

UNIVERSAL ACCESS TO INFORMATION

PRESENT SITUATION AND AGENDA FOR ACTION

An exercise on grassroots communication and
information policy and strategy for Nepal

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TABLE OF CONTENTS

	Page
Abstract	
Chapter 1. Background	1
1.1 Introduction	1
1.2 Objectives	2
1.3 Methodology	2
Chapter 2. Antecedents, current status and trends	4
Chapter 3. Communication profile of four districts	8
? Rupandehi	8
? Palpa	12
? Mustang	15
? Jumla	18
Chapter 4. Visible impact of communication	21
Chapter 5. National vision and future	24
Chapter 6. Opportunities and constraints	27
Chapter 7. Recommendations	30
Chapter 8. Summary and Conclusions	33
References	36
Annexes	

Abstract

Communication is a force to reckon with. It has an added importance in a democratic and open society like Nepal's. It must, therefore, be given adequate and serious attention that it deserves. The government has shown its awareness of this phenomenon and incorporated its goals and objectives in the official documents.

On the hardware side, Nepal Telecommunication Corporation is responsible for the development of telecommunication facility and its distribution in the country. It has expanded its reach in all districts of Nepal by adopting various technologies available in this field. The satellite technology is one that the NTC is using as widely as possible. However, the telephone service is not pervasive enough to affect those areas where it is most needed.

Computer technology has begun to show some impact on the lives of the people. It has brought the Nepalese people, albeit in a limited scale, closer to the international community. E-mail and Internet are becoming popular and expanding fast. However, costs and technological know-how are factors that are inhibiting the speedy and large-scale adoption of information technology.

On the media side, while physical development is proceeding satisfactorily its content needs much improvement. The media's credibility develops in proportion to its objectivity and responsibility. Modern technology is being increasingly used in this industry.

Radio broadcasting has a broader reach and, therefore, it is experiencing greater control by the government. The nation-wide broadcasts are within the domain of the government. However, more recently the government has allowed the private sector to own and operate local broadcasting stations, especially for commercial and entertainment purposes. This in itself has been applauded as a big achievement in the South Asian region since no other government in this region has allowed private sector broadcasting.

Television is an effective means of communication and information. But it is facing a tough competition with international channels. The government wants the state-controlled Nepal Television to extend its reach to all parts of the country and become more effective in its impact. But, it is far from achieving either of these objectives. It is trying to use the satellite to attain national coverage. But, how to make its programs effective remains an important question.

While the mainstream media is taking its own course of development and expansion in Nepal, the alternative media is fast emerging as a complementary but more effective means of communication and information. The alternative media is a combination of the traditional means of communication and modern low-cost means that can serve the needs of the rural communities. There are sufficient evidences of its successful impact to deserve strong support for its wider use in the country. The beauty of this alternative media is that it adopts the modern communication means to suit the local needs of the local communities. It is just a question of making the best use of the traditional as well as modern means of communication for information dissemination.

Chapter 1

Background

1.1 Introduction

Information is power. A democratic system that Nepal has embarked on aims at empowering the people with information. How to deliver information to the people of Nepal to enable them to exercise their democratic rights and develop themselves is indeed a stupendous challenge. Luckily, at the dawn of the new millennium, the technology to disseminate information is available. But unfortunately, the bulk of the Nepalese population has not been able to access it.

Nepal entered the modern age some 50 years back with a political change from a closed to an open society, from a family rule to a democratic dispensation. Over the last 50 years, experiments in democracy passed through a period of trial and error before a parliamentary form of government was finally installed in 1990 in the wake of a people's movement against the king's direct, authoritarian rule. However, the history, culture and mindset of the people which were steeped in feudalistic and traditional values of obedience and conformism is finally changing, too. Such a change can be accelerated with the effective use of the various means of information and communication.

Nepal is, presently caught in this process of democratic experimentation amidst constant social and political conflicts. Under the newly emerging scenario, it is not only liberal education but also conflict resolution that are gaining precedence in the national agenda. Both these goals can be attained through an effective use of information and communication at the grassroots level.

There is no doubt that information and communication can play a critical role in the development of a country. Nepal's recent political changes like the National Referendum of 1980 and the People's Movement of 1990 can, to a large extent, be attributed to the people's exposure to global information following the introduction of modern audio-visual technology in Nepal. It is evident that radical changes can be brought about at the grassroots level if the power and potential of information and communication could be used.

Information technology has certain comparative advantages for a country like Nepal. It, for example, overcomes the geographic difficulties of being landlocked. With new technologies like VSAT and the Internet, people can easily communicate with any part of world and, thus, get benefited from exchange of information.

Computer technology has emerged as a strong means for developing such concepts and services as tele-medicine, tele-education, e-commerce, e-trade, e-governance, etc. It has offered the means of undertaking activities that were unthinkable in the recent past.

In Nepal, it is heartening to find the private sector participating in the information technology sector with large investments. Email and Internet businesses have boomed in the last decade. But this growth is still being retarded by the lack of adequate telephone infrastructure. On the media side, the coverage of Nepal Television is confined to only 40 per cent of the country while the number of actual viewers is much lower because only about 16 per cent of the area is electrified. Television access is

greatly restricted by the high cost of TV sets, especially for the poor in the rural areas. Only 5 in 100 people have telephone connection.

In the national context, information and communication can be immensely valuable in curbing existing social and economic exploitation. Villagers can benefit by getting rid of the intermediaries and receiving fair prices for their products and services. Information access can help narrow the gap between the producers and the consumers. Easy access to market and fair prices for commodities is essential for increased production and economic development.

Information has, thus, emerged as an important base not only for strategic economic planning but also for poverty alleviation. Accurate information is the key element to the success of strategic planning and programming. One of the biggest problems for planners of a developing country like Nepal has been the lack of accurate, adequate, timely, relevant and precise information about socio-economic indicators in such areas as health, education, drinking water, trade, income, etc.

In the absence of information technology, planners and policy makers often suffer from the lack of timely and accurate information about socio-economic conditions of the rural people. This has had adverse impact on the implementation of programs targeted at the poor. Access to information technology is, therefore, all the more important in the context of development in a liberalized and globalized economy.

1.2 Objectives

The major objectives of the study are as follows:

1. To help create a knowledge-based society in Nepal
2. To help economic growth using information and communication technology
3. To help people participate in the democratic process and development work
4. To help people participate in the mainstream of international information and communication
5. To review the current situation and analyze the changes that are taking place due to the introduction of new information technology in the rural areas and
6. To identify an agenda for action for future in order to use information technology as a tool for economic development of the rural population and also to identify the areas where the technology can be used for poverty alleviation.

1.3 Methodology

Relevant literature was reviewed at the central level to evaluate the policies and programs in relation to universal access to information. In addition to the provisions made in the periodic plans of the country, sectoral and sub-sectoral policies and programs were studied in order to assess the present situation from the policy points of view.

The study effectively used field-based information collected through visits to different areas of the country for a rapid assessment of access to information.

The areas for field visits were selected to reflect various geographic areas of the country, namely, the mountains, hills and the Terai. Jumla of Karnali Zone of Mid-Western Development Region, Palpa and Rupandehi of Western Development Region representing the middle hills and the Terai,

respectively and Mustang of Western Development Region representing the mountain districts, were the four sites visited.

During the short period available for field visits, the existing information access situation was identified. In addition, introduction of new technology and the application of innovative ideas and approaches were recorded to see what impact they had made.

The interviewees were from different segments of the society including farmers, labourers, teachers, businessmen, officials and representatives of civil society organizations.

The findings of the field visits were reviewed, analyzed and discussed at the Advisory Committee level and the draft report was prepared.

An advisory group comprising experts from the media and information-technology was formed. This advisory group reviewed the study process and provided inputs to the field-study team. It also deliberated and commented on the draft report and provided guidance to improve the report. And, for this purpose, a final meeting was held to review the study findings before finalizing the report.

The meeting of the advisory team was chaired by Dr. Mohan Man Sainju, Executive Chairman of, IIDS, with Mr. Bharat Dutta Koirala, Mr. Hem Bahadur Bista, Mr. Binaya Kasaju and Mr. Bhairab Risal serving as members.

Chapter 2

Antecedents, current status and trends

The history of Mass communication in Nepal is rather short. It was only after the dawn of democracy in 1951 that radio broadcasting was introduced and the development of the private press was encouraged. In the 50 years of Nepal's modernization efforts, mass media has made considerable contribution. However, it has yet to play a satisfactory role in support of the democratization and development process in the country.

The people's movement of 1990 marked a watershed in the political development of Nepal. So was its impact on mass media. The Constitution of the Kingdom of Nepal, promulgated in 1990, has upheld full freedom of the press and the right of every citizen to be informed. But the right to information is still largely confined to principle rather than practice. Until a Right to Information Act is passed by parliament to translate it into practice, the letter and spirit of the constitution will remain unattained.

However, Nepal has witnessed a tremendous development in both print and electronic media in the recent past. Of course, there are many positive and negatives sides of the media development in Nepal. Nevertheless, the media scene in Nepal is immensely interesting to observe and study.

Print Media

When democracy was introduced in Nepal in 1951, newspaper industry marked a distinct development. The *Gorakhapatra*, which started in 1901 as an official mouthpiece of the then oligarchic regime first as a weekly and then a bi-weekly, was published as a daily in 1961. In the private sector, there were many daily and weekly newspapers coming out with more political bias and propaganda than development information. Today the print media might be suffering from lack of credibility but it has greatly helped the flow of information in the Nepalese society.

The government records showed that in 1999, there were 1,398 newspapers in Nepal. Of these 200 were registered as daily, 11 as bi-weekly, 994 as weekly, and 193 as fortnightly. In Kathmandu valley alone, 728 newspapers were registered-- 108 daily, 2 bi-weekly, 513 weekly and 105 fortnightly. In other words, half of the country's newspapers come out of the capital. There are newspapers in a number of languages-- 94 percent in Nepali, 3.5 percent in English, 1 percent in Newari, 1 percent in Hindi, 0.5 in other languages.

It is obvious that most of the newspapers with relatively large circulation. are confined to the Kathmandu Valley. They are published there and largely circulated within the confines of the Valley. Newspapers published in the various districts outside Kathmandu generally have circulations, but nonetheless wield considerable influence in local affairs. It should be noted that half of the 75 districts in the country have no newspapers.

Newspapers from Kathmandu can reach 25 districts within 24 hours. But many districts in remote areas receive hardly any newspapers. The existing distribution system is too poor and inadequate to cover the whole country. Since newspapers from the capital tend to reach only the urban

areas from which local newspapers are also published, it can be safely stated that much of the country's rural areas are without newspapers.

Radio

Radio is by far the most effective means of mass communication in Nepal. A 1997 study done by Radio Nepal estimated that there were 1.7 million radio sets in the country. The short-wave and medium-wave broadcasts of Radio Nepal with its relaying facilities can reach much of the country.

Ever since its establishment in 1951 Radio Nepal has functioned as a government monopoly with the Ministry of Information and Communication effectively controlling its functioning. However, in recent years it has started using its regional centres for broadcasting programs in different languages. New is now broadcast in 17 languages. Radio Nepal has also diversified its programs.

Following the formulation of a communication policy that sought to liberalize broadcasting the government has, since 1998, started granting licenses for local broadcasting. Accordingly, licenses were given to a number of commercial and public service stations, although Radio Nepal itself first started broadcasting in the FM Band in 1995. It leases out broadcast time to independent agencies such as Aatma Jyoti FM, Hits FM, Music Nepal FM, Classic FM, Image FM and Swarnim FM.

Independent private broadcasting started in Nepal with the establishment of Radio Sagarmatha which became the first independent, non-commercial public station in the whole of South Asia since it received its broadcasting license in May 1997. The ownership of the station lies with Nepal Forum of Environmental Journalists which first applied to the government for a license. By mid-2000, FM radio licenses were issued to 12 private groups and six were already broadcasting programs of various durations. Kantipur FM began broadcasting on Oct. 14, 1998 to become the first independent commercial radio to go on the air. It broadcasts 24 hours every day. Another commercial radio is KATH 97.9 FM operated by Image Channel. Metro FM, owned and operated by the Kathmandu Municipality is also on the air. Metro FM represents another first in Nepal in that it is run by the Kathmandu Municipality, an elected local government unit. It is perhaps the first radio station in South Asia that is run by a local government.

There are two other community radio stations which are presently broadcasting outside of the Kathmandu Valley. One is owned and operated by Madan Pokhara VDC of Palpa district and the other by the Information and Communication Cooperative in Rupandehi district. The former, located at Madan Pokhara broadcasts four hours a day and the latter located at Manigram near the industrial town of Butwal broadcasts six hours a day.

These developments are significant in this that Nepal has become the first country in South Asia to allow private sector broadcasting and the first with stations owned and operated by village communities.

Television

Nepal Television is perhaps one of the youngest television stations in Asia. It started as a project in January 1985 and started broadcasting regular programs from December of the same year. It is said that in those days there were only about 400 TV sets in Kathmandu and the majority of these were used watching videos. With the help powerful antennas some watched programs broadcast by

India's Doordarshan. Currently Nepal Television covers about 44% of the country's population and about 35% of the land area.

. With the extension of NTV's network, transmission hours have been increased to 61 hours per week. In the last twelve years its audience has grown from 2,000 viewers in the capital, to approximately 2.5 million viewers across the country spread mostly in the southern plains and urban areas. The fact that 75 per cent of the country comprises hills and mountains limits the reach of Nepal Television.

It is now fully realized that in view of the country's difficult terrain it is impossible for NTV to reach the entire population without the use of satellite. NTV is now actively preparing to transmit its programs via satellite as early as possible. This would not only cover the entire country, it could also make its signal available to Nepalese living abroad

As in the case of radio broadcasting, licenses have been granted to the private sector for operating cable services and television broadcasters, one of which has permission to up-link programs and broadcast via satellite. News remains a monopoly of Nepal television and Radio Nepal. In recent years private companies have purchased NTV's air time for telecasting their own programs, which do not contain news and current affairs programs.

Telephone

It has been proved that the telephone is an extremely useful medium of communication for villages in a country like Nepal. With the installation of digital telephones in many districts communication with rural Nepal has become much easier and has helped in breaking their traditional isolation. The telephone has also opened up prospects for the use of modern information technologies like email and Internet in the rural areas. Before telephone service was started, a wireless system was installed to link the district headquarters for both official and public communication. Tele-communication service first started in Kathmandu in 1913. Before 1955, there were only 350 telephone lines in Nepal and the only trunk services were between Kathmandu-Dhulikhel and Palpa-Bhairahawa-Kathmandu. The development of systematic telephone services started after the establishment of the Telecommunication Department in 1959.

To begin with, the Department made available telephone services based on an earth-satellite communication system and an automatic telex and telefax for international communication. Today, direct international telephone linkage has been established with 131 countries around the world. A total of 842 circuits are made available for the purpose of international communication. Among these, Public Call Offices (PCOs) are operated in 1,502 places by private institutions and in 174 places by NTC.

NTC has total installed capacity of 255,795 telephone lines, with 110 operational exchanges in 60 districts. The service is available in all the 75 districts. It has 45 C-DOT exchanges, 12 JICA rural stations, 693 MARTS Subscriber Terminals, 790 VHF/UHF single lines and 7 VSAT Terminals operating in rural areas. The ratio between telephone lines and the population stands at 1:2,000 people. Presently, NTC has a total of about 10,000 lines which cover about 1,676 VDCs with STD and ISD facilities around the Kingdom.

Currently, various telecommunication services have been introduced with the participation of the private sector. The following services are provided by NTA: Email/Internet, Fax-mail, Audio Text, VSAT (Data Communication), Audio-conferencing, Pay Phone, Pre-paid calling card, Local Data Network, Radio Paging and Trunk Mobile Radio.

License has been provided to 11 Internet (including Email) Service Providers, 4 VSAT Networking Service Providers and 13 VSAT Networking Users in the private sector. A separate license has been issued to NTC for the Global System of Mobile Communication (GSM) and Cellular Mobile Telephone system. License has been provided to 5 Radio Paging Service Providers, 3 Fax Mail Providers and 1 for Video Conferencing. Cellular Mobile Telephone is currently operating in Kathmandu with a capacity for distribution of 6,000. Biratnagar, Birgunj and Pokhara will have 1,200, 1,400 and 1,400 lines respectively.

Computer, E-mail and Internet

At present a variety of information media is in operation in Nepal. Computer, E-mail, and Internet are becoming more and more popular. Some important information media operating in Nepal are discussed below.

Computer, E-mail and Internet are all mainly related to information technology. The computer was first introduced in Nepal by HMG/N for processing census data in 1971. The private sector began its activities in this area since the early eighties. Mercantile Office System initiated Internet service for the first time in the country in 1993-94. But it was only after three ISP's (Internet Service Providers) were already functioning that the government announced the ISP Regulations in October, 1997. The government amended the Intellectual Property Rights Act in 1998.

There are now an estimated 9,000 Internet subscribers in the country, mainly in the capital. The number goes up to 25,000 to 30,000 if those with email facilities are also included. Soon after Mercantile Communications began providing Internet service Worldlink Communication followed suit. Now a year after the government made rules making it compulsory for the Internet Service Providers (ISPs) to receive license, the number of ISPs has risen to eleven. Internet Service Providers, however, complain that the number of people using Internet could rise immediately if the government came up with the right policies.

The ISPs are facing stiff competition, sometimes fair but most of the time unfair. Given the size of the market in Nepal the number of ISPs appears to be too large. Despite such competition, the cost to the Internet consumer is still very high in Nepal compared to India and other countries. Along with the competition among ISPs, the cost of using Internet has decreased considerably. Started with monopolistic prices, the Internet service in the country is now available for as low as 42-44 paisa per minute. The ISPs are also providing with unlimited access to Internet at fixed rates.

The development of information technology in Nepal remains in its primary stage as compared to the developed countries. The growth rate in the private sector is slow due to the small size of the market, inadequate investment, lack of support from the government and lack of technical knowledge. Even though some urban areas can succeed in accessing information even under present circumstances much of the rural areas cannot use information technology given the rather exorbitant cost and its inaccessibility.

Chapter 3

Communication profile of four districts

The communication profiles of four districts have been prepared on the basis of field surveys undertaken in connection with this study. These districts have been selected, as explained in the methodology, to represent different geographic regions of the country and various levels of development in the communication field. They are Palpa, Rupandehi, Mustang, and Jumla. The profiles represent the overall picture of each of these places with their past experiences, current status, future possibilities in terms of communication development with logical implications for their holistic development.

Profile of Palpa District

Current status of the means of communication

Means of communication	Starting Date	Present Availability	No. of Users	No of Service Providers	First Provider	Remarks
TELEPHONE FAX	1949/ 1978+ -	Yes -	930 lines -	1 (NTC) -	Mohan Aakashvani -	+ New Tech. 2036
NEPAL TELEVISION PRIVATE/CABLE TV SATELLITE CHANNEL	1996/94 2049 -	Yes Yes -	400 - -	- 1 -	- 2 Local Businessman -	
COMPUTER E-MAIL/INTERNET	1996 1997	Yes Yes	50 15	- 2	Pooja Computer Pooja Computer	
RADIO NEPAL COMMUNITY RADIO FM RADIO	Before 1950 - April 15 +	Yes - No	90 % population - -	- - 1	Rana Ruler - Madan Pokhara VDC	+ Coming Baishakh 1
AUDIO TOWER	1996	Yes	-	5	Kasheni VDC	
LOCAL NEWSPAPER NATIONAL NEWSPAPER WALL NEWSPAPER	Before 1958 NA NA	Yes Yes Yes	- - Around 12	6 - 12 +	NA NA NA	+ Different VDCs, Schools

Palpa is one of the most prominent and educated districts of Nepal. It is composed of hills and mountains with few fertile valleys. It lies in the western part of Nepal. It is surrounded by Nawalparasi in the east, by Arghakhachi and Gulmi in the west, by Shyangja, Tanahu and Gulmi in the north, by Rupandehi, Nawalparasi and Kapilvastu in the south.

The population, according the 1991 census, is 236,313, the male population being 110,325 and female 125,988. There are 64 village development committees (VDCs) and one municipality, Tansen. Palpa is mainly agricultural with some tourist attractions. Tansen stands out as an important educational and health center.

Nineteen VDCs and one municipality have electricity supply. Seventeen VDCs and the only municipality have access to telephone facilities through MARTS (7 VDCs), VHF (9 VDCs) and the Palpa exchange services. Telephone service was available in Palpa way back in 1949 through the open-

wire system i.e. copper lines. These copper lines were connected from Palpa to Bhairahawa, Palpa to Pokhara and Kathmandu. After some years, these lines were abandoned as copper was taken by the villagers. Later in 1978, telephone service was provided by Nepal Telecommunication Corporation through new technology i.e. the CB system. Now, 930 lines are distributed by NTC through the Palpa exchanges.

In Madanpokhara VDC, there are two types of telephone facilities-- VHF 2 and Palpa exchange 12. Out of these, 6 telephone sets have STD and ISD facilities. In Tansen, there are more than 15 STD and ISD service providers. NTC fax facility existed for only two years. But in the private sector, fax machines are being used for over 10 years. Now, there are about 15 fax machines in Tansen alone.

In Palpa, since the telephone lines are in the C-DOT system, they have some noise or disturbances. The Digital System is being operated since 1985. The demand for telephone lines far exceeds the supply.

On an average, 10 to 20 persons per day use STD and ISD facilities at NTC. And, STD and ISD facilities are used by 3 to 7 persons per day at each of the private STD and ISD service providers.

The following table, based on field survey, gives a picture of the purpose for which telephone is used.

The Purpose for Using Telephone

Purpose	No. of Persons	
Personal Information	70	40.9%
Health and education	21	12.2%
Business	10	5.8%
Political	30	17.5%
Others	40	23.3%

Source: Group discussion among the reporters.

The above table shows that telephone is used mainly for personal information. Business information constitutes only 5.8%. Political information supercedes education and health information.

It is observed that telephone is substituting personal correspondence. It has, however, proved most useful for those who are living out of the country. People from this district are working in India, Malaysia, and some Arab countries. For them, ISD service has been of great help during emergency.

Television was introduced in Palpa in 1985 receiving mainly the Indian channel, Doordurshan. Nepal Television could be watched only since 1993. There are about 700 satellite TV channel users in Palpa, mainly in Tansen. In Madan Pokhara, about 30 households use satellite TV channels. Zee TV is the most popular channel in Palpa. However the National Geographic Channel is being increasingly tuned in by young people, particularly the students.

In the context of Nepal Television, the reception is too poor to be popular and people are discouraged from tuning in to this channel. It is for this reason that the attraction of NTV is much lower than the satellite TV channels.

An analysis of the viewers' interest in NTV programs presents the following picture.

Viewership of NTV programs

Programs	Number and percentage of viewing population	
Entertainment (mainly films and serials)	40	28.5%
News	51	36.4%
Health programs	22	15.7%
Educational programs	9	6.4%
Others	18	12.8%

Source: Group discussion among the reporters.

The above findings show that news is the biggest attraction in the NTV programs. Next comes the entertainment programs. Health and educational programs have a very low viewership.

Entertainment programs are mainly watched by housewives and uneducated people. The major section of the educated people watch NTV for news and special programs (mainly educational). The uneducated people appear to give more priority to films and serials than to the news, health and educational programs.

It is estimated that there are more than 2,000 TV sets in Palpa (mainly in Tansen and Madan Pokhara). There are more than 12 TV maintenance services in Palpa. But there are only two TV suppliers. Only 19 VDCs and one municipality have electricity supply. So the area covered by TV broadcast is only 25% of Palpa district. Access of TV to the poor is very limited. Either they do not own television sets or do have electricity. They can watch TV only in the homes of their better-off neighbors.

Srinagar Cable Service (formerly known as Ratna Cable) is a local cable television service which supplies a number of satellite TV channels to about 400 households. What is significant is that it also supplies one-hour of local programs every Saturday. All local programs are locally produced and presented. These local programs are very popular among the local people. They comprise mainly local news and programs related to culture, religion, educational functions and cultural programs.

Since the cost of producing these local programs is high, it has raised the question of sustainability. Srinagar cable Service issues shares among the local people to raise funds for it. The number of shareholders is now more than 20.

The survey also included the radio listening pattern of the people of Palpa since radio as a medium of communication has been popular in Palpa long before the introduction of Television. The Table below shows the radio listening pattern of the people Palpa.

Radio listening pattern in Palpa

Programs	Number and percentage of listening population	
Agriculture	65	21.5%
Human Rights	25	8.3%
Good Governance	15	4.9%
Health	30	9.9%
Awareness Programs	20	6.6%
News	70	23.2%
Entertainment	76	25.2%

Sources: Group Discussion among the reporters.

The above findings show entertainment commanding the highest number of listeners. Next comes news from Radio Nepal. It is however heartening to find the agricultural programs not far behind. Other programs like human rights, health, co-operatives, good governance have low listenership.

Most of the uneducated people listen to entertainment programs whereas most of the literate people listen to news. Farmers have show interest in the agriculture programs.

But, the problem with the centrally-produced agriculture programs are not related to either the cultivation or the harvesting time due to climatic variations in different parts of Nepal. Since the cultivation and harvesting times are not the same in all areas of Nepal the agriculture programs broadcast by Radio Nepal do not appeal to all the listeners equally.

Radio Nepal's Regional Broadcasting Service, which is brpadcast from Pokhara, is also available in Palpa. But it appears to be neither popular nor effective because of heavy bias towards Pokhara. Most of the people say that when the regional program starts they turn off their radios. They say that they want to listen to their own news and programs, which so far is not available.

All India Radio can be heard clearly. Most of the people listen to it. In Bauhaus Pokharathok, Kantipur FM from Kathmandu can also be heard. People also listen to the BBC (Nepali and Hindi) and Voice of America, especially those who are interested in news. They say the news coverage of Radio Nepal is inadequate.

Madan Pokhara VDC is presently broadcasting programs six hours a day on Frequency Modulation (FM) band. The construction of a small studio and installation of an antenna was completed some time ago. Madan Pokhara VDC FM uses 106.9 FM Band. The people of Madan Pokhara are very highly excited about it and they hope that FM station can help in the social and economic development of a large section of Palpa district which has access to its signals. Their programs, which are also broadcast in the Magar language, are designed to help local development.

Local newspapers are also published in Palpa. Currently, six weekly newspapers are published in the district. *Deurali* is the rural development-oriented newspaper, which is most effective. All newspapers give top priority to local news. These newspapers mainly focus on local events, women empowerment, health, entertainment, etc. Editors feel that people read newspapers to acquire knowledge rather than just for entertainment. Wall newspapers are also available in Palpa. In all, 12 wall newspapers are published mainly in the schools and rural areas. One *Hawaipatra* (newsletter) is

published once a month. Poems, stories and local news are published in the newsletter. Only 100 copies of the newsletter are published and sent out to regular readers.

National daily, weekly, fortnightly, monthly, quarterly newspapers and magazines, especially those published in Kathmandu, are available in Palpa. The impact of newspapers is seen to be positive but people are concerned about the quality of newspapers relating to their contents. They like to see the contents of newspapers focussing on development and rural orientation and not based on propaganda.

Mobile audio towers are also available in Palpa mainly in 11 VDCs. The audio broadcasting service is provided once a month from one VDC. The programs of the audio tower are mainly related to women empowerment. The mobile audio tower is operated by the mother's club and women's organizations. Their programs are most effective and the poor can also easily listen. But there are some problems relating to finance and management that need to be solved in order to operate them sustainably. As a result, there is no regularity in the operation of the audio tower.

In Palpa, computer services are available since 1996. The number of computer users is increasing day by day. Now there are two computer-training institutions -- Pooja Computers and Becon Computers. They train about 300 persons each year. The people feel that computer training is necessary but many cannot afford it. Women are mainly interested in computer training because since they feel that computer knowledge is the most essential for getting jobs.

Only one government office is using a computer. There are together about 40 computers all in the district. All computers are associated with the private sector. Some of them are used by offices of NGO like Red Barna Nepal, Helvetas, the United Mission to Nepal, etc.

There is neither a computer maintenance service nor a supply center in Palpa. The presence of computers is considered a positive development but it is beyond the reach of the general people due to economic and technical reasons.

E-mail/Internet facilities are available for the past two years. E-mail and Internet services are provided by Star Computer, Butwal, which is a branch of World Link, a Kathmandu-based company. But due to telephone disturbances, email and Internet services are not satisfactory in terms of quality.

E-mail/Internet facilities are mainly available for the general public at institutions like Pooja Computers and Becon Computers. According to them, the main purpose of using e-mail/Internet is to send and get messages. Most of the users are foreigners. So the content and use of e-mail/Internet facilities are limited in nature. The difficulty in obtaining a lease line from the Telecommunication Corporation has posed as the main problem in developing an efficient email/Internet service in the district. Services like e-commerce and e-medicine are, at present, beyond the capacity of the people.

Profile of Rupandehi District

Rupandehi is a Terai district that borders India. It is a commercial center of western Nepal. It has been well connected by transportation facilities. The following gives a picture of communication facilities in this district. Butwal and Bhairahawa are the two principal towns of this district.

Current status of the means of communication

Means of communication	Starting Date	Present Availability	No. of Users	No of Service Providers	First Provider	Remarks
TELEPHONE FAX	1949/1978 + -	Yes - -	5500 lines - -	1 (NTC) - -	Mohan Aakashvani -	+ New Tech. 2036
NEPAL TELEVISION PRIVATE/CABLE TV SATELLITE CHANNEL	1990 NA -	Yes NA -	- - -	- - -	- - -	
COMPUTER E-MAIL/INTERNET	1993 1997	Yes Yes	400 100	8 2	Star Computer Star Computer	
RADIO NEPAL COMMUNITY RADIO FM RADIO	Before 1950 - April 15 +	Yes - NA	90 % population - NA	NA - 1	Rana Ruler - Madan Pokhara VDC	+ Coming Baishakh 1
AUDIO TOWER	NA	NA	NA	NA	NA	
LOCAL NEWSPAPER NATIONAL NEWSPAPER WALL NEWSPAPER	Before 1958 NA NA	Yes NA Yes	NA NA NA	10 NA 5 +	NA NA NA	+ 1 VDCs and mainly Schools

There are telephone facilities in 35 out of 67 VDCs and 2 municipalities. The telephones in the district use VHF and MARTS Systems and the Lumbini exchange. Telephone facility was available in Butwal even before 1949 through the open-wire system. In 1977, about 200 lines were made available through the LB exchange system. The Microwave system was introduced in 1979. Since 1986 the digital exchange system is available. There is capacity for 6,000 telephone lines but only 5,500 telephone have been distributed. When the digital facilities became available, fax machines were used by the private sector. In Palpa and Bhairahawa, the RLU (Remote Line Unit) system are is used. But the BTMC system is used in Butwal.

The following Table gives a picture of the purposes for which the telephones are used.

Purpose of telephone use

Purpose	Number and percentage of users	
Business Information	61	29.1%
Personal Information	51	24.8%
Political Information	40	19.1%
Health and education Information	26	12.4%
Others	31	14.8%

Source: NTC, Butwal

Butwal (Rupendehi) being a commercial center, there is greater use of telephone for business communication than any other purpose. Next comes personal communication. This is followed by political and social communication. About 150 STD/ISD service providers function in Rupandehi district. An average of 5 to 10 persons use STD/ISD service per day. NTC Butwal is making a plan to provide mobile telephone facility to the people of Butwal municipality.

Television signals have been available in Butwal since 1985 receiving mainly the Doordarshan broadcasts from India. Now, NTV and satellite TV channels are also available. Most of the people are watching ZEE TV and NTV in almost equal proportion.

Entertainment programs like *Hijo Aajaka Kura*, *Gitanjali*, and the Tele serials are most popular. Most of the educated people watch news on NTV. The Teleserial *Chetana* is very popular among the housewives.

In rural areas, programs like *Devi* and *Chetana* are very popular. The impact of these teleserials appears to be positive. Satellite TV channels seem to create both negative and positive impacts.

Radio broadcasts are easily available and listened to in Rupandehi. Most of the uneducated people listen to entertainment programs. When they have time, they also listen to programs on human rights including radio programs like *Janajati* and *Hakahaki*. But most of the educated people listen to radio for information on national and international affairs. The people of Rupandehi are not interested listening to the regional broadcasts from Pokhara because of certain biases as well as the problems of language and program quality. All India Radio, BBC and VOA can be heard clearly.

Lumbini Information and Communication Co-operative in Manigram has operating an FM radio for some time. Even though it is in an experimental stage it broadcasts three hours in the morning and three hours in the evening. It has introduced a program in the Tharu language.

Many local newspapers are published in the district, principally in Butwal and Bhairawa. About 10 daily and weekly newspapers are published on a regular basis. The content of these newspapers is focussed on local events. Editors and reporters agree that there is no problem of market for the newspapers. Their main problem seems to be the lack of adequate investment in this sector. They feel sad about the fact that they can easily get information from the USA through the Internet but cannot collect information from the rural areas. They cannot do so due to the lack of vehicle facilities. Local newspapers are published in the Nepali language. Wall newspapers are also published in private schools.

Computer facilities are available in the district since 1995. Star Computers was the first to introduce computers and initiate computer training. Now, there are 8 computer-training institutions. On an average, each institution trains about 350 persons per year. There is an increasing trend in the number of trainees. It is estimated that there are about 400 computer sets in Rupandehi, which are located in institutions, banks, businesses, schools, NGOs, INGOs and government offices. Most of the private offices have computers but only a few government including the the VAT collecting offices have computers.

Most of the computers are used in word processing. Some of them are used in programming for business purposes. According to the Chamber of Commerce and Industry, most of the businessmen feel that computers are necessary for business activities. But, they are either unable to afford them or do not have the technical knowledge to install them. However, the popularity of computers seems to be increasing day by day. Most of the private schools teach computer science. There 12 such schools. There is no computer supplier, retailer or a maintenance center. Star Computers provides that type of service whenever necessary.

According to the Chamber of Commerce and Industry, the main problems related to the use of computers in Butwal (Rupandehi) are lack of technical knowledge, financial constraint and appropriate training institutions. They are, therefore, planning to establish a computer-training institution in the near future. But Star Computers does not agree with them about the lack of standard computer institutions.

According to them, the main problem of computer is the lack of technical knowledge about both software and hardware. Women appear to be more keen to learn computer skills. More than 50% of those taking training in the computer training institutions are women.

Email-Internet facilities are available in Butwal since 1997. Star Computers was, again, the first user of email/Internet. Now there are two email/Internet service providers -- Star Computers and the Chamber of Commerce and Industry, which are linked to WLINK and MERCANTILE, respectively. There are an estimated 50 Internet and 100 email subscribers in Rupandehi. Most of the Internet and email users in Butwa are students, businessman, teachers and foreigners. The main purpose of using Internet is admission in foreign universities, business activities and tourism. Star Computers supplies email/Internet services in Jumla (Hello Communication), Palpa (Pooja Computers), Bairahawa and Lumbini. They have a plan to establish VSAT in Butwal.

According to Star Computers, no one knew about the email/Internet at the time that they introduced training in the use email and Internet. Since then the number of users of email/Internet has increased dramatically.

Tourism development through email/Internet has become a possibility in Lumbini, Bhairahawa, Butwal and Palpa. A website introducing Palpa as a tourist destination is now available on the Internet. Similarly, introduction of Lumbini and Butwal is also available on the Internet.

Profile of Mustang District

Mustang is the northern most district of Nepal. It lies on the Tibetan plateau, unlike other districts of Nepal. It is considered one of the difficult and remote districts, as it is not accessible by vehicular transport. It is accessible either by foot which takes weeks or by air services which are regular subject to weather conditions in Jomsom.

The following chart gives an overall view of the communication profile of the district.

Current status of the means of communication

Means of communication	Starting Date	Present Availability	No. of Users	No of Service Providers	First Provider	Remarks
TELEPHONE FAX	1996 NA	Yes Yes	Around 4,000 Govt. offices	9 + No	NTC Govt. offices *	+ Jomsom only * Used for General Election
NEPAL TELEVISION PRIVATE/CABLE TV SATELLITE CHANNEL	No No 1985	No No Yes	No No Around 100 families	No No 1 +	No No Oms home	+ Jomson only
COMPUTER E-MAIL/INTERNET	NA No	Yes No	Around 20 * No	No No	NA No	* ACAP office only
RADIO NEPAL COMMUNITY RADIO FM RADIO	1969 No No	Yes No No	NA No No	NA No No	Radio Nepal No No	
AUDIO TOWER	No	No	No	No	No	
LOCAL NEWSPAPER NATIONAL NEWSPAPER WALL NEWSPAPER	No NA No	No Yes No	No Around 200 + No	No 6 No	No Gorkhapatra No	

Like transportation, communication is also difficult in this district. Telephone service in Mustang was started only in 2052 B.S. Before the introduction of telephone service, the only means of communication were telegram, postal service and oral exchanges. News and information was also carried by travelers by words of mouth.

Nepal Telecommunication Corporation (NTC) has distributed 13 telephone lines in Jomsom, 3 in Marpha and 3 in Kagbeni VDCs through the MARTS system. The telephone lines at the CDO Office, LDO Office, Police and Army Barracks are used for official purpose and the rest are used for commercial purpose such as for ISD/STD services. In Jomsom, the NTC Office has no direct access to ISD services. They have to go through the Kathmandu Exchange Office for international calls.

There is no Radio Paging service or Cellular Mobile Phone. There are no E-mail/Internet facilities also. Out of the 16 VDCs, 8 have telephone facilities with limited number of lines. They cover about 25 percent of the population.

After the installation of the telephone facilities, access to information has become easier and faster. Public awareness has increased and the local people have benefited in information sharing, product development and marketing. The tourism sector has especially benefited immensely from these facilities.

The telecommunication service is not reliable and the capacity of the existing system (MARTS) is very limited. In Jomsom, the VSAT system, which has 3 lines, is also available. This system is directly linked to the satellite, so this system is more powerful and reliable. But it is very expensive and not affordable for the local people. People have to pay Rs.24 per minute whereas in MARTS system, they have to pay Rs.12 per minute. Nobody appears interested to use the VSAT line.

The major problem with the telephone service is its unreliability. Telephone lines are interrupted frequently and maintenance poses a major problem. If the telephone line is dead, it takes 7 to 10 days to repair the line. The distribution of telephone lines is alleged to have been done in an unfair manner. It was highly politicized. Political leaders and their relatives are said to have got most of the telephone lines. Even Mustang Hospital and School have no telephone lines. These leaders are said to have used their power to get the telephone lines.

Radio is a very popular and effective medium of communication in this district. But the reception of Radio Nepal is not clear. The quality of reception is very poor during the day; it is relatively good in the morning and evening.

People sometimes listen to the regional program of Radio Nepal from Surkhet but not the program broadcast from Pokhara. The reception of BBC and All India Radio is better than Radio Nepal. However, most people prefer to listen to Radio Nepal. Next come the BBC Nepali Service, BBC Hindi Service and All India Radio in order of preference. Voice of America, Radio Beijing and other Radio services can also be heard in Mustang district, but the people did not show much interest in them. Nepali and Hindi are the common languages which radio listeners prefer.

In the villages, most of the people do not listen to radio because they do not have radio sets of their own. Most of them are the poor and illiterate and do not easily understand even the Nepali language. The young people use radio to listen to songs instead of news or other information programs. They prefer to use tape recorders than radio for their entertainment.

The signals of Nepal Television do not reach Mustang district, nor is there any private or cable television. However, satellite television channels first appeared in Mustang in 1985. About 100 families in 16 VDCs like Tukuche, Marpha, Jomsom, Kagbeni, Jharkot and Muktinath are viewing these channels. The most popular channels in these areas are Zee TV, Zee News, Star TV, Star Sports, SONY, BBC, CNN, Star Plus, and PTV. It is observed that television is being used only for entertainment. Television as a source of information seems to be overshadowed by their overwhelming use for entertainment.

Irregular supply of electricity, unavailability of repair and maintenance services for TV sets are the main problems of television viewing in Mustang district. For any repair work, they have to be taken to Pokhara.

The demand for Nepal Television is very high in Jomsom. People are expecting NTV broadcasts but they don't know how soon. They suggested that satellite broadcasting is the only solution for the NTV programs to cover Mustang district.

In Jomsom, there are few computers, one in the Annapurna Conservation Area Project (ACAP) office and another in the District Development Committee (DDC) office. Since the staff that operated the computer at the DDC office was transferred the computer is presently not being used.

There are two fax machines in the HMG offices, one in the CDO office and another in the DDC office. Thus, the general public has no access to fax service. Jomsom Resort Hotel, a newly constructed five-star hotel, also has a computer and a fax machine for their own use.

The circulation of national newspapers and magazines in this district is very limited. So it is very difficult to get newspapers on time. If the Pokhara-Jomsom flight is cancelled, these newspapers also get held up. Among the 75 district headquarters of Nepal, Jomsom is at the highest elevation of 2,700 metres, having snowfall for about 4 months in a year. Thus, Jomsom airport is not usable for several months. Newspapers are, therefore, unavailable for those winter months. Even in the remaining months it is irregular due to frequent interruptions in air flights. Government offices, hotel and lodges are the

main subscribers of these newspapers. The newspapers which have highest subscription are *Kantipur*, *The Kathmandu Post*, *Himal* (Nepali), and other weekly papers like *Bimarsha*, *Dristi*, *Deshanter* and *Chhalphal*. The local people are not interested in newspapers. The only one stationery shop, which is located in Jomsom, is not willing to sell newspapers because nobody wants to buy them. There is no printing press. Printing work is done in Pokhara.

The means of communication indicate distinctions in the economic status of the people. Those who have access to it are found to be richer than those who have none. The urban population living along the road to Jomsom, Marpha and Kagbeni look totally different from the villagers. They are rich, educated and have good access to radio, TV, newspapers, etc. This shows a great contrast between urban and rural people regarding their access to these means of communication.

Profile of Jumla District

It is a poor and difficult district in the far western part of Nepal. However, it is one of the most beautiful areas in terms of natural beauty. Jumla is often cited in public discussions as a remote, mountainous and inaccessible region. In that sense it has received a lot of public attention. The government has consequently given priority to develop transport, communication and other social services in this district. There are regular air services to Jumla from Nepalgunj. Many Nepalese airlines operate their services in this route as they find it profitable. The government has been supplying foodgrain, fertiliser and other agricultural inputs at heavily subsidised rates.

The following table gives a comprehensive picture of the communication status of this district.

Current status of the means of communication

Means of communication	Starting Date	Present Availability	No. of Users	No of Service Providers	First Provider	Remarks
TELEPHONE FAX	2051 B.S. NA	Yes Yes	161 4	60-70 1	NTC NA	
NEPAL TELEVISION PRIVATE/CABLE TV SATELLITE CHANNEL	No No 2043/44	- - Yes	- - 103-150 disc+	- - NA	- - NA	+ Jumla headquarter areas only
COMPUTER EMAIL/INTERNET	2053 B.S. 2054 B.S.	Yes Yes	8 Offices 5 Offices	NA + NA*	KCST KCST	*+ Now local provider not available but coming soon. For emergency cases they provide these facilities to the public.
RADIO NEPAL COMMUNITY RADIO FM RADIO	2023 B.S. No 2056 B.S.	Yes No Testing phase	50% of population No NA	NA No NA	NA No NA	FM Band is in testing phase
AUDIO TOWER	No	No	No	No	No	
LOCAL NEWSPAPER NATIONAL NEWSPAPER WALL NEWSPAPER	No NA 2054 B.S.	No Yes Yes	No 700 copies per week Campus family	No 3 1	No NA Campus	

Telephone was introduced in Jumla in 2051 BS, about six years ago. At present, 158 telephone lines have been distributed to government offices, NGO/INGOs and the public. C-DOT and VSAT telephone systems are operating in Jumla.

Purpose of Telephone Use

Purposes	Number and percentage of users
Personal information	50
Business	15
Political	10
Official	15
Others	10

Source: Field Survey.

The above Table shows that half of the use deal with personal information. Business and official communication share 15 per cent each of the transactions. Political information occupies 10 per cent of the total.

Television was introduced in this remote district more than ten years ago. However, NTV cannot be watched in Jumla. Only satellite TV channels are available. These channels are provided to three VDCs including the district headquarters. The distribution of satellite TV channels started in 2043/44 B.S. About 150 households use these channels. People are watching TV mainly for entertainment. The following survey shows the heavy bias toward entertainment. News occupies ten percent of the total viewing. The satellite TV programs watched by the people are ZEE TV, BBC, ZEE Cinema and Doordarshan.

Types of Programs watched

Programs	% of total number of viewers
Agriculture	-
Health	-
Awareness Programs	-
News	10
Entertainment	90

Sources: Field Survey

There are only 14 computers in Jumla district. Only 8 offices use computers. The use of computers started in Jumla in 2053 B.S. E-mail and Internet facilities are available only in NGO and INGOs offices. Due to the C-DOT system of telephone line, e-mail and Internet facilities cannot be used effectively.

Radio is popular in Jumla. Radio Nepal, BBC, Voice of America and All India Radio can be heard in this region. Radio Nepal can be heard only on the medium wave. But in the day and evening time Radio Nepal's reception is not clear. So the coverage of Radio Nepal is small with the result that its impact is also minimal. The people listen radio primarily for entertainment and not for information. So they listen mostly to music programs, games, etc.

Quality of Radio Nepal Program

Time	Quality of Broadcasting
7:00 PM to 6:00 AM	Normal
6:00 AM to 9:00 AM	Noisy
9:00 AM to 5:00 PM	Worst
5:00 PM to 7:00 PM	Noisy

Sources: Field Survey.

There is no local newspaper. A few national newspapers like Kantipur, Nepal Samachar Patra and Gorkhapatra are available. There is no audio tower in Jumla. The Jumla Campus is publishing one wall newspaper.

Chapter 4

Visible impact of communication

Modern communication has shown visible impact on the life and development of the people living in different parts of Nepal. Case studies have been recorded in some districts of Nepal during the field survey made in the course of this study. They are quite revealing in terms of the importance, usefulness and potentiality of communication tools in the villages of Nepal.

Case 1: Radio

In Ward No. 9 Barangdi of Palpa, there is a family with an orange farm. The farmers were not getting good quality oranges in their harvest. Fortunately, they listened to the agriculture programs over the radio, from which they gained the knowledge to protect their oranges from diseases. They sprayed the pesticide prescribed in the radio broadcast and protected the crop during the flowering time. They got a better harvest, thanks to the information.

Case 2: Newspaper

In the same village, an incident took place some six months before, in which about seven men, local leaders, forced a woman, Sumitra Basyal, to move around the village completely nude on the allegation that she was a witch and had turned insane. This was repeated after some time. Meanwhile, the whole episode was published in a local newspaper. As a result of this publicity, it was stopped. The exploitation of a village woman came to a halt due to the newspaper reporting.

Case 3: Telephone

In Bhairabsthan- 4, Masure, Palpa, Netra Prasad Khanal, a young man, went to Malaysia for a job. But he could not get a job. Due to visa problem, he was put in jail. Fortunately and by chance, he succeeded in calling home in Palpa. As a result of that telephone call his parents were able to pay the Malaysian government to enable Mr. Khanal to return home. Evidently, this was made possible because of the telephone facility. Such cases are commonly heard in various villages of Palpa.

Case 4: Telephone

In Bakamalang - 3, Palpa, Sher Bahadur Thapa was happy to contact his son in India over the telephone. His son had gone to India 10 years ago for work. But he had not written letters to his parents. His parents were worried about his whereabouts. By chance, Sher Bahadur got the telephone number of his son and made a call. When he heard his son's voice at the other end, his joy knew no bounds. Sher Bahadur always recounts his story to emphasize the importance of the telephone.

Case 5: E-mail/Internet

In Nov. 1998, at the opening ceremony of a hospital in Butwal which is donated by Japan, some visiting Japanese reporters of the *Mainichi Shimbun* wanted to send news and photos to their papers in Japan. They had digital cameras. So, the possibility looked dim. Fortunately, they went to Star Computer which provided them the connection to Kathmandu and succeeded in sending their material via the Internet. The Japanese were happy to enjoy the facility in a rather distant part of Nepal.

Case 6: Radio

A villager of Jumla said, "According to my parents when democracy was introduced in Nepal nobody in my area knew about it. It is because there was no radio or telephone at that time. Information

was coming to our region only through the government officials. It was only after five years in 2012 B.S. that people came to know about democracy when new officers from Kathmandu arrived here”.

Case 7: Radio

A young man recounted his joy of listening to the radio in the following words, “It was 2046 B.S. The whole country was enthusiastically involved in the democratic movement against the Panchayat regime. People of Jumla had also joined the movement. I was one of the activists. Along with my other friends I was arrested; but a few days later we were all set free one evening. We were surprised by our sudden release. A curfew was still in force, so we stayed indoors. At about 11:15 P.M. I accidentally switched on my radio. I was astonished that Radio Nepal was broadcasting even at that late hour. After some time we heard on the radio that all political parties were now free to function. We were so excited. We immediately started celebrating, thanks to the information that the radio provided.”

Case 8: Fax

Tribhuvan University in Kathmandu announced the results of an examination. Students in Jumla who had taken the test did not get the results. Moreover, the last date for filling out forms for further studies was nearing. The students did not know what to do. They called Kathmandu several times for the results but were unable to get them. The only way the results could reach Jumla quickly was by plane. But the flights had been cancelled for several days. They tried frequently through the STD service. But to no avail. Someone noticed a "Fax" sign on the shop window and requested the university to send the results by fax. To their great joy, the results arrived the next day. They could fill out the forms on time.

Case 9: E-mail

E-mail started in Jumla in 2054 B.S. This new technology was received with great interest and curiosity by the local people. Once a local gentleman wanted to send a letter by e-mail. It was typed on the screen and sent. When told that his letter had already been sent and asked to make the payment, he protested. He said, “I can still see my letter on your screen. How can you tell me that it is gone?” When explained how the e-mail works he was satisfied. People want to know more about it and be able to use it.

Case 10: Television

An incident in Jumla revealed how powerful television can be, even though in this instance it was on the negative side. Two young boys, who were the sons of a local blacksmith, broke into a shop for sweets, biscuits, money and marbles. The police arrested them. When asked, they confessed to the police that they had opened the lock with a metal saw in the same way as they had seen in a television program about a burglary.

Case 11: Television

Another episode is more horrifying. Encouraged by a television program about stealing money three boys of the Jumla Orphanage had stolen some money 8 years ago. They hid the money in a secret place and started spending it watching video shows. In one video film they witnessed a new theme in which the burglars kill their team-mates to increase their share of the money. Influenced by this film, two of them planned to kill the third. They actually killed one of their friends with a khukri by hiding their identity behind masks. They were arrested by the police but as they were under-age, they were set free. But later on, the dates of their birth on the citizenship certificate were altered to declare them adults and sentenced to life imprisonment.

Case 12. Alternate media

In the village of Palung in Makwanpur district, the villagers have stopped playing cards and other local games involving states. Reason? They are genuinely afraid of their indulgences being broadcast from

the audio tower installed in the village. Getting one's name tainted with a gambling charge is considered a slur on their image. Even the level of alcoholism has markedly declined. Village children keep themselves constantly busy preparing cultural activities that the local communication unit holds every week.

Case 13. Local broadcast

In the Madi village of Palpa, a news broadcast on the local audio tower created a ripple. It had to do with the second marriage of a man who said he married a second time because his first wife gave birth to a baby girl instead of a son. The result was that from then on nobody dared wed a second time for fear of being publicly exposed. The other positive effect of the program was that the women could listen to it while attending to their household chores or in the farms.

Case No. 14. Audio tower

The Palung residents have evidently benefited from information on the vegetable prices in the Kathmandu Valley as bulk of their produce is supplied to the market in the capital. Prior to the operation of the audio tower, the middle men paid the villagers prices much lower than they actually deserved.

Case No. 15. Wall newspaper

In Dhading district, the villagers keep track of the community-forestry activities through a wooden-slate wall newspaper which informs them of who has violated the rules and what penalty has been imposed on the person concerned. The wall newspaper also informs the villages of the dangers faced by the wildlife in certain forests and what their duty is in protecting the forests and the wildlife species.

Case No. 16. Audio tower

In Chidipani village of Palpa, when a house caught fire, it was immediately broadcast over the audio tower. The villagers rushed to the spot and saved it from being completely gutted.

Case No. 17. Print media

In Dharan, a child journalist (high school student) wrote about a local drug addict who spent all his money on drugs and had nothing left to pay for his children's education in wall newspaper. The drug addict physically assaulted the young journalist. Undaunted, the journalist continued to report not only on the drug addicts but also on the alcoholics who too threatened to harm him.

Chapter 5

National Vision and Future Plans

It is evident that Nepal has fully realized the importance of information and communication for national development. The government has made this evident by establishing a separate Ministry of Information and Communication, which is generally headed by a senior or influential member of the cabinet. Even during the Panchayat era, it received special attention when a national communication plan provided it greater priority and restructured the official communication agencies.

In continuation of this high priority assigned to information and communication, the Ninth Plan (1997-2002) provides for the following:

1. As information sector remains an immensely dynamic sector, a cell will be formed within the National Planning Commission with a view to formulating a contemporary information-technology system to cope with the advancement in this field at the global level. This cell will formulate and implement policies and programs in coordination with the government agencies using the information technology and systems in such areas as education, health, agriculture, finance, communication, commerce, etc.
2. In order to provide information to the common people in a smooth and easily accessible manner, a liberalization policy will be adopted in the information and communication sector. In this process, national communication infrastructure will be developed and expanded through the use of modern communication technologies such as optical fiber, satellite, ATM, etc.
3. Information systems will be initiated and developed for enhancing working capability and competence of various related institutions. In order to ensure the availability of information to the common people, a networking system will be built to which agencies involved in study, research and development activities will also be integrated.
4. With a view to developing competent human resources required for an Information Age, the education policy will soon be updated and then effected.
5. As there will be a wider use of computers while developing information systems, facilities will be provided to manufacture computers and software within the country and, through this measure, private sector will be encouraged to build such infrastructure as Virtual Park, IT Park, etc. For the purpose of supplying skilled human resources for software production and development, a software institute will be immediately operated in the private sector involving the government sector as well.
6. Legal recognition will be rendered to the business activities conducted through such instruments as Intellectual Property Right and Electronic Media which are considered necessary for the sufficient production, development and export of software.

Computer Policy and Software Development

In consonance with its national policy the Government announced the following strategy as a Computer Policy for the development of computers and software in the budget speech of Fiscal Year 1999-2000.

It said, "The policies related with Information Technology and enactment of Cyber Laws will be enforced for its development and expansion. Telecenters will be established in the five development regions with Internet and Intranet facilities extended in all those regions. A computer development program will be initiated. Computer education will be encouraged in the universities and schools. Likewise, simplified legal and policy framework will be adopted software experts."

Telecommunication policy

With the above vision in mind, the government has formulated the telecommunication policy to promote its development both in the public and the private sectors. The telecommunication sector has been granted full autonomy for its development and management.

The following measures have been initiated to accomplish the objectives of the national vision and strategy:

1. Operation of Land Mobile Communications Services: Recently the Ministry of Information and Communications (MIC), HMG has given permission to Nepal Telecommunication Corporation for operating Land Mobile Communication Services. As personal mobile-satellite services are becoming more widely available and the equipment is getting smaller and cheaper, NTC has decided to expand its services using the Inmarsat terminal. With the use of this service, people will be able to communicate to any part of the world, no matter where they are. The system offers highly reliable means of communication from anywhere in the world without depending on the local network or terrestrial communication. The system has been very useful during natural disasters or when important news is breaking.
2. Internet Service: In today's world of Information Technology, Internet has become an integral part of people's lives. So, in the near future NTC is offering an Internet service as a hub for ISPs and for its own internal use. With the completion of this project, local ISPs can have direct international link via NTC's network at a reasonable rate. Consequently, ISPs will be benefited from the reduced price, thereby making the Internet service less costly to the end users.
3. Pay phone service: In response to the customers' need for easy access to the telephone services, NTC has decided to introduce public pay phones in the major cities like Kathmandu and Pokhara. NTC hopes that after the completion of this project, telephone services for the people who don't have their own telephones, will be benefited by making public telephones as easy and comfortable as possible. Installation of these smart pay phones will provide such advantages as: convenience, accessibility, security in using the smart card, simple and quick maintenance, and rapid installation.
4. Satellite Trunk Network Project: At present, there is no alternative route provision in the national trunk network of NTC. Due to various reasons, transmission links have been disrupted in the past a number of times causing breakdowns in communication service. Therefore, it has become essential to increase the reliability of the trunk network from security as well as financial point of view. In order to avoid such interruptions in the future, NTC is setting up a satellite-based trunk network as an immediate solution. After the completion of this project, Biratnagar, Bhairahawa, Pokhara and Nepalgunj will be

connected to Kathmandu using the satellite medium, thereby increasing the reliability of the National Trunk Network.

5. Private Sector participation: The government will also call on the private sector to operate basic telephone services like those of Nepal Telecommunication Corporation. The government does not plan to protect NTC at the cost of efficiency in public services. The private sector has already been invited to operate telephone service under WLL (Wireless Local Loop) system, which requires private operators to rely on NTC's exchange system.

Print Media

In line with the freedom of the press granted by the constitution of Nepal, the government has adopted policies to help the print media develop in an effective way. There has been no interference in the organization and operation of the private press. The government continues to grant special customs discounts to publishers while importing computers and printing equipment for publishing newspapers. It has reiterated its commitment to grant full autonomy to the state media in its management and development. The government plans to grant increased autonomy to the state-owned electronic media and proceed with the privatization process at the Gorakhapatra Corporation.

Television

Considering the difficult terrain of the country, it is almost impossible for NTV to reach the entire population without satellite transmission. In keeping with the pace of development, NTV is planning to use a satellite channel in transmitting its programs in the near future. This will not only cover the entire country, but also make its signals available to Nepalese living abroad.

The issue of satellite transmission has been incorporated in the Ninth Five-Year Plan (1998-2002) of Nepal. It mentions that the first two years would be devoted to making such preparations as network planning, studio design, maintenance center and calibration lab, research on the possibility of participation from the private sector, equipment purchase, etc. Transmission, program production, updating, evaluation, etc. would be carried out in the following two years. A channel was to be dedicated solely for Distance Education.

The NTV is now making these preparations. Programs have been accordingly planned and a training center is soon to be established. Nepal TV will be operating with state-of-the-art equipment.

Chapter 6

Opportunities and constraints

Information technology has taken a giant leap forward around the world. With a telephone and a computer, one can access any kind of information available in the world. The twenty-first century has many miracles to unfold in this sphere. Mankind stands at the threshold of an undreamt-of revolution.

As far as Nepal is concerned it is only a handful of privileged people that have access to such information and the capacity to use it for a development purpose. Like in many developing countries, the vast majority of people in Nepal are untouched by this upcoming phenomenon. In the rural areas the only printed materials that one sees are children's textbooks, labels and commercial wrappers, and posters and pamphlets during elections. It would be naive to expect people in the rural areas to enter into this new arena in the near future.

During the past five decades, incredible amount of resources have been pumped into the development sector in the hope of raising the living standard of the people. In this long and tedious process, it became clear that whatever the merit of development targets, nothing is achievable without people's empowerment and their active participation. Knowledge or information is undoubtedly the key to empowerment, and communication is the vehicle to impart this tool to the people.

The year 1990 marked a watershed by introducing a full-fledged parliamentary democracy in Nepal with full freedom of expression. But, the underprivileged segment of society living mostly in the villages continues to be deprived of the practical means to utilize these freedoms.

Admittedly, the mass media has not been able to play its role as an agent of change and development. The government continues to retain its grip on the powerful electronic media as well as the two large newspapers.

Extremely low literacy rate and transportation bottleneck prevent the growth and popularity of the print media. Television is a new and costly medium. Radio broadcasting has a wider coverage but is far from becoming an effective medium. Linguistic and ethnic diversity reduces the usefulness of a centralized mass media system.

A comprehensive review of the means of communication indicates clearly that modern communication has already made its debut in Nepalese society. The question at this stage is not whether Nepal should adopt modern information technology but how to make it more accessible to the people at an affordable cost. Serious attention needs to be given to measures that lead to the fulfilment of the vision and strategy the government has adopted for this sector. The policies and programs incorporated in the periodic plans of the government are found to be in tune with the needs of the time but how to implement them to achieve the desired objectives is a question that needs to be answered.

Serious thought must also be given to the possibility of developing the alternative media that can not only complement the mainstream media but can also independently serve as a strong communication tool for local development.

Alternate media

The concept of an alternative media, to put it in simple terms, is to use the traditional as well as modern means of communication in a way that meets the needs of local communities. It can be considered a communication system *of* the community, *by* the community and *for* the community. It neither competes with nor contradicts the goals of the mainstream media. Its justification lies in its power to meet the citizens' needs at the local level and in its ability to empower them. In the unfolding Nepalese context, the alternative media promotes traditional means of communication like the street drama and community singing, and the more modern FM radios and other innovative methods of communication.

Below are examples of some of experiments in community communication being tried in Nepal with varying degrees of success.

1. Wall newspapers:

A wall newspaper is a paper printed on only one side with big letters and pasted on walls of public buildings and tea shops for the benefit of the general public. It contains information relevant to the population of a specific area. The concept of the wall newspapers has spread to different parts of Nepal like wild fire. Twenty such newspapers come out every month in the district of Dhankuta alone. Similar publications are appearing in Dhading and Morang districts.

2. Community audio towers:

In this case community broadcasting is carried out with an amplifier, microphones, and speakers using poles or trees as towers. Using a number of speakers it is possible to reach different wards of a village development committee. It started in the Madi Valley of Palpa at the initiative of local women for the first time in Nepal. It has since been replicated in the Danda Bazar of Dhankuta, Palung of Makwanpur and some villages of Morang district. These community broadcasting units have played an effective role in the dissemination of information, besides inculcating a sense of self-dependence and self-esteem among the villagers.

3. Cassettes magazine:

A cassette magazine comprises materials of special interest to villagers recorded on a small cassette. It is a new means of communication which was introduced for dissemination of news and other useful information to the villagers. The magazine also provides light entertainment--music, jokes and tidbits. The program is named *Ukali-Orali* (ascent and descent) and more than 12 programs have already been produced and distributed.

4. FM broadcasting:

The Nepalese government has opened up a new vista of possibilities in the area of mass communication by agreeing to grant licenses to private agencies for FM broadcasting. Already there are 6 stations broadcasting programs in the Kathmandu Valley, one in the public sector and five in the private sector. The Madan Pokhara Village Development Committee in Palpa district has also started broadcasting four hours a day and a FM station in Manigram of Rupendehi district broadcasts six hours a day. These stations operated by local people are considered more relevant and more effective in promoting development.

5. Participatory video:

A participatory video is an audio-visual programme that is produced by the local people themselves. The program was launched in Surkhet district in the 1980s, followed by Madan Pokhara village of Palpa and Palung of Makwanpur districts. The program allowed the village women to ventilate their views and grievances, and contributed substantially to empowering the downtrodden.

6. Local television:

Local television is a small broadcasting facility for a local community only. Ratna Cable Television of Palpa is a good example. The residents of Tansen watch a 2-hour long locally produced program every Saturday. The service is continuing with the co-operation of some local volunteers. With some technical and financial support, this service can make greater impact in promoting the flow of information audio-visual means. RatnaCable's experience can be replicated in other areas of the country.

7. Street drama:

The street drama is a traditional communication tool used in Nepal. At a time when no modern means of communication existed in Nepal, the street drama served as the only effective means of message delivery in the society. It is refreshing to see this phenomenon making a comeback with a number of artist groups promoting and practicing it.

Chapter 7

Recommendations

As far as formulating the correct policy for the development of communication and information is concerned, there is no doubt that the Ninth Five-Year Plan has given full expression to the objectives of the government. One basic recommendation that can be made in this regard is that the government should try its best to implement them.

In this context, the following targets set by the plan should be attained within 5 years of the plan period.

1. NPC Cell:

A cell has been proposed within the National Planning Commission with a view to formulating a contemporary information technology system that keeps abreast of advancement in this field at the global level. This cell will formulate and implement policies and programmes in coordination with the government agencies dealing with education, health, agriculture, finance, communication, commerce, etc.

2. Infrastructure expansion:

In order to provide information to the common people in an easily accessible manner, the plan has pledged to adopt a liberalization policy in the information and communication sector. To some extent, it has already done so. This process of liberalization should continue in earnest. In this process, the plan has spoken of national communication infrastructure and, for this purpose, the use of modern communication technologies such as optical fiber, satellite, ATM, etc. should be facilitated.

3. Human resource development:

The plan has also pledged to initiate information systems for enhancing institutional capability and competence of various organisations. It has also pledged to build up a network which will integrate agencies involved in study, research and development activities in this sector. For developing human resources required for an Information Age, it has mentioned improvement of the education system. As these ideas are in tune with the needs of the time, they should be carried out in earnest and without delay.

4. Hardware and software development:

As there will be wide use of computers in developing information systems, the Plan mentions that facilities will be provided to manufacture computers and develop software within the country. Accordingly, the private sector will be encouraged to build infrastructure such as Virtual Park, IT Park, etc. For the purpose of supplying skilled human resources for software production and development, a

software institute will be immediately operated in the private sector with government support. As these measures are considered timely, they should be undertaken immediately.

5. Mobile phone:

The government, on its part, has made several commitments in this sector, which are in consonance with the stated policies. The Ministry of Information and Communications has given green signal to Nepal Telecommunication Corporation for operating Land Mobile Communication Services. This service enables the people to communicate to any part of the world, no matter where they are. The system offers highly reliable means of communication globally without going through the terrestrial network. It is indeed a big leap forward in keeping pace with the globalization process.

6. Internet service:

Today Internet has become an integral part of people's lives. To promote its more extensive use NTC is offering Internet service as a hub for ISPs and for its own internal use. With the completion of this project, local ISPs can have direct international link via NTC's network at reasonable rates. Consequently, the cost of this service will drastically come down. This is indeed a step in the right direction.

7. Public pay phone:

In providing easy access to telephone services, NTC has decided to introduce public pay phone in the major cities like Kathmandu and Pokhara. The completion of this project will make telephone services easily available for those people who don't have their own telephone lines. It will add convenience, accessibility, and security for the people in using the service. There is no reason why it should not be implemented immediately.

8. New trunk network:

NTC is also setting up a satellite-based trunk network to avoid frequent interruptions that users are experiencing. The completion of this project will link Biratnagar, Bhairahawa, Pokhara and Nepalgunj with Kathmandu through satellite thereby increasing the reliability of the National Trunk Network. This will indeed enhance efficiency and effectiveness communication.

9. Cyber laws:

The government came out with a computer development policy during the budget speech of Fiscal Year 1999-2000. The policy related to formulation and enactment of Cyber Laws for the development and expansion information technology. Accordingly, the government pledged to establish telecenters in the five development regions with Internet and Intranet facilities. These measures deserve to be implemented to bring the far-flung regions of the country under the umbrella of modern communication.

10. Computer education:

The government also promised to encourage computer education programs in the universities and schools to cope with the growing demand for proper training. The survey in four districts of Nepal has clearly pointed out the acute lack of training facilities in computer technology despite high public awareness of its usefulness.

11. Private sector involvement:

The government has formulated a policy to break the monopoly of the Nepal Telecommunication Corporation in providing telecommunication services to the people. In this respect, it has already taken some measures to involve the private sector in operating basic telephone services. Consequently, the private sector has shown keen interest in joining this sector and is already engaged in the WLL (Wireless Local Loop) system. The government should continue to provide incentive and encouragement to the private sector to become more involved in the business of information technology.

12. Liberalization of electronic media:

The government is committed to grant increased autonomy to the electronic media, Nepal Television and Radio. Similarly, it has gone on record as being in favour of privatizing the Gorakhpatra Corporation. Not only should the government encourage more private sector involvement in the electronic media but it should also detach itself from operating newspapers in tune with the democratic spirit of a parliamentary system.

13. Satellite broadcasting:

Considering the difficult terrain of the country, it has been realized that it is not possible for NTV to reach the entire population with the terrestrial network. It is for this reason that NTV has planned to go satellite for transmitting its programmes. This will boost Nepal's international image and provide support to tourism. The government should take this measure seriously as it has remained pending for years despite political commitment.

14. The Alternative Media:

Going by the experiences gained in many parts of the country relating to grassroots communication it is highly recommended that the alternative media be taken up for using the power of information and communication in consolidation of democracy and development. The potentiality of this media has already been explained. The activities in this field are taking place in a scattered manner. They can be brought under a comprehensive umbrella to make them more accessible all over the country, especially in the rural areas.

Chapter 8

SUMMARY AND CONCLUSIONS

The present study is the first of its kind in examining and assessing the access to information in the rural areas of Nepal. The study must be considered timely because it comes at a time when the communication revolution is sweeping across the world and people even in the remotest parts of the world cannot remain unaffected. This has certainly been the case in Nepal, and, the study which examines some of the very remote areas of Nepal has adequately revealed the growing interest of the people in the new information and communication technologies, the growing awareness in official circles of the need to expand and strengthen communication infrastructures to become globally competitive, and the possibilities of using modern information technologies in alleviating poverty which remains the principal concern of a country like Nepal.

What then are the main issues confronting a country like Nepal when considering the possibility or the inevitability of providing the people universal access to information? On the more philosophical side of this question lies responsibility of the government to provide the people their right to information, a provision contained in the constitution. It specifically mentions that the people have the right to demand information on any matter of public importance. The government is presently formulating a bill to make this provision feasible but it must restructure the information providing mechanism within the bureaucracy to establish a culture of openness that a democratic tradition demands. On the technical side the study has clearly pointed out that the Nepalese society, especially the rural segment of society, is at a very preliminary stage in the communication age in which much of the world is now functioning. Most of the districts examined are just beginning to use modern information and communication technologies: there are not enough telephone lines, computers have just begun to appear on the horizon, even radio and television signals are not reaching many areas of a geographically difficult country like Nepal and in a society where illiteracy is widespread the print medium has a very limited role.

While the development of information and communication infrastructure is at present an issue that must receive priority, equally important is the question of media content. It is evident from the present stage of the mass media and modern technology that much of what is published or broadcast is of little relevance to the lives of the majority of the people. This is specially so because over fifty percent of the newspapers are published in the capital and the rest in urban centres around the country and both broadcasting stations, Radio Nepal and Nepal Television, are located in the capital from which much of the daily programs are broadcast. The regional stations of Radio Nepal do very little programming and function more as relay stations than independent producers of locally or regionally relevant programs. The content of both the print and electronic media must be relevant to the local situation, more priority must be given to broadcasts in the local and regional languages to make the media content more useful and effective.

Extending this question of relevance to modern information and communication technologies, due priority must also be given to developing relevant and universally compatible software. Much needs still to be done to make it possible to transfer information in the Devnagari script. It has already been mentioned in this report that the private sector is fully involved in the field of information and communication technology development. The government should not only encourage greater

involvement of the private sector by introducing new schemes that provide attractive incentives and security for increased investment.

On the brighter side of this spectrum is the growing awareness in society of the need for information and communication as key elements in social and economic development. The Ninth Plan appears to have spelled out specific goals to be achieved to make Nepalese society more competitive in an age when globalization is becoming a reality. Among the recommendations made in an earlier chapter is one that relates to the need for implementing the programs chalked out in the Ninth Plan document. It is also heartening to find that the private sector has come forward as the principle investor in information technology and in providing information and communication services like email and Internet. In fact, the NGO sector, representing civil society, appears also to be better equipped to cope in an age in which life without modern information technology could become unthinkable. NGO projects even in remote districts like Jumla and Mustang seem to be using computers and email. The need now seems to be a well-thought-out program to expand the telecommunication infrastructures and introduce modern communication in parts of the country where possibilities exist. The present study does indicate these possibilities even in remote districts.

Formulating plans and programs, important as they are, is not enough. Many elements incorporated in the Ninth Plan have not been implemented and some of these elements may need review to see if they are even appropriate at this stage of the information revolution. What the government must do is to take concrete steps to identify those activities that will be effectively implemented and set aside adequate budget to be able to undertake the activities.

What, then should receive priority? This is a question that needs to be tackled in the background of the very scarce resources available in the hands of the government and the private sector for investing in an area that is expected to produce results in the long run. While considering the impacts of the various mass media, it was clear that the print medium has a very limited role because of massive illiteracy and insurmountable distribution problem. Television, too seems to have a limited role because of its cost and the need for electricity which is presently available to only 15% of the population. The priority, therefore, has to be given to radio which is inexpensive, easy to operate, extremely portable, and transcends literacy as a barrier. What is recommended in the document is the establishment of community radio stations that are of local nature, discuss local problems, can use local languages, become highly interactive and prove to be great educational value. It would be worthwhile for the government to consider setting aside some resources for promoting and establishing such stations in those parts of the country where active communities are ready to own and operate them. They have the prospects of becoming effective tools in development.

Two instances of women operating audio towers as medium of communication in different sections of the village are mentioned in the report. These communication media are effective instruments for women's empowerment and should be used as such. As one of the most disadvantaged groups in the country, the involvement of women in the operation of community media appears to be a step in the right direction. It was also shown by the present survey that the majority of those that enroll in computer training courses are women. A conscious effort to involve women in modern information and communication should set a healthy trend in the effective use of media in education and entertainment.

The present study has, for the first time, highlighted the possible role of community media in speeding up the process of social and economic development. No doubt, communication is now considered an integral part of the development process but the ownership and operation of these media by local communities appear to ensure their sustainability and effectiveness. This is a concept that is

already beginning to show good results. Community-owned radio stations, audio towers or wall newspapers have attained popularity and credibility that should enable them to play an effective role in the education of the people. Small, cost-effective and easily manageable media will, with their nationwide establishment, not only play an important role in local communities but can also become part of a network that will share and use information for public good. What has been started, though in a small way, must be considered the starting point for a new comprehensive information and communication policy.

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ANNEXES

Annex 1

Regional Distribution of Newspapers

Regions	Periodicity		Language					Total	%
	Daily	Weekly	Nepali	English	Newari	Hindi	Bhojpuri		
Mountain	-	-	-	-	-	-	-	-	-
Hills	1	26	27	-	-	-	-	27	8.71
Terai	22	141	160	-	-	2	1	163	52.58
Kathmandu Valley	23	97	102	11	5	2	-	120	38.71
Total	46	264	289	11	5	4	1	310	
%	14.84	85.16	93.23	3.55	1.61	1.29	0.32		100.0

Source: *Mass Media and Democratization, IIDS, 1996.*

Annex 2

Regional Comparison on the Status of Mass Media

Communication/1000 people	Year	India	Pakistan	Bangladesh	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted avg.)	Developing Countries (excluding South Asia)
Daily newspaper	1994	31	21	6	8	25	n/a	12	25	45
Radios	1994	81	88	47	35	201	17	118	79	184
TV sets	1994	60	20	10	2	70	n/a	40	50	145
Telephone	1994	11	15	2	4	10	7	48	10	34

Source: *Human Development in South Asia, 1998.*

Annex 3

Radios Licensed up to November 1999

Licensee/Station	Frequency	Power (Watt)	Approved Hours	Licensed on	Launched on
Radio Nepal	100	1000	17 hours	28/11/2052	30/07/2052
Radio Sagarmatha	102.4	100(20)	24 hours	05/02/2054	05/02/2054
Kantipur FM P. Ltd.	96.1	500	24 hours	06/11/2054	23/08/2055
Image Channel P. Ltd.*	97.9	500	18 hours	06/11/2054	17/08/2055
Kathmandu Municipality	106.7	100	24 hours	25/11/2054	01/06/2056
Hits FM P. Ltd.	90.4	500		08/05/2055	
Himalayan Broadcasting Co.	94.5	500	18 hours	08/05/2055	
Birat FM P. Ltd.	96.0	500		17/05/2055	
Madanpokhara VDC	106.9	100		18/09/2055	
Lumbini I&C Co-op**	96.8	200		20/09/2055	
Mankamana FM +++	92.9	250		16/07/2056	
Koshi FM P. Ltd.	95.3	500		01/08/2056	

* Its call sign is K.A.T.H. 97.9

** Lumbini Information and Communication Co-operative

+++ Licensed to Creative Multimedia and Entertainment P. Ltd., Manakamana FM is the call sign.

Source: Ministry of Information and Communication (MOIC)

Annex 4

Nepal Television Broadcasting System (PAL B, CCIR Standard)

S. No.	Transmitting Station	Channel	Vision	Audio Carrier Frequency	Remarks Carrier Frequency
1.	Phulchoki	5	175.25 MHz	180.75 MHz	Mother Station
2.	Jaleswor	11	217.25 MHz	222.75 MHz	Receive Phulchowki
3.	Namje(Bhedetar)	5+(off-set)	175.25 MHz	180.75 MHz	Receive Jaleswor
4.	Murti Danda(Ilam)	12	224.25 MHz	229.75 MHz	Receive Namje
5.	Daunne	12	224.25 MHz	229.75 MHz	Receive Phulchowki
6.	Sarangkot	7	189.25 MHz	194.75 MHz	Receive Phulchowki
7.	Tansen (Palpa)	5	175.25 MHz	180.75 MHz	Receive Sarangkot
8.	Chamere Danda (Nepalgunj)	5	175.25 MHz	180.75 MHz	Not Connected to National Network of Phulchowki
9.	Hetauda	4	67.75 MHz	62.25 MHz	Receive Phulchowki
10.	Butwal	7	189.25 MHz	194.75 MHz	Receive Daunne
11.	Kakani(Nuwakot)	11			Receive Phulchowki

Nepal Telecommunications Corporation at a Glance

S. No.	Title	Marg 2056	
1.	Telephone Exchanges in Operation		
	a) Locations		115
	b) Districts		65
	c) Number of Exchanges		119
2.	Telephone Lines		
	a) Installed Capacity		274430
	b) Distributed Lines		236816
3.	Total Number of Waiters		262801
4.	Classification of Exchanges	No Exch.	Capacity
	a) S-1240	17	47748
	b) E10B	19	23386
	c) SIEMENS	21	138289
	d) J. Rack	4	52907
	e) DTI		
	f) C-DOT	56	10620
	g) DIAX	1	480
	h) DMS - 10	1	1000
5.	Target of Tel. Distribution Within This Fiscal Year		38614
	a) Tel. Distribution upto this month (F/Y) (by exch)		1495
	b) Total tel. Distn. upto this month including mobile (F/Y)		16786
	c) Tel. line distribution on this month only (by exch)		2148
	d) Total tel. Distribution on this month including mobile		2578
	e) Target of this month tel. distribution		3635
	f) Monthly achievement of tel. distribution in %		70.92
	g) Achievement of tel. distribution % (F/Y)		43.47
6.	Home Country Direct Service Available Country		5
7.	STD and ISD Services Available		
	a) Zone		14
	b) Districts		75
8.	Countries to which ISD is available		131
9.	International Telephone Circuits in Operation (including microwave circuits with India & Bangladesh)		854
10.	Telegraph Services Available Stations		10
11.	Telex Services Available		
	a) Locations		10
	b) Districts		9
	c) Telex Capacity		768
	d) Telex Distributions		206
	e) International Telex Circuits in Operation		60
12.	Rural Telecommunications Services		
	a) Rural Stations (JICA)		9
	b) JICA subscriber (PCO-10, Subs-150)		160
	c) HF		5
	d) Marts Terminals		615
	e) Marts Repeater		99
	f) Marts Subscribers		3113
	g) VHF Subscriber		789

	h) VDC Coverage by Telephone		1535
13.	Wireless Services Available		5
	a) Electric Power		1
	b) Solar Power		4
14.	Bureaufax Services Available		
	a) Districts		9
	b) Countries		7
15.	Outgoing Collect Call Services Available		
	a) Countries		3
16.	Packet Switched Subscriber		18
17.	Leased Circuits		
	a) National		23
	b) International		9
18.	Domestic Microwave Channels		
	a) Total Installed Channels		33978
	b) Total Working Channels		20175
	c) V-SAT Stations		7
	d) V-SAT Capacity		18
	e) V-SAT Used cct.		15
19.	Inmarsat-Services		32
	a) Rental		10
	b) Service		22

Source: NTA

**Companies who provide services in the different communication sector (VSAT, E-mail
Internet, Radio Paging and Fax Mail**

(Up to Feb, 2000)

(A) Network Operators

- (i) Nepal Telecommunications Corporation, Pulchowk, Lalitpur

(B) Service Providers

(i) VSAT Network Providers

- (a) Mercantile Office System Pvt. Ltd., Durbar Marg, Kathmandu
(b) Worldlink Communications Pvt. Ltd., Jawalakhel, Lalitpur
(c) Communications and Communicate Nepal Pvt. Ltd., Jyoti Bhawan, Kathmandu
(d) Global Internet Services Pvt. Ltd., New Baneshwor, Kathmandu

(ii) Internet E-mail Service Providers.

- (a) Mercantile Communications Pvt. Ltd., Durbar Marg, Kathmandu *
(b) Computerland Communications System Ltd., Ram Shah Path, Kathmandu
(c) Worldlink Communications Pvt. Ltd., Jawalakhel, Lalitpur
(d) Capital Online Pvt. Ltd., Kathmandu Plaza, Kathmandu
(e) HTP Communications Pvt. Ltd., Kalikasthan, Kathmandu
(f) Everest Net Pvt. Ltd., Jawalakhel, Lalitpur
(g) Global Internet Service Pvt. Ltd., Kathmandu Plaza, Kathmandu
(h) Himalayan Online Pvt. Ltd., Samakoshi, Kathmandu
(i) INFOCOM Pvt. Ltd., Hattisar, Kathmandu
(j) Unlimited Numedia Pvt. Ltd., Khichhapokhari, Kathmandu
(k) Network Technologies Pvt. Ltd., Kamaladi, Kathmandu

(iii) Radio Paging Service Providers

- (a) Nepal Radio Paging Pvt. Ltd., Bhatbhatini, Kathmandu
(b) City Paging Pvt. Ltd., Kalikasthan, Kathmandu
(c) KAT Easy Page Pvt. Ltd., Pako New Road, Kathmandu
(d) Agni Paging Pvt. Ltd., Lazimpat, Kathmandu
(e) Digital Telecom International Pvt. Ltd., Tripureshwor, Kathmandu

(iv) Fax Mail Service Providers.

- (a) Mercantile Communications Pvt. Ltd., Durbar Marg, Kathmandu
(b) Computerland Communications System Ltd., Ram Shah Path, Kathmandu
(c) Worldlink Communications Pvt. Ltd., Jawalakhel, Lalitpur

Note: Internet Access Points in Nepal up to Jan 2000 -Nepalgunj, Butwal, Pokhara, Bharatpur, Hetauda, Kathmandu, Birgunj, Dharan, Biratnagar

Source: Nepal Telecommunication Authority (NTA)

Jumla District
Special Rural Telecommunication Programme

No. of VDCs		30
Existing Services	C-DOT	1
	MARTS	3
Proposed Services		
VSAT in 057/058	-	14 VDCs
VSAT in 058/059	-	15 VDCs

SN	Village Development Committee (VDC)	Existing Services	Proposed VSAT Services	
			057/058	058/059
1	Chandanath	C-DOT		
2	Mahatgaun	MARTS		1
3	Talium		1	
4	Chunchaur		1	
5	Dillichaur			1
6	Guthichaur			1
7	Patarasi		1	
8	Depalgaun	MARTS		1
9	Gajyangkot		1	
10	Kartikswami		1	
11	Haku		1	
12	Lamra			1
13	Tamti			1
14	Tatopani	MARTS		1
15	Kudari			1
16	Lhi		1	
17	Mahadev		1	
18	Malika		1	
19	Badaki			1
20	Kalika			1
21	Mahabe			1
22	Dhap			1
23	Khanigaun			1
24	Narakot			1
25	Birat		1	
26	Kanakasundari		1	
27	Pandavagupha		1	
28	Bumramadichaur		1	
29	Malikabota		1	

30	Patmara			1	
		Total	4	14	15

Mustang District
Special Rural Telecommunication Programme

No. of VDCs	16
Existing Services Marts System	8
Proposed Services	
VSAT in 057/058	- 8 VDCs
VSAT in 059/060	- 8 VDCs

SN	Village Development Committee (VDC)	Existing Services	Proposed VSAT Services	
			057/058	059/060
1	Jomsom	MARTS/VSAT		1
2	Marpha	MARTS		1
3	Chhusang		1	
4	Kagbeni	MARTS		1
5	Charang		1	
6	Dhami		1	
7	Sanjung		1	
8	Lomanthang		1	
9	Chhosera		1	
10	Surkhang		1	
11	Jhong		1	
12	Muktinath	MARTS		1
13	Kunzo	MARTS		1
14	Lete	MARTS		1
15	Kowang	MARTS		1
16	Tukuche	MARTS		1
	Total	8	8	8

Palpa District
Special Rural Telecommunication Programme

No. of VDCs		65
Existing Services		17
Proposed Services		
VSAT in 059/060	-	31 VDCs
WLL in 057/058	-	16 VDCs
WLL in 058/059	-	7 VDCs
WLL in 059/060	-	9 VDCs

SN	Village Development Committee (VDC)	Existing Services	Proposed VSAT Services	Proposed VSAT Services		
				057/058	058/059	059/060
			059/060			
1	Bakamalang		1			
2	Gandakot		1			
3	Jhirabas				1	
4	Mityal	VHF	1			
5	Sahalkot			1		
6	Archale		1			
7	Darchha	VHF	1			
8	Galdha				1	
9	Khaliwan		1			
10	Rampur	MARTS				1
11	Siluwa				1	
12	Birkot			1		
13	Gejha		1			
14	Haklang		1			
15	Hungi		1			
16	Phoksikot			1		
17	Bahadurpur			1		
18	Devinagar	VHF				1
19	Jalpa		1			
20	Jyamire		1			
21	Rahabas			1		
22	Ringnaihar				1	
23	Chidipani			1		
24	Humin			1		

25	Pipaldanda		1			
26	Tanhu	MARTS				1
27	Gothadi		1			
28	Jhadewa			1		
29	Kasauni			1		
30	Koldanda				1	
31	Roopse		1			
32	Barangdi		1			
33	Chappani			1		
34	Chirtungdhara	PALPA EXC.				
35	Darlamdanda		1			
36	Khanichhap		1			
37	Khanigaun		1			
38	Nayamamatales	MARTS				1
39	Pokharathok			1		
40	Yangha		1			
41	Dobhan				1	
42	Madanpokhara	MARTS/VHF				1
43	Masyam	VHF				1
44	Telgha	EXC.				
45	Bandipokhara			1		
46	Bhairabsthan	MARTS				1
47	Deurali			1		
48	Khasyauli	MARTS				1
49	Argali	VHF	1			
50	Bodhagumba		1			
51	BK		1			
52	Khyaha		1			
53	Somadi		1			
54	Bhuwanpokhari		1			
55	Chhahara	MARTS	1			
56	Mujhung	VHF	1			
57	Siddheshwor	VHF				1
58	Kusumkhola			1		
59	Palungmainadi	VHF	1			
60	Phek		1			
61	Timure			1		
62	Baldengadhi		1			
63	Juthapauwa				1	
64	Kachal		1			
65	Satyawati			1		
	Total	17				31

Rupandehi District
Special Rural Telecommunication Programme

No. of VDCs	69
Existing Services	37
Proposed Services	
WLL in 057/058	- 32 VDCs
WLL in 059/060	- 20 VDCs

SN	Village Development Committee (VDC)	Existing Services	Proposed VSAT Services	
			057/058	059/060
1	Chhotki Ramnagar		1	
2	Devdaha	MARTS		1
3	Karahiya	MANGALAPUR EXC.		
4	Kerwani	VHF		1
5	Makahara	MANGALAPUR EXC.		
6	Siktahan	VHF		1
7	Badabar		1	
8	Chhipagadha		1	
9	Dhakadhai	MARTS		1
10	Pajarkatthi		1	
11	Patakhauri		1	
12	Pokharavindi		1	
13	Aanandavan	MANGALAPUR EXC.		
14	Gangoliya	MANGALAPUR EXC.		
15	Shankarnagar	MANGALAPUR EXC.		
16	Hatti Pharsatikar		1	
17	Madhubalia	MANGALAPUR EXC.		
18	Tikuligadha	MANGALAPUR EXC.		
19	Basantapur	BHAIRAHAWA EXC.		
20	Chilhiya		1	
21	Padsari	BHAIRAHAWA EXC.		
22	Bagaha		1	
23	Saimalar	MARTS		1
24	Khadwa Bangain		1	
25	Motipur	VHF		1
26	Parauha	MARTS		1
27	Manmateriya		1	
28	Manpakadi	MARTS		1

29	Sauraha Pharsatika	MARTS		1
30	Aadarshaamuwa	MARTS		1
31	Harmaiya		1	
32	Mainihawa	BHAIRAHAWA EXC.		
33	Dudharakshya	VHF		1
34	Gajadi	VHF		1
35	Rudrapur	VHF		1
36	Saljhandi	MARTS		1
37	Bishnupara		1	
38	Dhamauli		1	
39	Jogada		1	
40	Sadi		1	
41	Suryapura	VHF		1
42	Dayanagar	MARTS		1
43	Ekala	LUMBINI EXC.		
44	Khudabagar	LUMBINI EXC.		
45	Masina		1	
46	Tanuhawa	LUMBINI EXC.		
47	Aaama		1	
48	Bhagwanpur	LUMBINI EXC.		
49	Lumbini	LUMBINI EXC.		
50	Madhuwani		1	
51	Sipawa		1	
52	Betarueya		1	
53	Karauta		1	
54	Pharena		1	
55	Rohanihawa		1	
56	Semara		1	
57	Thumhapiparahawa	VHF		1
58	Asureni		1	
59	Bagauli		1	
60	Bogadi		1	
61	Majhagawa	MARTS		1
62	Rayapur	VHF		1
63	Silautiya		1	
64	Bairghat		1	
65	Gonaha	BHAIRAHAWA EXC.		
66	Hattiwangain	BHAIRAHAWA EXC.		
67	Kamahariya	VHF		1
68	Maryadpur		1	
69	Pakadi Sakron		1	
	Total	37	32	20

