.80	Rs. 9.60	Rs. 34.56	Rs. 11.00

(b) Reduce charge for the period from 9 PM to 7 AM

A	Rs. .80	Rs. 2.40	Rs. .80	Rs. 2.88	Rs. .96
B	Rs. 1.60	Rs. 4.80	Rs. 1.60	Rs. 5.76	Rs. 1.92
C	Rs. 3.20	Rs. 9.60	Rs. 3.20	Rs. 11.52	Rs. 3.84
D	Rs. 4.80	Rs. 14.40	Rs. 4.80	Rs. 17.28	Rs. 5.76
E	Rs. 6.40	Rs. 19.20	Rs. 6.40	Rs. 23.04	Rs. 7.68

1. Achham	E
2. Arghakhanchi	E
3. Bhojpur	E
4. Butkote	E
5. Dhangadhi	E
6. Dhangadhi	E
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2. Arghakhanchi
3. Bhojpur
4. Butkote
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73. Dhangadhi

CITY CODE NUMBER

S.No.	District	Main City	Code No.
1.	Achham	Mangal Sen	97
2.	Arghakhachi	Sandhi Khark	77
3.	Baglung	Baglung	68
4.	Baitadi	Baitadi	95
5.	Bajhang	Chainour	92
6.	Bajura	Martadi	97
7.	Banke	Nenalgunj	81
8.	Bara	Kalैया, Simra	53
9.	Bardia	Guleria, Rajapur	84
10.	Bhojpur	Bhojpur	29
11.	Chitwan	Bharatour, Tadi	56
12.	Dadeldhura	Dadeldhura	96
13.	Dailekha	Dailekha	89
14.	Dang	Tulsipur, Ghorahi, Lamahi	82
15.	Darchula	Darchula	93
16.	Dhankuta	Dhankuta, Hile	26
17.	Dhanusa	Janakpur	41
18.	Dhading	Dhading	10
19.	Dolkha	Lherikot	49
20.	Dolpa	Dune	87
21.	Doti	Silgudi, Doti, Dipawal, Rajpur	94
22.	Gorkha	Gorkha	64
23.	Gulmi	Tanghas	79
24.	Humla	Simikot	87
25.	Ilam	Ilam	27
26.	Jajarkot	Jajarkot	89
27.	Jhapa	Bhadrapur, Damak, Birtamod	23
28.	Jumla	Jumla	87
29.	Kailali	Dhangadi, Bhaiani, Tikapur	91
30.	Kalikot	Manma	67
31.	Kanchanpur	Mahendranagar	99
32.	Kapilbastu	Taulihawa, Krishnanagar	76
33.	Kaski	Pokhara	61

34.	Kathmandu	Kathmandu, Patan, Bhaktapur	1
35.	Kavrepalanchok	Dhulikhel, Banera	11
36.	Khotang	Diktel	36
37.	Lamjung	Besishahar	66
38.	Mahotari	Jaleswor	44
39.	Makawanpur	Hetauda, Bhimphedi, Bhainse	57
40.	Manang	Chame	66
41.	Morang	Biratnagar, Rangeli, Utlabari	21
42.	Mugu	Gangadi	87
43.	Mustang	Jomshom	69
44.	Myagdi	Beni	69
45.	Navalparasi	Parasi, Tribeni, Gaidakot	78
46.	Nuwakot	Trishuli	17
47.	Okhaldhunga	Okhaldhunga	37
48.	Pachathar	Phidim	24
49.	Palpa	Tansen	75
50.	Parbat	Kusma	67
51.	Parsa	Birgunj	51
52.	Pyuthan	Pyuthan	86
53.	Ramechhan	Rameshhan	48
54.	Rasuwa	Dhunchu	18
55.	Rauthat	Gaur	55
56.	Rolpa	Leevang	86
57.	Rukum	Khalanga	88
58.	Runedehi	Bhairhawa, Butwal	71 73
59.	Salyan	Salyan	88
60.	Sankhuwasabha	Khadbari, Chainpur	29
61.	Saptari	Rajbiraj	31
62.	Sarlahi	Malangwa	46
63.	Sindhuli	Sindhulimadi	47
64.	Sindhupalchok	Chautara	11
65.	Siraha	Siraha, Lahan	33
66.	Solukhumbu	Salleri, Namche Bazar	38
67.	Sunsari	Uharan, Itahari, Duhabi, Inarua	25
68.	Surkhet	Surkhet	83
69.	Syangja	Syangja	63
70.	Tanahu	Damauli, Nandipur	65
71.	Taplejung	Taplejung	24
72.	Terthum	Terthum	26
73.	Udaypur	alqhat	35

## ANNEX 'A'

## ISD/IDD CALL CHARGE

## INTERNATIONAL DIALING CODE "00"

S.N.	Country	Minimum One Minute	Each additional 6 Second Pulse	Country Code
1.	Argentina	Rs. 150.00	Rs. 15.00	51
2.	Australia	Rs. 120.00	Rs. 12.00	61
3.	Austria	Rs. 120.00	Rs. 12.00	43
4.	Bahrain	Rs. 120.00	Rs. 12.00	973
5.	Bangladesh	Rs. 15.00	Rs. 1.50	880
6.	Belgium	Rs. 120.00	Rs. 12.00	32
7.	Bhutan	Rs. 15.00	Rs. 1.50	975
8.	Brazil	Rs. 180.00	Rs. 18.00	55
9.	Brunei	Rs. 120.00	Rs. 12.00	673
10.	Canada	Rs. 120.00	Rs. 12.00	1
11.	Chile	Rs. 150.00	Rs. 15.00	56
12.	China	Rs. 135.00	Rs. 13.50	86
13.	Colombia	Rs. 150.00	Rs. 15.00	57
14.	Czech Rep.	Rs. 150.00	Rs. 15.00	42
15.	Denmark	Rs. 120.00	Rs. 12.00	45
16.	Egypt	Rs. 150.00	Rs. 15.00	30
17.	Ethiopia	Rs. 150.00	Rs. 15.00	251
18.	Finland	Rs. 120.00	Rs. 12.00	358
19.	France	Rs. 120.00	Rs. 12.00	33
20.	Germany	Rs. 120.00	Rs. 12.00	49
21.	Greece	Rs. 135.00	Rs. 13.50	30
22.	Hongkong	Rs. 120.00	Rs. 12.00	852
23.	India	Rs. 30.00	Rs. 3.00	91
24.	Indonesia	Rs. 120.00	Rs. 12.00	62
25.	Iran	Rs. 120.00	Rs. 12.00	98
26.	Ireland	Rs. 150.00	Rs. 15.00	353
27.	Israel	Rs. 150.00	Rs. 15.00	972
28.	Italy	Rs. 150.00	Rs. 15.00	39
29.	Japan	Rs. 120.00	Rs. 12.00	81
30.	Jordan	Rs. 150.00	Rs. 15.00	962
31.	Kenya	Rs. 120.00	Rs. 12.00	254
32.	Korea, Rep.	Rs. 120.00	Rs. 12.00	82
33.	Kuwait	Rs. 120.00	Rs. 12.00	965
34.	Luxembourg	Rs. 150.00	Rs. 15.00	352
35.	Malaysia	Rs. 120.00	Rs. 12.00	60
36.	Maldives	Rs. 15.00	Rs. 1.50	960
37.	Mexico	Rs. 150.00	Rs. 15.00	52
38.	Mongolia	Rs. 120.00	Rs. 12.00	976
39.	Nepal	Rs. 120.00	Rs. 12.00	95
40.	Netherlands	Rs. 120.00	Rs. 12.00	31
41.	New Zealand	Rs. 120.00	Rs. 12.00	64
42.	Norway	Rs. 120.00	Rs. 12.00	47
43.	Pakistan	Rs. 15.00	Rs. 1.50	92

44.	Papua New Guinea	Rs. 120.00	Rs. 12.00	675
45.	Philippines	Rs. 150.00	Rs. 15.00	63
46.	Poland	Rs. 150.00	Rs. 15.00	48
47.	Portugal	Rs. 150.00	Rs. 15.00	351
48.	Qatar	Rs. 120.00	Rs. 12.00	971
49.	Saudi Arabia	Rs. 120.00	Rs. 12.00	966
50.	South Africa	Rs. 150.00	Rs. 15.00	27
51.	Spain	Rs. 150.00	Rs. 15.00	34
52.	Sri Lanka	Rs. 15.00	Rs. 4.50	91
53.	Sweden	Rs. 120.00	Rs. 12.00	46
54.	Switzerland	Rs. 120.00	Rs. 12.00	41
55.	Singapore	Rs. 120.00	Rs. 12.00	65
56.	Taiwan	Rs. 120.00	Rs. 12.00	886
57.	Thailand	Rs. 120.00	Rs. 12.00	66
58.	Turkey	Rs. 150.00	Rs. 15.00	90
59.	UNE	Rs. 135.00	Rs. 13.50	971
60.	UK	Rs. 120.00	Rs. 12.00	41
61.	USA	Rs. 120.00	Rs. 12.00	1
62.	USSR (Russia)	Rs. 135.00	Rs. 13.50	7
63.	Yugoslavia	Rs. 150.00	Rs. 15.00	38
64.	Zimbabwe	Rs. 150.00	Rs. 15.00	263



OPERATOR ASSISTED CALL CHARGEFOR SAARC COUNTRY

<u>Minimum 3 Minutes</u>	<u>Each Additional 1 Min.</u>	<u>Report Fee</u>
Rs. 135.00	Rs. 45.00	Rs. 13.50

Banqladesh, Bhutan, India, Maldives, Pakistan, Srilanka

Incase of India via terrestrial link the charge is as below:

<u>Minimum 3 Minutes</u>	<u>Each Additional 1 Min.</u>	<u>Report Fee</u>
Rs. 90.00	Rs. 30.00	Rs. 9.00

GROUP I

<u>Minimum 3 Minutes</u>	<u>Additional per minutes</u>	<u>Report Fee</u>
Rs. 360.00	Rs. 120.00	Rs. 36.00

Afghanistan	Algeria	Australia	Austria
Bahrain	Belgium	Belarus	Bermuda
Brunei	Burkina Faso	Canada	Congo
Cyprus	Denmark	Faroe Island	Finland
France	Germany	Greenland	Hawaii
Hongkong	Hungary	Indonesia	Iran
Japan	Kenya	Korea DPR	Korea Rep.
Kuwait	Lesotho	Lichtenstein	Lithuania
Macao	Malawi	Malaysia	Marina Island
Mongolia	Nyanmar	Netherland	New Zealand
Norfolk Island	Norway	Oman	Papua New Guinea
Qatar	Rwanda	Saudi Arabia	Singapore
Solomon Island	Sweden	Switzerland	Syria
Taiwan	Tanzania	Thailand	Tonga
Ukraine	United Kingdom	United States of America	
Uzbekistan	Vanuatu	Venezuela	Virgene Island (USA)
Zambia.			

GROUP II

<u>Minimum 3 Minutes</u>	<u>Additional per minutes</u>	<u>Report Fee</u>
Rs. 105.00	Rs. 135.00	Rs. 10.50

Ascension	Bahamas	Cambodia	Cayman Island
China	Greece	Kazakistan	Nine Island
Peru	Puerto Rico	Russia	Swaziland
United Arab Emirates			

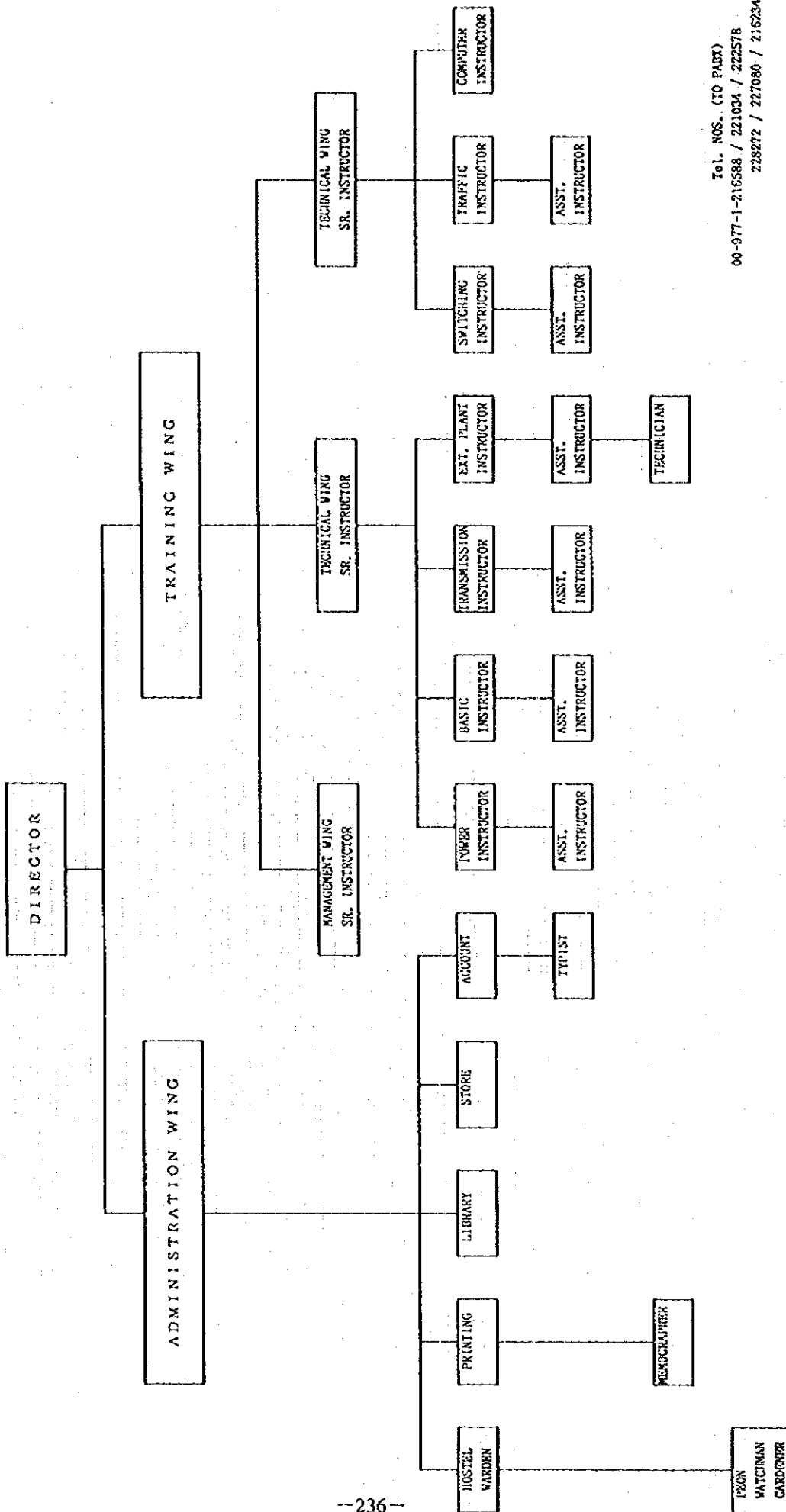
GROUP III

<u>Minimum 3 minutes</u>		<u>Additional per minute</u>	<u>Report Fee</u>
Rs. 450.00		Rs. 150.00	Rs. 45.00
Angola	Antigua	Argentina	Azores
barbados	Belize	Benin	Botswana
Bulgaria	Burundi	Cameroon	Chad
Chile	Colombia	Costarica	Croatia
Czech Rep.	Djibouti	Dominican Rep.	Egypt
Ethiopia	Fiji	French Polynesia	Gabon
Gambia	Ghana	Gibraltar	Guyana
Iceland	Iraq	Ireland	Israel
Italy	Jordan	Lebanon	Liberia
Libya	Luxembourg	Malta	Madeira
Mexico	Moldova	Morocco	Mozambique
Namibia	Nauru	Netherlands	Antilles
New Caledonia	Nicaragua	Nigeria	Panama
Paraguay	Philippines	Poland	Portugal
Reunion	Romania	Senegal	Seychelles
Sierra Leone	Slovak Rep.	Slovenia	Somali
South Africa	Spain	Sudan	Trinidad and
Tunisia	Turkey	Uganda	Tobago
Vatican City	Vietnam	Western Samoa	Uruguay
Yugoslavia	Zaire	Zimbabwe	Yemen

GROUP IV

<u>Minimum 3 minutes</u>		<u>Additional per minute</u>	<u>Report Fee</u>
Rs. 540.00		Rs. 180.00	Rs. 54.00
Alaska	Albania	Anguilla	Aruba
Bolivia	Brazil	British Antarctic Territory	Capeverde
British Indian Ocean		Canary Island	Capeverde
Central African Rep.		Comoros	Cuba
Dahomey	Dominica	Ecuador	El Salvador
Equatorial Guinea		Grenada	Guam
Guatemala	Guayana	Guinea Bissau	Haiti
Honduras	Ivory Coast	Jamaica	Isos
Leeward Island	Malagasy	Maldives	Martinique
Nauritania	Nauru	Montserrat	Nevis
Niger Rep.	Samoa (American)	Saotome and Principe	
St. Christopher	St. Croix	St. Helena	St. Kitts
St. Lucia	St. Marina	St. Thome	St. Vincent
Stone	Surinam	Togo	Turks and Caicos
Tuvalu	Virgenes	Island (UK)	Wallis & Futuna

Countries those not mentioned above will also be charge as per Group IV rate.



NEPAL TELECOMMUNICATIONS CORPORATION  
TELECOMMUNICATIONS TRAINING CENTRE

Tel. NOS. (TO PABX)  
00-977-1-216588 / 221034 / 222578  
228272 / 227080 / 216234

NEPAL TELECOMMUNICATION CORPORATION  
TELECOMMUNICATION TRAINING CENTER  
FISCAL YEAR 1994/95

S/N	COURSE	NO. OF TRAINEE	DURATION (WEEKS)	EQPT. USED
1	MARTS	10	2	SEL
2	Finicial and general management	25	2	
3	Operator cum technician	20	7	
4	Outside plant technician	23	20	
5	Regional codev. tel. training workshop	23	3	
6	Computer Network	21	1	
7	VHF operation and Maintenance	20	1	
8	Line man	13	4	
9	Refreshor course of office incharge	9	2	
10	S1240 exchange maintenance	10	16	S1240 Exchange
11	Data multiplex and programmable multiplex	5	2	
12	Photocopy machine operation & maintenance	7	2	
13	Advance dBase programming	8	4	
14	Line man	18	4	
15	Telephone set maintenance	9	2	
16	Telephone set maintenance	12	2	
17	Advance financial management	23	3	
18	P. C. application in S1240	8	2	S1240 Exchange
19	Optical fiber cable	6	1	
20	Cable network planning	14	1	
21	Optical fiber transmission	6	1	
22	Cable network planning	20	1	
23	Induction course for J. clerk	27	2	
24	Wireless operator	23	13	
25	Administrative training		4	
26	Refreshor course for E. P. supervisor	13	2	
27	Telephone set maintenance	9	2	ICF telephone
28	Refreshor course for technician	15	1	
29	Course on 3Msplicing	15	11	

NEPAL TELECOMMUNICATION CORPORATION  
TELECOMMUNICATION TRAINING CENTER  
FISCAL YEAR 1989/90

S/N	COURSE	NO. OF TRAINEE	DURATION (WEEKS)	EQPT. USED
1	Basic telecom for outside technician	18	22	
2	FAX operation	8	1	
3	Supervisor's training (TAM)	8	2	S-1240
4	Linerman course	10	8	
5	Teleprinter maintenance course	12	2	SAGEM
6	Telephone operator	19	4	
7	Outside Plant technician refresher course	13	2	
8	Outside Plant technician refresher course	19	2	
9	Teleprinter operator course	8	5	SAGEM
10	Induction course for Engineer	20	4	
11	Outside plant technician	18	18	
12	Enquiry Operator	21	12	
13	Power plant maintenance	9	8	
14	Basic telecom for outside technician	20	18	
15	Teleprinter operator	10	4	SAGEM
16	Basic digital technique	15	6	
17	Outside Supervisor course	13	2	
18	Subscriber installation & maintenance	9	1	
19	induction course for Engineer	9	3	
20	PCB repair center course	10	8	
21	Basic telecommunicatin	17	18	
22	Outside plant technician	19	20	
23	Operator position	8	1	E-108
24	Operator position	6	1	E-109
25	Operator position	6	1	E-105
26	Operator position	8	1	E-100
27	Basic digital technique	14	6	
28	Teleprinter Operator	9	3	
29	RAYCHEM TRAC aerial enclosure	5	2 Days	

NEPAL TELECOMMUNICATION CORPORATION  
TELECOMMUNICATION TRAINING CENTER  
FISCAL YEAR 1990/91

S/N	COURSE	NO. OF TRAINEE	DURATION (WEEKS)	EQPT. USED
1	Basic digital technique	12	6	
2	RLU	7	3	E-10B
3	Power plant operation	10	2	BTM
4	Outside plant record	8	2	
5	Enclosure course	19	3 Days	
6	Enclosure course	12	3 Days	
7	Underground cable splicing	8	1	
8	Induction course for Engineer	20	4	
9	Data entry operator	8	3	
10	Operation & maintenance of Switching	12	7	E-10B
11	Teletypewriter operation	9	4	SAGEM
12	Digital transmission	12	6	NOKIA
13	Junior technician	14	8	
14	Telephone set maintenance	8	2	
15	Telephone set maintenance	7	2	
16	Basic telecom for outside technician	18	18	
17	Underground cable splicing	13	6	
18	Induction course for office (Civil Engr.)	3	2	
19	Operator	7	3	12-SC
20	Power Basic	15	6	ALCATEL
21	Outside Plant Supervisor course	7	4	
22	Job description course	22	1	
23	Job description course	19	1	
24	Traffic analysis & measurement	6	2	
25	Basic digital technique	19	6	
26	Digital transmission	8	5	OKI
27	Outside plant record	9	2	
28	Introduction to KACHINA set	7	1	KACHINA VHF SET
29	MARTS	15	2	NEC
30	Power plant operation	8	1	ALCATEL
31	MCC operator	7	13	
32	Welding & soldering	8	7	
33	Basic telecom	12	17	
34	Basic digital technique	11	5	
35	MARTS	11	1	NEC
36	Hardware maintenance	11	4	S-1240
37	ALT maintenance & Hunter course	6	2	

NEPAL TELECOMMUNICATION CORPORATION  
TELECOMMUNICATION TRAINING CENTER  
FISCAL YEAR 1991/92

S/N	COURSE	NO. OF TRAINEE	DURATION (WEEKS)	EQPT. USED
1	Underground cable splicing	14	2	
2	Outside plant technician	13	16	
3	Power basic	12	6	
4	Operator	10	3	12-SO
5	MARTS	14	4	SEL
6	Fork lift operator	13	1	
7	Power operation	10	2	ALCATEL
8	Operator	8	4	12-SO
9	Telephone set maintenance	10	2	ICF telephone
10	Power operation	11	2	ALCATEL
11	Transmission basics	10	3	
12	Telephone set maintenance	11	2	ICF telephone
13	Outside supervisor course	11	3	
14	Dbase III Plus	8	2	
15	NTC accounting System (Computer)	21	5	
16	Basic telecom for outside plant technician	20	5	
17	Power operation	12	2	BTMC
18	Aerial enclosure with TRAC closure	7	3 Days	
19	PABX & ICF set maintenance	9	5	
20	TAM course	11	2	
21	Line man course	12	5	
22	Basic digital technique	6	7	
23	Basic telecom for outside technician	21	20	
24	Out side plant helper	10	5	
25	12-SO operator	10	4	12-SO Exchange
26	Outside Plant technician	20	21	
27	SAGEM teleprinter operator	8	4	SAGEM
28	Digital transmission	8	3	NOKIA
29	Digital switching	8	11	E-10B Exchange
30	MCC operator	11	3	

NEPAL TELECOMMUNICATION CORPORATION  
TELECOMMUNICATION TRAINING CENTER  
FISCAL YEAR 1992/93

S/N	COURSE	NO. OF TRAINEE	DURATION (WEEKS)	EQPT. USED
1	Instructional technique & course deve.	15	2	
2	MARTS	7	5	NEC
3	Power Basic	11	7	
4	Induction course for Engineers	7	2	
5	Air condition operation	5	3 Days	
6	Outside plant technique	21	23	
7	RLU for office incharge	7	3	
8	12SO operator	8	3	12SO Exchange
9	Telephone set maintenance	8	3	ICF telephone
10	Telex line maintenance	7	2 Days	
11	MARTS	7	4	SEL
12	Trenching & ducting	15	2 Days	
13	HF radio technique	10	4	
14	Induction course for overseer	9	3 Days	
15	U.G. cable splicing & enclosing	14	2	
16	BELL power operation	10	1	BTMC
17	Induction course for Engineer	19	3	
18	Outside course for Engineer	12	5	
19	Store management	16	2	
20	Line man	10	5	
21	Digital switching	6	15	S-1240 Exchange
22	Wireless operator	21	8	
23	Fork lift operation	7	1	
24	Store management	23	1	
25	Drop/insert MUX (MD 90)	9	1	
26	Telephone set maintenance	6	2	



NEPAL TELECOMMUNICATION CORPORATION  
TELECOMMUNICATION TRAINING CENTER  
FISCAL YEAR 1993/94

S/N	COURSE	NO. OF TRAINEE	DURATION (WEEKS)	EQPT. USED
1	Basic telecom for E.P. technique	18	8	
2	Wireless operator	22	8	
3	Photocopy machine operation & maintenance	5	1	
4	Digital Transmission Measurement	8	3	
5	Photocopy machine operation & maintenance	4	1	
6	Outside plant supervisors	21	30	
7	Course development	9	3	
8	Pouyet cabinet termination	8	2 Days	
9	Pouyet cabinet termination	11	2 Days	
10	S-1240 for Engineer	11	12	S-1240 Exchange
11	1250 operator	8	3	1250 Exchange
12	Data entry operator	6	4	
13	Power & Air condition operation (BELL)	9	2	BTMC
14	1250 operator	7	3	1250 Exchange
15	H.F. operation & maintenance	8	4	MARK IV
16	Induction course for Engineers	17	3	
17	Power & Aircondition operation	10	2	CIT
18	Refresher course in external plant	10	1	
19	Dbase IV (Ledger)	11	4	
20	Data entry operator (Ledger)	10	4	
21	Telephone set maintenance	15	2	
22	Basic telecom for E.P. technique	24	17	
23	Refresher course for office incharge	9	2	
24	Time line software	9	1	
25	Time line software	8	1	
26	Computer basis	12	7	
27	Programming in 'C' language	8	4	
28	Basic telecom for E.P. tech	23	17	
29	Financial management (for level - 5)	26	4	
30	Basic digital transmission	13	2	
31	Introduction to Satellite Earth station	11	4	
32	Introduction to packet switching	13	2	
33	Ref. course for E. P. supervisors	9	1	
34	Line man	10	5	
35	Lotus 1-2-3	10	4	
36	WordPerfect	12	4	
37	Ref. course for office incharge	10	2	
38	Induction course for Engineers	30	3	
39	Basic electricity	10	5	

NEPAL TELECOMMUNICATION CORPORATION  
TELECOMMUNICATION TRAINING CENTER  
FISCAL YEAR 1994/95

S/N	COURSE	NO. OF TRAINEE	DURATION (WEEKS)	EQPT. USED
1	MARTS	10	2	SEL
2	Financial and general management	25	2	
3	Operator cum technician	20	7	
4	Outside plant technician	23	20	
5	Regional codev. tel. training workshop	23	3	
6	Computer Network	21	1	
7	VHF operation and Maintenance	20	1	
8	Line man	15	4	
9	Refresher course of office incharge	9	2	
10	S1240 exchange maintenance	10	16	S1240 Exchange
11	Data multiplex and programmable multiplex	5	2	
12	Photocopy machine operation & maintenance	7	2	
13	Advance dBase programming	8	4	
14	Line man	18	4	
15	Telephone set maintenance	9	2	
16	Telephone set maintenance	12	2	
17	Advance financial management	23	3	
18	P. C. application in S1240	8	2	S1240 Exchange
19	Optical fiber cable	6	1	
20	Cable network planning	14	1	
21	Optical fiber transmission	6	1	
22	Cable network planning	20	1	
23	Induction course for J. clerk	27	2	
24	Wireless operator	23	13	
25	Administrative training		4	
26	Refresher course for E. P. supervisor	13	2	
27	Telephone set maintenance	9	2	ICF telephone
28	Refresher course for technician	15	1	
29	Course on splicing	15	11	

Mon 15 May 1995

NEPAL

SUPERVISION MISSION

FIFTH TELECOMMUNICATIONS PROJECT - (Credit 2364 - NEP)

AIDE MEMOIRE

1. A World Bank (IDA) mission consisting of Mr. Alberto Cruzat visited Nepal between Tuesday 2 and Tuesday 16 May 1995.

2. The mission thanks His Excellency, Mr. Pradeep Nepal, Minister of Information and Communications (MOIC); Mr. Bhoj Raj Pokhrel, Secretary, MOIC; Mr. Shankar Nath Rimal, Member, National Planning Commission (NPC); Mr. Madhab P. Ghimire, Joint Secretary, Ministry of Finance (MOF); Mr. Mahesh Kumar Karki, Under Secretary MOF; Mr. Basudev Lamichhane, Assistant Auditor General; and Mr. G. S. Bora, General Manager of NTC and his staff for their kind courtesies and the excellent cooperation received during its stay in Nepal.

**A. SECTOR REFORM**

**A - 1 PROGRESS IN ARRANGING CONSULTANCIES/TRAINING UNDER IDA CREDIT.**

3. The mission reviewed with MOIC progress in the Danish Trust Fund funded consultancy with Andersen Management Int. A/S to prepare a Tender document calling for Bids to award telecommunications operating licenses in cellular, paging and Wireless Local Loop (WLL) services. The Notes presented as Attachment 1 summarizes the issues under discussion, and the recommendations/comments made by the Mission. MOIC is going to float the Tender as soon as the MOIC Sector Reform Team presents its report on the alternatives under discussion; this report is expected to be ready in about 2 weeks. Therefore, the Tender would be floated during the third Quarter 1995. Bids would be received around November/December and the recommendations for award of licenses would be presented around January 1996.

4. The main funding for the Sector Reform is being secured from the Japanese Grant Fund (PHRD Fund). The Mission brought a draft of the "Japanese Grant Agreement" and the final version of this legal document is expected to be available in a week time. Contingent to the finalization of the Legal Agreements, the Mission discussed with MOIC about the initial consultancies which would assist in drafting a New Telecommunications Law, organizing the new Regulatory Agency (RA), with emphasize in training the potential staff, assisting MOIC in the licensing process of new and existing service providers, and assisting in the commercialization of NTC. It is expected that the consultancies will initiate its work upon signature of the PHRD Legal Agreement, around July/August 1995.

A - 2      **PROGRESS IN PRIVATE SECTOR PARTICIPATION &  
PROVISION OF NEW SERVICES.**

5.            The Nepal telecommunications sector is taking clear steps toward a multiple-entity sector with important participation of the private sector. In addition to the main developments under the Danish Trust Fund and Japanese PHRD Fund, already described, HMG/MOIC has licensed two private providers of Cable TV, Space Time Network Pvt. Ltd. and Shangri-La Pvt. Ltd. It is interesting to note that Space Time provides cable TV service through a coaxial cable network, while Shangri-La distributes the cable TV service via radio. Therefore, the current competitive environment in the provision of cable TV is similar to the future competition between the telephone provider using the traditional cable network against the provider via radio (Wireless Local Loop).

6.            Another telecommunications service where the private sector is taking the lead is the connection to the INTERNET network. At least two private companies active in the computer SW/HW business (Mercantile and CAS) have strong interest in establishing full INTERNET connections in Nepal. The Mission recommended MOIC to authorize private connection to the INTERNET, which is similar to the case of the many public telephone call offices in operation, and recommended NTC not to exercise monopoly powers in order to prevent private sector participation. Currently, Mercantile is operating (unlicensed) an INTERNET connection through the switched telephone network good only for E-Mail service, which is a first step in the right direction. The next step is either leasing a data up-link channel (4.8 Kbits, 9.6 Kbits or a full 64 Kbits) or using one access to the Packet Switch Network which NTC procured under the 5th Project and which will be commissioned in July/August 1995. However, the capacity of this Packet Switch network is limited, as noted in the previous Aide Memoire. Additionally, these potential service providers and main users, such United Nations and World Bank branches, are requesting authorization for direct connection to the satellite. This is an example of the issues the future RA should decide upon.

**B. AMENDMENT TO THE DCA - USE OF SAVINGS**

7.            As of the time of processing the 5th project SAR (April 1992), NTC had 77,700 installed telephone lines, with some 61,600 in service. The 5th Project plan was to add 60,850 net lines, this number being limited by the availability of funds and not by demand. However, NTC has demonstrated its capability to undertake large a construction program (it is already installing 100,000 instead of 61,000 lines) and would like to use available funds under the credit for additional 41,000 lines.

8.            Attachment 2 presents the number of telephone lines to be procured through different funding. The following Table summarizes the Installation Program, including the 41,000 additional lines.

<u>Net Installation Schedule</u>	<u>Lines</u>
1994	8,465
1995	34,400
1996	39,300
1997	47,550
1998	13,250
-----	
Total	142,965

9. The mission up-dated with NTC the Procurement Monitoring Tables to establish the amount of savings (Attachment 3). It was found that NTC would require around SDR 34 million, out of SDR 40.1 million authorized in the 5th Credit, to comply with the physical targets as established in the Project Agreement and DCA. HMG/MOF and NTC already presented to IDA in December 1994 a request for Use-of-Savings. Taking into consideration the strong commitment of HMG/MOIC to proceed with Sector Reform, the progress already achieved in organizing future consultancies/training, and the satisfactory implementation of the 5th Project by NTC, the Mission recommends approval of the requested Use-of-Savings. These additional funds would mainly contribute to finance the procurement of about 41,000 additional switching lines, including the necessary cable network.

### C. FINANCIAL ISSUES

#### C - 1 SUBMISSION OF NTC'S AUDITED FINANCIAL STATEMENTS

10. The Mission reviewed with Mr. Basudev D. Lamichhane, Assistant Auditor General and Mr. K. K. Singh, External Auditor appointed by the Auditor General's Office (AGO) progress with the agreed Audit Programme, finding that there is a delay of about two (2) months in the submission by the External Auditor of the Preliminary Audit Report. This report was scheduled for 25th Falgun 2051 (15 March) and now it is expected by 15 June 1995. The Mission discussed means to minimize or avoid any delay in the presentation of Final Audited Financial Statements, and the AGO, External Auditor and NTC representatives agreed to make every effort needed in order to submit Audited Financial Statements on time (15 July 1995); however it was recognized that it would be very difficult to accomplish this task due to the existing delay.

#### C - 2 NTC'S UN-AUDITED FINANCIAL STATEMENTS

11. NTC submitted to the Mission Un-Audited Financial Statements as of 15 July 1994, including Project Accounts and use of the Special Account. Attachment 4 incorporates these un-audited values for 1993/94 and also the budgeted figures for FY 1994/95. The projected Financial Statements assume the purchase of the requested additional 41,000 switching lines. The main findings are:

(a) A comparison of the period 1993-1995 shows a decreasing trend in the growth of Total Revenues, however, due to the increase in Depreciation, the Rate of Return is kept around a healthy 35% value. However, the Profit has been decreasing from NRs. 851 million in 1993 to NRs. 735 million in 1994 and it is expected NRs. 719 million for 1995. The slow increase in Revenues, even with a 19% increase in the number of Working Lines (70,575 as of end 1995; 84,183 as of end 1995) reflects the low increases in total traffic (see page 4 of 9, Attachment 4)

(b) NTC's efficiency, as measured by the number of Staff per 1,000 Working Lines has improved from 51.9 in 1993, to 49.2 in 1994 and 47.2 in 1995.

(c) The Total Investment has grown from NRs. 603 million in 1993, to NRs. 1,222 million in 1994 and NRs. 1,858 million in 1995. In this period the Internal Cash Generation has been reduced from 85.6% to 79.6 % and 42.7% in 1995, reflecting the increased use of the IDA Credit.

### C - 3 AUDITOR GENERAL'S OFFICE IMPROVEMENT PLAN

12. The Mission met with Mr. E. F. McNamara, Consultant to the AGO in the Institutional Development Project. This Project aims to improve accounting and financial practices in Nepal's SOE, and has chosen as pilot the main 3 public utilities: NEA, NTC and NWSC. As a result of this Project, submission of NTC's Audited Financial Statements will improve as follows:

<u>Submission of Financial Statements</u>	<u>Target Un-Audited</u>	<u>Target Audited</u>
1994/95	9 months	12 months
1995/96	6 months	9 months
1996/97 on	3 months	6 months

13. The Mission endorsed this initiative and requested NTC full cooperation with this Project of the Auditor General's Office. Attachment 5 to this Aide Memoire summarizes this AGO's Project for NTC.

### D. CORPORATE DATA BASE and BILLING SYSTEM

14. The Computer Department and the Billing Department have been actively producing application software for the following NTC's activities:

- 1 - Human Resources Management
- 2 - Sales or Customer Management System
- 3 - Enhanced Directory Inquiry System

- 4 - Computer Inventory System
- 5 - Cashier (Cash Collection) System
- 6 - General Accounting System, and
- 7 - Government Billing by Levels

All these software were developed using the existing DataBase IV and/or FoxPro Platforms. Further software development depends upon the immediate procurement of Software Tools (page 5/1 of the Procurement tables; Attachment 3) for around US\$ 100,000, which will be used until procurement of the new platform (see below) using the recently received Pentium computers.

15. The Computerization Plan includes the following future steps:

(a) Procurement of the new Main Frame (actually it is a small size computer but as powerful as an old type mainframe) which will be UNIX based, using Relational DataBase Management System (RDBMS) technology. The Tender document is under preparation, and it is expected to float the Tender in August 1995, with delivery scheduled for January/February 1996. This equipment will put NTC's computerization on a more advanced platform, making use of Local Area Network (LAN) and/or MAN environment.

(b) Procurement of more Servers for KRO and CNP, including extensive introduction of Workstations throughout NTC's offices in Kathmandu and the Regions. This procurement is scheduled to begin floating the Tender around March 1996.

## E. PROJECT IMPLEMENTATION

### E - 1 PROCUREMENT ISSUES

16. As a result of the Project Implementation Meeting and a review of the updated 5th Project Procurement Monitoring Tables (Attachment 3), the following issues are highlighted:

(1) Tenders being reviewed by IDA: none

(2) Tenders to be submitted for IDA's no-objection of the Evaluation Reports:

IDA/V/4-2 for Poles & Accessories

IDA/V/8-4 for Solar Power Systems for MARTS, VHF and VSAT

### E - 2 OTHER PROJECT IMPLEMENTATION ISSUES

17. As shown in Attachment 3, the present level of disbursement exceeds US\$ 10 million. It is expected that by calendar year-end the disbursement level will reach US\$ 30

(55%) compared to 42% estimated in the SAR. Attachment 6 shows the Performance Indicators for the 5th Project

18. The mission met the TELECON/NOKIA/NERA installation team who is implementing the FINNIDA/NDF funded part of the Project: digital microwave transmission equipment, from NERA; and fiber optic junction network in Kathmandu Valley, from NOKIA. This implementation work is progressing well, and is scheduled to be finalized on time for connection of the new digital exchanges procured under the IDA Credit. In particular, around 50% of the fiber optic links are being commissioned, with some links connecting Central exchange with other Kathmandu exchanges already in operation. The NERA digital transmission microwave equipment is being processed through customs.

### E - 3 MARTS IMPLEMENTATION

19. NTC procured 4 large MARTS systems and 15+1 (test bench) small MARTS systems under the 4th Project and 4 additional small MARTS systems under the 5th Project. The following Table summarizes the status, capacity and geographical coverage of the procured MARTS systems:

#### For the 19+1 systems under 4th Project

Item	Total	Already Installed	Operating
Base Stations	19+1	17+1	17+1
Repeaters	79	56	56
Terminals	394	267	267
Subscriber Lines	3,474	1,179	1,167

#### For the Total of 23+1 systems

Item	Total	Already Installed	Operating
Repeaters	99		
Terminals	607		
Subscriber Lines	4,466		

The 4 systems procured under the 5th Project will be installed in 1996/97.

Subscriber lines are distributed in 73 of the 75 Districts in Nepal.

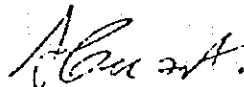
20. NTC plans to install 6 of the remaining 8 small MARTS systems under the 4th Project in 1994/95, and the 2 remaining small MARTS plus the 4 procured under the 5th Project during 1995/96. Each small MART provides 4 - 12 subscriber lines and each large



MART provides 8 - 40 subscriber lines. However, small MARTS have a limit of 160 lines per system, and large MARTS have a limit of 512 lines per system.

#### F. NEXT MISSION - MID-TERM REVIEW

21. The Mission discussed with HMG/MOIC about organization of the next IDA Mission, which is scheduled for October/November 1995 and which would include a Mid-Term Review of the 5th Telecommunications Project. It was agreed that IDA will inform HMG/MOIC about the timing and the special information required for the Mid-Term Review Mission.



Alberto Cruzat

Telecommunications and Informatics Division  
for Energy and Infrastructure Division  
Country Department 2  
South Asia Region  
The World Bank

Kathmandu, NEPAL  
Monday 15 May 1995

**LIST OF AGREED ACTIONS**

<b>DATE</b>	<b>AGENCY</b>	<b>ACTION</b>
June 95	HMG/MOIC	sign PIIRD Fund Agreement
July 95	MOIC	initiate consultancies under PIIRD Fund
June/July 95	IDA	decide on request for Use-of-Savings
15 July 95	NTC	submit Audited Financial Statements & Project Accounts
July 95	NTC	float Tender for new Computer platform
Sept. 95	MOIC	finalize Tender calling for Bids to award licenses

Distribution in Kathmandu:

His Excellency, Mr. Pradeep Nepal	Minister MOIC
Mr. Bhoj Raj Pokhrel	Secretary, Ministry of Information & Communications (MOIC)
Mr. Shankar Nath Rimal	Member, National Planning Commission
Mr. Madhab P. Ghimire	Joint Secretary, MOF
Mr. Basudev Lamichhane	Assistant Auditor General
Mr. Mahesh Kumar Karki	Under Secretary, Ministry of Finance
Mr. Bhoop Raj Pandey	MOIC
Mr. G. S. Bora	General Manager, NTC
Mr. R. K. Tuladhar	D. G. M. O & M
Mr. V. B. Bajracharya	D. G. M. Planning
Mr. Bala Ram Pradhananga	D. G. M. Admin and Finance
Mr. R. L. Shrestha	D. G. M. Development
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Mr. Richard Kingston	DANIDA
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Mr. Olli Sotamaa	FINNIDA
Mr. Topi Kallinen	FINNIDA
Mr. Arnold Ostevik	Supervision Consultant
Mr. Shiv B. Lal	Project Coordinator
Mr. Masaei Matsunaga	Japanese Embassy, Nepal

Wed. 10 May 95

**World Bank Telecom. Mission**

**Main Issues**

**A - PROGRESS IN SECTOR REFORM**

**A - 1. Call for Bids to award Licenses**

**Danish Trust Fund - Andersen Management Int. A/S consultancy**

Before floating the Tender calling for Bids to award Licenses MOIC should decide on the following points:

- (a) How many Licenses for Cellular (geographical areas, overlapping, GSM or analog)
- (b) Who would take the 20% (up to 40% Nepalese part)
- (c) Whether a joint Cellular/Wireless Local Loop (WLL) license or two separate licenses.

**(a - b) HOW MANY and TO WHOM**

Only one cellular license: Creates a monopoly situation. In which case NTC should not be involved, neither with 100% nor with 20% ownership

Two cellular licenses with overlapping geographical coverage. It has been the typical solution: Finland, China, Mexico, Chile, etc. In this case one license has been awarded by auction to the private new service provider (no 20% for NTC) and the second is given to the P&T (NTC). However, if there are different geographical areas (Kathmandu Valley and Regions) in one geographical area the two licenses can be awarded to private new-comers, which can share physical facilities and compete on terms of service.

Three licenses in one geographical area. Probably too many for Nepal at this stage of development. One cellular company needs a minimum number of customers to be financially viable (10,000 to 15,000).

(c) LICENSING FOR BOTH CELLULAR AND WLL or SEPARATE LICENSES

This decision depends on some technical aspects which should be studied.

If the purpose is to extend the network replacing the Plain Old Telephone Network (POTS) technology by the faster implementation of WLL, and switching capacity is available, Analog Cellular technology may be the less expensive solution. It only requires an interphase, not an expensive cellular switch. It is competitive when the geographical density is 200 customers per sq. km. or less. In rural cases with expected densities of less than around 30 or 20 customers this solution becomes more expensive than MARTS.

Provision of WLL using GSM always requires a switch (the interphase is yet to be developed); and this is an expensive switch which exists only for 15,000 or 20,000 lines as minimum capacity. Even in cases where the combined capacity cellular/WLL is large enough (20,000 lines or more) it may provide a WLL solution at prices not competitive with POTS (cost per line of US\$ 2,000 or more). It should be studied.

A - 2. Organization/staffing/training of Regulatory Agency (RA)  
New Telecom. Law and Commercialization of NTC  
Japanese Grant Fund (PHRD Fund) funded activities.

(a) Processing of PHRD Legal Agreement

Final document is expected to be ready in a week.

(b) Organization/ staffing and training of RA staff

Initial contacts already underway to secure basic consultancy leading to: drafting New Telecom. Law, discuss basic Organization of RA and begin training of pool of people from where HMG/MOIC would choose RA's staff. Work may begin as soon as Legal Agreement is signed.

(c) Commercialization of NTC

HMG/MOIC should consider the need to prepare NTC for the new multiple-providers environment. This effort may begin by providing more independence to NTC from Government rules and regulations and, as recommended by the Workshop, creating an arms-lengths relation between NTC management and the Government regulatory activities (Secretary MOIC should not be simultaneously NTC Board Chairman).

Activities under the PHRD Fund may include preparation of an eventual NTC partial or total privatization (issuing shares part of which may be sold to the public). This effort may begin by engaging a consulting firm to undertake a valuation of NTC assets.

The Mission has not received yet any information about HMG ideas about the future of NTC. It may be valuable to re-initiate discussion of this issue as soon as the activities discussed in the previous paragraphs are underway.

## B - TARIFFS ISSUES

HMG/MOIC have not authorized any tariff adjustment after the World Bank sponsored Tariffs Study of 1990, which resulted in an increase for the Local Service Monthly Rental from NRs 100 to NRs 150.

The introduction of new service providers, in particular WLL providers, which is the area of utmost importance to the Government because is the direct effort to satisfy demand, will bring into the picture the need to adjust tariffs to levels compatible with Cost-Based Pricing. The alternative of awarding a combined cellular/WLL license has the disadvantage of opening the door to possible cross-subsidy from cellular customers to WLL customers, which would be similar to the current International-to-Local customers cross-subsidy in NTC, with all the risks involved in this unbalanced situations.

The risk mentioned above may be reduced through clear clauses in the license contract with the combined cellular/WLL provider stating the number of WLL customers to be served in specific periods of time, the geographical distribution (urban/rural) etc. However, a separate licensing of cellular and WLL automatically eliminates this problem which would present an additional load to the RA.

A rough comparison with tariffs applied in other countries gives the following picture:

Local service NRs 150 Monthly Rental (US\$ 3) compared with range US\$ 10 -30

Domestic Long Distance NRs 1.2 to 12 (US\$ 0.024 to US\$ 0.24) compared with usual range between US\$ 0.05 to US\$ 0.10.

International Calls range NRs 110 - 200 (US\$ 2.2 to 4 per minute) compared with normal ranges between US\$ 0.3 to US\$ 1.5

## **C - NTC ISSUES**

### **C - 1 Presentation of Un-audited and Audited Financial Statements**

Un-audited Financial Statements were due 15 April 1995, and Audited F.S. are due on 15 July 1995. After reviewing progress of Audit Program with the External Auditor and Auditor General we are established a delay of about 2 months in the presentation of Preliminary Statements (now are targeted for 15 June 1995). This delay may probably result in delayed presentation of the Final Audited Statements.

### **C - 2 Procurement**

NTC Board should establish clear procedures on how to deal with cases where the recommendation for award of an Evaluation Report is not accepted by NTC Board. The final outcome to be submitted to the World Bank should be one Evaluation Report supporting the final official Board Recommendation.

### **C - 3 Use-of-Savings**

The Mission will support HMG/MOIC and NTC request for Use-of-Savings of around US\$ 10 million resulting from less than expected equipment prices in the 5th Project. Processing of this request may take 2 to 3 months.

### **C - 4 Corporate Data Base**

This sub-project is jointly financed by FINNIDA and the Bank. NTC's Computer and Billing Departments are finalizing development of several application software (Inquiry System, Human Resources Management, Sales Management, Inventory System, Cashier Collection, General Accounting, Government Billing by Levels, etc.). The next steps are:

- (a) Tender for procurement of new platform Hardware/Software (Relational Data Base), which will be ready for submission to the Bank in June 95.
- (b) Direct procurement of Software Tools to proceed with in-house developments.

資料 6

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JICA

