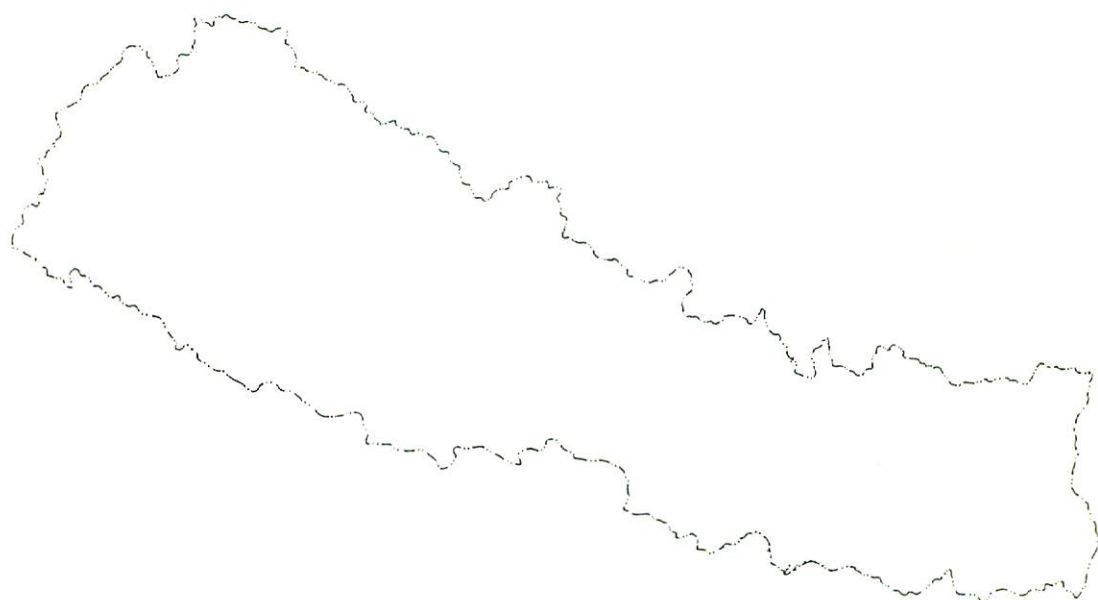


Population, Development and Environment in Nepal



DECEMBER 1987

**The Asian Population and Development
Association (foundation)**

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THE ASIAN POPULATION AND DEVELOPMENT ASSOCIATION, 1987

Nagatacho TBR Building, Rm. 710

10-2, Nagatacho 2-chome, Chiyoda-ku, Tokyo 100

Telephone : (03)581-7770

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Foreword

The Asian Population and Development Association (APDA) has collected and published data on population and development of the different countries of the world, since 1984. The survey on China focused on relationship between the birth rate and living standards in the rural area. The survey on Thailand concerns the population, living environment and welfare in Bangkok. In 1986, the APDA compiled the indices on population and socio-economic indicators of the world.

This year, we have selected the Kingdom of Nepal, a model case for study of population, development and environment, where the progress in development is not matching the rapid growth in population. The country is experiencing an environmental deterioration. Another reason for selecting Nepal was for their lack of proper data on population, development and environment.

The Association conducted the study under the leadership of Dr. Toshio Kuroda, Director Emeritus of Population Research Institute, Nihon University, and Mr. Jiro Kawakita, President of the Japan Nepal Society. Under their guidance, a group of experts was formed to analyse the data, and the result is this report. Members of the group were: Dr. Makoto Numata, Professor Emeritus of the University of Chiba, Dr. Hiroshi Ishii, Associate Professor of Institute for the Study of Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies, Dr. Koichi Niitsu, Professor of International Christian University, and Mr. Seigo Tsujii, Director of the Japan Nepal Society.

It is our hope that this report would assist the organizations and individuals actively engaged in population and development-related tasks in Nepal and other countries.

I would like to express our appreciation to the Japan Shipbuilding Industry Foundation (Chairman: Mr. Ryoichi Sasakawa) and United Nations Fund for Population Activities (Ms. N. Sadik) for their considerable support in the compilation of this report.

December 1987

Tatsuo Tanaka
Chairman
Asian Population and
Development Association

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CHAPTER 1

DYNAMICS OF POPULATION, NATURE AND ENVIRONMENT

Hiroshi Ishii

Associate Professor

Institute for the Study of Languages and Cultures of Asia and Africa

Tokyo University of Foreign Studies

1. Ethnic Groups, Natural Environment and Ethnic Migration

Nepal is a multi-ethnic country where people from the neighboring areas in every direction came and settled in various localities with diverse natural environments created by monsoon and the largest altitudinal difference in the world. To begin with, I list a broad classification of the languages of main ethnic groups and inhabitants in Nepal.

I Indo-Aryan languages

I-1 Nepali

I-2 North Indian dialects (Maithili, Bhojpuri, Awadhi, etc.)

II Tibeto-Burman languages

II-1 Tibeto-Burman languages in the Hills

(Limbu, Rai, Sunwar, Newari, Tamang, Gurung, Thakali, Magar, Chepang, Lepcha, etc.)

II-2 Tibetan dialects (Tibetan, Sherpa Jirel)

Among the above, names of the Tibeto-Burman languages of division II are also used as names of ethnic groups. The societies of the people whose mother tongues belong to the Indo-Aryan family in division I are based on the caste system and the people primarily refer themselves to caste groups. In most of their cases there is no comprehensive group name to refer to all the people who speak the same language (especially in the case of I-2). But the people of division I-1 whose mother tongue is Nepali, are sometimes called "Parvate Hindu (Hindus in the Hills)."

Apart from the above, there are groups of small population whose languages belong to the Munda (Satar), Dravidian (Dangari) and other families. The Tharus who are indigenous to the Tarai area in southern Nepal currently speak one or the other of the North Indian dialects, but it is sometimes said that they used to have their own language.

The above mentioned people have inhabited the areas of different natural condition. To clarify this point, the habitats in Nepal are divided into three regions; namely the Highlands, the Hills and the Tarai (Southern lowlands), and the natural environment and inhabitants in each of them will be briefly described.

(1) The Highlands:

This area (3,000m - 5,000m in altitude) covers the Tibetan plateau on the northern side of the Himalayas and a part of the highlands on its southern face. There are settlements even above 4,000m. Monsoon rain and snow fall on the southern face of the Himalayas, and the northern side has only a little precipitation amounting to less than 250mm per year in some places. Farming is done in irrigated fields only in the summer, with wheat, barley, buckwheat, potatoes etc. as main products. Stock farming is carried out extensively, and yaks, sheep and goats are

raised to obtain manure for fertilizer, dairy products and wool. They are also important as draft animals and items of trade.

Inhabitants of this region are Tibetan people including Sherpas classified as II-2 (Bhote Sherpa in Table 1). They chiefly believe in Tibetan Buddhism, but the Bon religion heavily loaded with indigenous faith exists in part of the region. A different life style from other Tibetan people is observed among the Sherpas who live on the southern face of the Himalayas (e.g. existence of unirrigated farms and side jobs related to mountaineering). Nepalization is also proceeding among these people. The word "Nepal" seems to remind many Japanese of the people of category II-2, but the population of Bhote Sherpas is quite small; the statistics on mother tongues tell that they, account for less than 1% of the total population (Table 1). They have only a peripheral presence both in political and social spheres.

(2) The Hills ("Pahar" in Nepali):

The Hill area comprising peaks below 4,000m and various basins and valleys in between extend from the foot of the Himalayas to the Mahabharat Range (max. 3,000m), with the width of scores of kilometers. Climates there range from subtemperate to subtropical. Most of the rain falls during the monsoon season between June and September. The annual precipitation is between 1,000mm and 2,000mm in majority of the areas, though there is even a record of 6,000mm at one place because of a large local difference of natural condition. Depending on rain-water, people of this area are mainly engaged in agriculture, growing wheat, barley, maize, millet, buckwheat etc. mainly on terraced fields on steep slopes. They can raise two crops a year. Wet rice cultivation is carried out also on valley bottom flatlands. The maximum altitude fit for rice cultivation almost coincides with the upper reach of the Hindu culture as well as with the lower marginal line for snowfall. Its altitude is about 1,800m \pm 400m, although there is some deviation due to regional differences and recent improvements in techniques and plant breeding.

Higher Hill Area People who speak Tibeto-Burman languages have concentrated, for the most part, between the midwestern and eastern portions of the Higher Hills Area. There are not many people who cultivate rice except the Rais and the Limbus in the east and the Newars in the Katmandu Valley. Many depend upon the cultivation of maize, millet etc. and stock farming for livelihood. The place occupied by trade had been important until recent years among some ethnic groups. The Thakalis in particular, though their population is small, achieved a remarkable economic success in transit trade between the south and the north. There have been many people who have left their regions to be mercenaries, as so-called Gurkha soldier, or to work in India among the ethnic groups in the Higher Hill Area such as the Gurungs, Magars, Tamangs, Rais and Limbus. They contribute to the reduction of the population pressure in the Hills, as well as to the acquisition of foreign currency. As for the religious aspect, Tibetan Buddhism has

penetrated among the Thakalis and a part of the Tamangs. Hinduization has been in progress among many groups in recent years though there are still some ethnic groups little influenced by major religions. The total population of the ethnic groups in this category (II-1) is less than half of that of the Parvate Hindus, but they are inhabitants who can be referred to as typical Nepalese along with the Parvate Hindus.

The Katmandu Valley While people in the Hills have been little concerned with urban culture, the Newars in the Katmandu Valley (1,300m) have fostered for over fifteen centuries a unique civilization prominent in architecture and handicrafts. Its economic foundations have been agriculture (centered on rice and wheat cultivation) and transit trade linking India and Tibet. Their culture reflects a strong influence from India. They have a long tradition of Buddhism and Hinduism, and their society comprises many castes.

Lower Hill Area Inhabiting the hills below the upper limit for rice cultivation are the Parvate Hindu (I-1) who have Nepali as their mother tongue. They occupy the majority of the Nepalese population and have dominated over other ethnic groups such as the Newars since the latter part of the 18th century in political and military sphere. It is to this group that not only the royal family of Nepal but also a major proportion of the high ranking officials belong to. Among them, there are also many people of various castes, who are engaged in agriculture (maize, wheat, rice, beans etc.) and stock raising (cattle, water buffalo goats, etc.). In terms of population, the Bahuns (a Hindu priestly caste) and the Chetris (a warrior caste) are predominant. They are engaged in agriculture, commerce and administration etc. besides their caste-specific occupation followed by a part of them. Among the Parvate Hindus, professional castes of the intermediate rank are largely lacking and the Kami (blacksmiths), Damai (tailors) and Sarki (cobblers) exist in the lower strata (many people from these lower castes are also engaged in agriculture). The Parvate Hindus have a history of having legally incorporated other ethnic groups into their caste system. For a caste society, they have relatively loose marriage restrictions as they have not only intermarried with various other ethnic groups but also incorporated the descendants into their own castes

(3) The Tarai and Inner Tarai:

The Tarai, the northernmost portion of the Gangetic plain, extends from east to west in southern Nepal with a width of 15-45km and an average altitude of approximately 200m. There are basins with altitudes of 300 - 600m called the Inner Tarai (Bhitri Madesh, Dun in Nepali) between the Mahabharat Range and the Churia Hills (less than 2,000m that stretch from east to west in the north of the Tarai. These are subtropical zones with high temperatures and humidity that used to be covered by forests and rampant with Malaria. In recent years, the regions came to be called the granary of Nepal due to the Malaria eradication and agricultural development.

Representing the indigenous population of the area are the Tharus who live in concentrated villages and carry on cultivation. There have been, however, many instances where Tharus were deprived of their farmland and forced to move to peripheral lands by people who immigrated from North India since these 200 - 300 years and recently by migrants from the Hills. The largest portion of the Tarai population is occupied by the people of North Indian affiliation, and the total number of the speakers of three dialects of category I-2 amounts to approximately 1/5 (3.04 million) of the total Nepalese population (1981). The majority of the Tarai inhabitants except 400,000 muslims are Hindus who are divided into a number of castes. While a larger portion of these people are farmers, there are also people who are engaged in commerce and industry. The life style in this area is purely Indian, and people have a conspicuous inclination toward Indian culture both in terms of daily life and identity. There are many people who get their spouses from India and people who send their children to India for schooling if they can afford it.

Ethnic migration Many of the Tibetans in the north and the Tarai residents are immigrants or descendants of the immigrants who were encouraged to settle in those areas by government of Nepal since the 19th century, although some of them may have been native to the area incorporated into Nepal after the expansion of the Nepalese borders. The Sherpas are said to have moved from Tibet to the foot of Mt. Everest in the 16th century.

The settlement process of the ethnic groups in the Hills with Tibeto-Burman languages is not clear, but it can be said that many groups have gradually migrated westward via Tibet or along the hill areas from the hill regions far to the east. Among these groups, the Newars had already rooted firmly in the Katmandu Valley by the 5th century. The Parvate Hindus are the descendants of the people called Khas who migrated eastward along the southern foot of the Himalayas. They established the Khas Malla Kingdom in western Nepal in the 11th century and have expanded to many regions after the rise of the Shah Dynasty in central Nepal. Mixed among these people (as well as among the Newars) are Hindus who fled from the hands of the muslims in Northern India since the 13th century.

Population by mother tongue Table 1 shows the change in the population by mother tongue from 1950 to 1981. (Census data on "Population by mother tongue" do not exactly represent ethnic group populations. A considerable number of people among such ethnic groups as the Magars and the Newars have forgotten their mother tongues and (declare to) use Nepali) What is conspicuous in the table is the large number of Nepali speakers and high rates of their increase (especially, in the period 1971-1981 there was an increase of 45% which is far greater than the growth rate of the total population). Also notable are large populations of Maithili and Bhojpuri speakers in the Tarai. On the

other hand, even the Tamangs, though having the largest number of the speakers of a language among the Tibeto-Burman family in Nepal, has a population of only about half a million. Furthermore, the number of languages exceeding 100,000 in population is limited to six among the Tibeto-Burman family. Many of these languages show decreases in their language population during the period 1971-1981. It is presumed that it does not mean decrease in ethnic population but an advance of Nepalization (influenced by education and policy).

2. Population Dynamics

(1) Total Population:

Statistics on population in Nepal have been collected, approximately every 10 years since 1911. The total populations in 1911, 1920, 1930 and 1941 are 5.639 million, 5.574 million, 5.533 million and 6.284 million, respectively, showing no marked fluctuation except for a gradual growth between 1931 and 1941. (It is, however, assumed that there were considerable undercounts in the statistics in those years.) The total population after the above years shows a trend of remarkable growth; it more than doubled in 40 years as shown in Table 1 with an increase growth rate (Mean rate of annual growth from 1961-1971 was 1.99%, while from 1971-1981 it was 2.66%) The population density in 1911 was 38.3 persons/km², to 78.5 persons per km² in 1971 and 102.1 in 1981. Nepal in recent years has more emigrants than immigrants. Therefore, population growth is attributed to natural increase. It can be understood that the increase in the growth rate has resulted from a decrease in the mortality rate (1952/1954:37, 1961:27, 1971:21, 1981:19) and high birth rates (1971:43, 1981:42).

Decrease in the mortality rate is mainly attributed to a certain improvement in hygiene and medical care. However, both mortality and birth rates are still higher compared to the international level.

(2) Sex ratio and population by age:

Table 2 shows the population by five year age groups. As a whole, males exceed females, but it is the reverse between 20 and 35 years of age due to the existence of a large number of male emigrants to foreign countries in search of employment. The table also tells of a high mortality in the lower ages.

(3) Population by region:

Administratively Nepal is divided into zones, districts, towns and villages. Larger than those are several development regions having north-south demarcation lines. Frequent changes are applied to these divisions, which makes the comparison between the censuses of different years very difficult. For different purposes, taking topography and altitude into account a division into three regions or the Mountains, Hills and Tarai is also used (This division almost corresponds to the

division into the Highlands, Hills and Tarai described above, and the Mountain region will hereinafter be referred to as the "Mountain, Highland"). Sometimes, Nepal is divided into Eastern, Central and Western sectors (or four sectors, separating the Katmandu Valley); these correspond to the major river basins of the Kosi in the east, Gandaki in the center and Karnali in the west. (The demarcation lines of these divisions are made to overlap with those of administrative blocks when statistical counts are concerned.)

Here, we briefly see some aspects of the east-west regional differences following H. B. Gurung (1981:11-12, 21). Proportions of the populations of the eastern, central and western regions and the Katmandu Valley in 1981, to the total population are 46%, 27%, 22% and 5% respectively (These figures are not much different from those in 1971), while population densities are 156 persons/km², 103 persons/km², 56 persons/km² and 1,357 persons/km², respectively. With the Katmandu Valley as an exception, distribution of population becomes sparse as we go to the west. This may be due to the fact that there is less precipitation to cause drier climate in the western areas.

Next, we consider north-south regional differences between 1971 and 1981 shown in Table 3. In each of the years, the largest population can be seen in the Hills and the Tarai comes next. Population density is higher in the Tarai and very low in the "Mountain, Highlands". On the other hand, the "Mountain, Highlands" has the least amount of cultivated land, which makes the region the most dense in terms of the population per cultivated area. Although the Hill region includes a considerable amount of cultivated land, its population density per cultivated area is higher than that in the Tarai even in 1981.

The mean annual growth rate of regional populations during the decade between 1971 and 1981 was 1.36% in the "Mountain, Highlands" and 1.67%, in the "Hills", which were lower than the growth rate of the total population, while the rate in the Tarai was 4.20%; the Tarai population increased by 1.5 times during the decade. The ratio of the Tarai population to the total population was 37.6% in 1971 but increased to 43.6% by 1981. The ratio of the Tarai population to the total population was 36.4% in 1961, and had been about 31-32% before 1961, though the statistics obtained prior to 1961 can only be used as a rough reference. It can be tentatively concluded that the ratio of population in the Tarai started to grow in the 1950s and the tendency strengthened in the 1970s.

The population in the "Mountain, Highlands" has also increased on the whole, but the absolute population decreased in the decade before 1981 in some districts such as Humla, Mustang, Manang and Rasuwa.

As described above, considerable north-south differences can be observed in the recent population dynamics in Nepal. The mobility of

population should be taken into account as one of their reasons aside from natural fluctuations.

(4) Population Mobility:

Population mobility can be inferred from the census figures recording birth places of inhabitants. According to the figures of 1981, the number of people born in the "Mountain, Highlands" but inhabiting other areas is 297 thousand (55% live in the Tarai and 45% in the Hills). Those born in the Hills but inhabiting other regions is 595 thousand (94% live in the Tarai), and population born in the Tarai but inhabiting other areas is 38 thousand (94% live in the Hills). Seen from another angle, inhabitants of the Tarai born in other areas account for 724 thousand, while inhabitants of the Hills and "Mountain, Highlands" born elsewhere amount to 170 and 36 thousand, respectively. These figures show that more people in the higher altitudes have been moving down to lower regions; e.g., from the "Mountain, Highlands" to the Hills and the Tarai and also from the Hills to the Tarai. These southward movements (especially to the Tarai) are the most notable of the population movements in Nepal, though there have also been lateral movements within the Tarai and in the Hills centered around the Katmandu Valley. The figure for 1961 and 1971 also show the existence of similar movements in those years, but their scale was smaller than that of 1981 (inhabitants of the Tarai who were born in other regions numbered 138 and 418 thousand, respectively). These figures indicate that migration to the south have been continuing to this day.

Increase of migrants from the Nepalese Hill areas to the Tarai can mainly be attributed to the success of malaria eradication initiated in the 1950s. This has enabled the inhabitation of the Tarai by people of the Hill areas where greater population pressure and a reducing population-bearing capacity prevailed owing to forest and soil destruction. The government has also encouraged migration to the Tarai by offering land at cheap prices. It was mainly higher castes of the Parvate Hindus or the Newars who took advantage of it while many people of the hill ethnic groups and lower castes had to become tenants or agricultural laborers in the Tarai. Encouragement of migration to the Tarai has been ongoing since the unification of Nepal by the Shah Dynasty in the latter part of the 18th century. Prior to the eradication of malaria those people who settled there were mainly people of lower castes from the Indian side such as Bihar. Immigration from India is still continuing though it is said to be hard to grasp the actual number of immigrants. As far as the census records go, the numbers of people born in India but residing in Nepal amounted to approximately 320 thousand in both 1961 and 1971 and 220 thousand in 1981, about 95 percent of whom live in the Tarai. There have been more immigrants in the eastern and central Tarai, less in the west and the least in the far west. Among the immigrants from India, females outnumbered males by nearly hundred percent in 1971 and more than that in 1981 (no data for 1961). Many among the female immigrants came to

Nepal for marriage. Among the foreign born residents in Nepal, those who were born in India amounted to 96% (1961, 1971) and 95% (1981). Except for those marrying in, they were mostly immigrants looking for jobs in agriculture, commerce, industry, etc.

In the discussion of the population mobility, emigration cannot be overlooked. Sending of so called Gurkha soldiers as mercenaries began in 1816 and, has been continuing to a certain extent. Their remittance home, at one time, ranked first among the sources of foreign currency. The mercenaries have mainly consisted of young men belonging to such ethnic groups of the Hills as Gurungs, Magars, etc. For other work also, people in the hills went out to India in the 19th century already to be employed in tea gardens in Assam and Darjeeling and to work in agriculture in Sikkim and Bhutan. From the latter half of the 19th century, some engaged in unskilled work in commercial and industrial zones of Uttar Pradesh and Bihar. The numbers of people born in Nepal and living in India in 1951, 1961 and 1971 were 279, 493 and 487 thousand, respectively. The number in 1971 shows a slight decrease, corresponding to the increase of migration from the Hills to the Tarai in the 1960s.

As for the urban areas, towns with more than 10,000 people that numbered only four in the 1950s increased to 19 in 1981. There are, however, only two towns having the populations between 50,000 and 100,000; they are Lalitpur (79,875) in the Katmandu Valley and Biratnagar (93,544) in the Tarai. Katmandu is the only city whose population exceeds 100,000 (121,019 in 1961, 150,402 in 1971 and 235,211 in 1981). There are more towns in the Tarai and Inner Tarai that have recently expanded on the basis of commerce and small industries or newly developed as centers of administration, yet the extent to which they attract laborers is limited both in terms of the number of towns and their scale.

Though the urbanization in recent years can be said to be substantial if compared to the period prior to the 1950s, it still remains at a partial and small-scale level. Consequently, the population movement between the rural areas still account for the major portion of the population mobility in Nepal.

Table 1 Change of in population by mother tongue

Mother tongue	1952/54	1961	1971	1981
Total population	8,256,625	9,412,996	11,555,983	15,022,839
Nepali	4,013,567	4,796,528	6,060,758	8,767,361
Maithili	1,024,780	1,130,402	1,327,242	1,668,309
Bhojpuri	477,281	577,357	806,480	1,142,805
Tamang	494,745	518,812	555,056	522,416
Awadhi	328,408	447,090	316,950	234,343
Tharu	359,594	406,907	495,881	545,685
Newar	383,184	377,727	454,979	448,746
Magar	273,780	254,675	288,383	212,681
Rai dialects	236,049	236,749	232,264	221,353
Gurung	162,192	157,778	171,609	174,464
Limbu	145,511	138,705	170,787	129,234
Bhote Sherpa	70,132	84,229	79,218	73,589
Rajbhansi	35,543	55,803	55,124	59,383
Satar	16,751	18,840	20,660	22,403
Danuwar	9,138	11,624	9,959	13,522
Sunwar	17,299	13,362	20,380	10,650
Chepeng	14,261	9,247	----	----
Thami	10,240	9,046	----	----
Thakali	3,307	4,234	----	5,289
Jirel	2,721	2,757	----	----
Lepcha	----	1,272	----	----
Others	178,142	284,662	490,253	770,606

(For making this table, a table by Machiko Tamura (1986, p.114) was modified and corrected in accordance with the Central Bureau of Statistics 1975, 1984 and 1987 especially.)

Table 2 Age and Sex Specific Populations

Age	Total	Male	Female
All age	15,022,839	7,695,336	7,327,503
0 - 4	2,314,505	1,190,581	1,123,924
5 - 9	2,190,446	1,117,141	1,073,305
10 - 14	1,707,021	919,290	787,731
15 - 19	1,328,401	695,746	632,655
20 - 24	1,335,698	636,929	698,769
25 - 29	1,161,670	570,192	591,478
30 - 34	975,401	468,270	507,131
35 - 39	893,272	461,873	431,399
40 - 44	752,788	376,720	376,068
45 - 49	618,805	329,439	289,366
50 - 54	542,022	290,103	251,919
55 - 59	345,749	188,064	157,685
60 - 64	367,495	191,656	175,839
65 - 69	188,583	101,189	87,394
70 - 74	156,786	83,143	73,643
75 - 79	66,393	35,096	31,297
80 - 84	50,231	25,707	24,524
85+	27,573	14,197	13,376

Source: Central Bureau of Statistics 1984, p.32

Table 3 North-South Regional Differences (1971-1981)

	Area	1971				
		Population (persons)	Ratio to the total popula- tion (%)	Popula- tion density (person/ km ²)	Cultiv- ated area (10km ²)	Popula- tion density per cultiv- ated area (person/ km ²)
Mountain, Highlands	51,817	1,138,610	9.9	22	97	1,174
Hills	61,345	6,071,407	52.5	99	606	1,002
Tarai	34,019	4,345,966	37.6	128	1,293	336
National total	147,181	11,555,983	100.0	79	1,996	579

	Population (persons)	1981				Mean rate of annual popula- tion growth ('71- '81, %)
		Ratio to the total popula- tion (%)	Popula- tion density (person/ km ²)	Cultiv- ated area (10km ²)	Popula- tion density per cultiv- ated area (person/ km ²)	
Mountain, Highlands	1,302,896	8.7	25	157	830	1.36
Hills	7,163,115	47.7	117	1,128	635	1.6
Tarai	6,556,828	43.6	193	1,379	475	4.20
National total	15,022,839	100.0	102	2,664	564	2.66

Sources: Banister & Thapa 1981
Central Bureau of Statistics 1975, 1984b, 1987.
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Source

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CHAPTER 2

PROMOTION OF LOCAL INDUSTRY AND PRESERVATION OF NATURE

Koichi Niitsu
Professor
International Christian University

1. Status of Local Industries in Nepal

Since there is no clear definition of local industry, I would like to tentatively define it as "a manufacturing industry developed upon local capital, resources, technology and labor force." When I apply this definition to Nepal's manufacturing industry, I think those industries categorized as cottage industries and small-sized enterprises in the statistics of Nepal can be included. This is an industrial sector composed mainly of traditional industries and establishments developed on the basis of those industries. It is true, of course, that even cottage industries depend on electric power and gas sources and more and more small-sized enterprises have introduced new machinery. It is equally true, however, that their production processes and systems are founded on traditional forms. In this respect, they can be classified as local industry. Most of those establishments which are referred to as big enterprises in Nepal would be considered as small-to-medium-sized enterprises by Japanese standards. Although some traditional factors remain in those enterprises, I think they can be excluded from the category of local industries. 1)

What position do the cottage industries and small-sized enterprises hold in the Nepalese economy? Figures in statistical data obtained in Nepal vary from ministry to ministry, and there are significant differences in the data I have picked up. Referring to these differing statistics, I would like to present a general overview of their status.

Table 1 shows the position of cottage industries in the Nepalese gross domestic product (nominal). Since Nepal is an agricultural country, agricultural products still account for 60% of the gross national product.

Manufacturing accounts for only 4.4% (1983/84) of the total GNP and cottage industries and small-sized enterprises, as part of the manufacturing industry, account for only 1.3%. In this respect, local industry holds a very low position in Nepal's gross national product. In the manufacturing industry, which is still in its infancy, cottage industry accounts for 30% of the total output. In terms of the number of enterprises and employees, it maintains a relatively important position (See Table 2).

Regarding the number of enterprises, the only data available are those compiled in 1972/73 and 1977/78, therefore the current conditions remain uncertain. According to the data of 1977/78, cottage industries and small-sized enterprises accounted for 99.5% of the manufacturing industry as a whole, and 95.6% of the employees in the manufacturing industry are engaged in a cottage industry or small-sized enterprise activity. Taking into account changes in the output ratio of cottage industries in the manufacturing industry, the trend remains almost unchanged. It can be said that labor productivity in cottage industries

and small-sized enterprises is remarkably low, but its employment effect is extremely high.

As Nepal continues to suffer from overpopulation, increases in unemployment and potential unemployment here emerged as one of the biggest problems. In the 1950's and 1960's, the surplus population of farming villages in mountain and hill areas was absorbed by Tarai. The 1970's Tarai, however, reached its capacity. Under such circumstances, concentration of population in big cities, especially Katmandu, has become more and more conspicuous. In this connection, the absorption of laborers by industrial sectors has become a very important task to assure social stability. Nepal, however, has a relatively short history of industrialization, and various features of its industrialization such as market size, reinforcement of distribution networks and domestic purchasing power are very limited. Consequently, only specific industries have introduced capital-intensive production methods. In view of this, the promotion of cottage industries which are labor-intensive and have high employment intake is an extremely important challenge for the nation. Accordingly, the Government has concentrated its energy on fostering cottage industries since the 6th plan (1980-85) was implemented. Table 3 clearly depicts the Government policy.

According to Table 3, before the 6th plan (1980-85), the ratio of the Government's investment in cottage industries has remained around the level of 0.6-0.7%, with the exception of the period of the 2nd plan (1962-65) when it recorded 1.5%. Then in the 6th plan, 2.3% of the total Government investment to all industries was scheduled to be allotted to cottage industries. Taking into consideration that cottage industries account for 1.3% of the gross domestic product, it is evident that the Government places considerable emphasis on them.

There is another reason why cottage industries should be valued highly, i.e., they are very important sources of foreign revenue (See Table 4).

The percentage that cottage industries occupy in total exports changed from 38.9% in 1980/81 to 24.9% in 1981-82 and 56.1% in 1982/83. It is clear that cottage industries are indispensable as sources of foreign currency. Among them, carpet exports hold the biggest share, 85% of total exports of cottage industry products in 1982/83. Table 4 also shows that the share of handicrafts, which were very important export items until 1980/81, has sharply fallen in recent years.

Cottage industries, then, are extremely important in Nepal for all these reasons. The actual promotion project of the Government, however, is applied only to a very limited range of establishments. Setting up a Department of Cottage Industry in the Ministry of Industry, the Nepalese Government has implemented various programs including the development and dissemination of appropriate technology, as well as the training of

skilled workers and subsidies. At the same time, a registration system covering owners of cottage industries and small-sized enterprises has been established in order to carry out the above programs. The number of registered establishments, however, was only 1,112 in 1984/85. Considering that there were already 751,000 establishments when the survey was conducted in 1977/78, it can be said that the number of establishments covered by the above programs is very limited (see Table 5).

Table 6 shows the types of products produced by cottage industries and small-sized enterprises.

Since the above data was compiled in 1972/73, we cannot consider it an accurate reflection of the current situation. As already indicated in our discussion of export items, such items as carpets and floor mats recorded the highest outputs, amounting to 51.5% of the total output. It is thought that processed agricultural products (mainly non-staple food goods and oil, Biri), which hold the second highest percentage, are mostly for domestic consumption. Bamboo products, clothing and textiles, however, are items for domestic consumption. They also are important export items, though their share is low.

Iron tools and farm machinery are mostly for domestic use. Nowadays, these goods are being imported from India and products manufactured in a large farming machinery plant, established in Birganj in 1968 with the financial support of the Soviet Union, are on the market, strongly affecting traditional blacksmiths. In Nepal, blacksmiths, Nakarmi, hold a low position in the caste system of both Hinduism and Buddhism 2), and there is a tradition of despising any job that deals with iron. Consequently, as the Nepalese economy is industrialized, blacksmiths now have many new job opportunities. In short, they have launched into new fields such as repair shops for automobiles, motorbikes and bicycles, electric appliance repair and production of steel-framed construction materials. Furthermore, large-scale ironworks (producing suspension bridges, drums, pumps, construction materials, farming machinery and other items) are dependent on blacksmith apprentices for their skilled and non-skilled work 3). Some of those who were transferred from blacksmithing to mechanics in a modern large-scale factory have acquired new technology and established their own small-to-medium-sized factories and are fairly successful. The existence of large-scale enterprises has deprived traditional craftsmen of job opportunities, but at the same time it has provided opportunities to foster new mechanics and small enterprises.

In Nepal, those who are engaged in jobs using wood in the Nepal Basin are called "Shikarmi" 4). They traditionally belong to the middle stratum or higher in the caste system, and some even belong to the priest caste. The social status of those who are engaged in work involving wood as a material is higher than that of those who are

engaged in businesses dealing with iron. In traditional society, before the emergence of a modern industrialization based upon metal materials especially iron, wood was an indispensable material for producing daily commodities, production tools, and rituals instruments. Therefore, Shikarmi played an important role in various fields. In fact, those who had the highest level of mechanical skill in Nepal's traditional society were Shikarmi producing looms, oil press mills and stands for potter wheels. Their role as craftsmen has continuously been on the decline since the "age of iron" started. In the midst of industrialization, they have shown no interest in the iron products being introduced one after another and have even detested touching them.

As mentioned above, the cottage industry in Nepal has drastically changed its structure in recent years under the influence of industrialization. The traditional value system of the Nepalese society has exerted various influences on traditional occupations and those who have been engaged in them. The introduction of modern technology works favorably on some occupational castes in economical and technological terms, but unfavorably on others. Noting economic merits and promotion of economic status, people have come to gradually launch into occupational fields which they once shunned 5). The shift from a "wooden culture" to "iron culture" has caused a change in social structure. Consequently, measures to foster cottage industries are required in line with changing trends in social structure.

2. Preservation of Nature

When we observe Nepal from the viewpoint of the preservation of nature, the most important problem right now is the deformation of its ecosystem due to deforestation and the reduction of grassland in the hilly areas. As the population sharply increases, land is overcultivated; demand for firewood, charcoal and timber for daily use expands and the number of livestock increases. As a result, forests and grassland decrease in scale, become sterile and finally are destroyed. Such circumstances in hill areas bring about an outflow of organic matter from the soil and a decline in land productivity which leads to an increase in damages from floods, the breaking of slopes and inundation of villages caused by landslides.

Consequently, fields directly affected by natural environment problems are agriculture and livestock breeding. Most local industries depend on agriculture and livestock breeding for their production resources as well as on firewood and charcoal for their energy resources. Of the local products indicated in Table 6, carpets and most clothing and textiles depend on wool and, in order to expand production, it is necessary to put sheep out to pasture. Since sheep are also important livestock for the Nepalese as a source of milk and meat, it is necessary to increase their numbers as the population grows and the

cottage industry develops. Overgrazing, however, makes grassland dry, and the topsoil, being rich in organic matter, is eroded by the wind, which results in desertification. Furthermore, the trend of feeding livestock fodder of branches and leaves has become marked due to the decline in pastures. As a result, the number of trees bared of leaves and branches has increased everywhere in the hilly areas.

As for wooden products, iron tools, agricultural machinery, ceramic ware, metal containers and gold and silver works, it is needless to say that wooden products greatly use up wood supplies. It requires a great deal of firewood as fuel to produce ceramic ware. In the process of manufacturing iron tools and agricultural machinery, blacksmiths use cinders to forge iron. The same applies to metal containers and gold and silver items. In sum, the increase in demand for wood, firewood, and charcoal is directly related to the destruction of forests.

The Nepalese Government, treating deforestation as a national issue, has formulated a forestry administration policy to deal with the problem. As a result, the prices of timber and firewood have started rising sharply, and at the same time illegal deforestation has become rampant.

As mentioned above, local industries in Nepal depend upon agriculture and livestock breeding for their resources. Consequently, they are facing a situation where they have no alternative but to pay attention to the relationship between economic development and the preservation of the natural environment. Therefore, the growth of Nepalese local industries requires the improvement of forestry administration policies placing emphasis on an afforestation project, development of feed for livestock and alternative energy supplies and the reinforcement of a supply system.

Table 1 Gross Domestic Product (Nominal)
(fiscal year July 16 to July 15)

Unit: one million rupees
Figures in () means percentage

					1)	2)
	1974/75	1979/80	1980/81	1981/82	1982/83	1983/84
Agriculture	11,435 (68.9)	13,520 (59.2)	15,510 (58.5)	17,715 (58.5)	19,082 (57.6)	22,087 (58.9)
Mining	22	42	58	66	85	96
Manufacturing	664 (4.0)	936 (4.1)	1,049 (4.0)	1,243 (4.1)	1,460 (4.4)	1,650 (4.4)
Non-cottage industry	440 (2.7)	618 (2.7)	712 (2.7)	851 (2.8)	1,021 (3.1)	1,154 (3.1)
Cottage industry	224 (1.3)	318 (1.4)	337 (1.3)	392 (1.3)	439 (1.3)	496 (1.3)
Electric power, gas, water supply	34	60	67	82	127	140
Construction	583	1,570	1,974	2,342	2,377	2,502
Commerce, restaurant	540	889	953	1,068	1,199	1,355
Transportation	690	1,541	1,889	1,992	2,129	2,306
Finance	1,095	1,833	2,077	2,366	2,594	2,832
Public welfare	873	1,495	1,889	2,167	2,591	2,801
Total	16,600	22,822	26,515	30,284	33,104	37,491

Note 1) Affirmative alternation

Source: Ministry of Finance, Economic Survey, 1985/86, p.1

Table 2 Changes in the Position of Domestic Industries and Small-sized Enterprises

	1972/73	1977/78			
	Cottage industries/ small-sized enterprises	Cottage/ small-sized enterprises	Large enterprises- medium-sized enterprises	Total	Percentage of cottage and small-sized businesses
Number of organizations/ firms (1,000)	377	751	3	754	99.5
Number of employees (1,000)	1,040	1,215	56	1,271	95.6
Value added (1,000 rupees)	113	219	480	699	31.3
Invested capital (1,000 rupees)	143	341	485	826	41.3
					Change from 1972/73 to 1977/78 (%)
					99.3
					16.8
					78.6
					138.4

Source: The Sixth Plan, pp. 511-512

Table 3 Position of Cottage Industries in the National Economic Development Plan

(Unit: one million rupees)					
Year	Total budget	Manufacturing		Cottage industry	
		Allotted budget	%	Allotted budget	%
First (1956-61)	330	19	5.8	-	-
Second (1962-65)	670	90	13.4	10	1.5
Third (1965-70)	2500	397	15.9	15	0.6
Fourth (1970-75)	3556	359	10.1	23	0.7
Fifth (1975-80)	9191	483.5	5.3	58.3	0.6
Sixth (1980-85)	21750	1050	4.8	500	2.3
Seventh (1985-90)	54110	12160	22.5	-	-

Table 4 Exports of Cottage Industries' Products

Fiscal year Production items	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	(Unit: 1,000 rupees)	
											Change from 1973/74 to 1982/83	1982/83 (%)
1. Woolen textiles	256 (2)	7,605 (20)	2,772 (9)	3,924 (7)	5,035 (7)	5,461 (5)	6,707 (6)	10,245 (4)	5,144 (4)	4,786 (3)	1,770	
2. Carpets	3,752 (31)	7,853 (21)	9,276 (32)	2,706 (48)	23,944 (32)	45,819 (43)	55,367 (48)	65,590 (28)	83,929 (73)	137,756 (85)	3,571	
3. Ready-made clothes	1,030 (9)	1,325 (4)	1,973 (7)	4,041 (7)	5,672 (8)	8,486 (8)	7,840 (7)	12,968 (5)	13,807 (12)	10,035 (6)	874	
4. Handicrafts	6,968 (57)	17,508 (47)	12,743 (44)	20,559 (36)	34,277 (47)	41,547 (39)	42,972 (37)	100,153 (43)	12,245 (11)	9,399 (6)	35	
5. Paper products	121 (1)	2,899 (8)	2,266 (8)	1,203 (2)	4,496 (6)	5,412 (5)	2,507 (2)	46,228 (20)	371 (20)	714 (20)	490	
Total	12,127 (100)	37,190 (100)	29,030 (100)	57,633 (100)	73,424 (100)	106,725 (100)	115,393 (100)	235,184 (100)	115,496 (100)	162,690 (100)	1,242	
Total exports	172,280 (7.0)	166,792 (21.7)	266,303 (10.9)	363,296 (15.9)	601,329 (12.2)	849,515 (12.6)	780,605 (14.8)	604,659 (38.9)	462,307 (24.9)	289,692 (56.1)		

Source: Nepal Overseas Trade Statistics, TPC, 1982/83 Appendix 1, July, 1984

Note: Figures inside parentheses are percentage

Table 5 Registered Number of Cottage Industries and Small-sized Enterprises

	1974/75	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Number of enterprises	70	401	362	480	1,561	1,355	1,112
Amount of investment	9.6	68.6	57.8	113.8	348.9	255.6	369.5

Note 1) Only those which are registered in the Department of Cottage Industry Program

Note 2) Unit: One million rupees

Source: Department of Cottage Industry

Table 6 Estimated Output of Cottage Industries and Small-sized Enterprises

Classification of products	(Unit: 1,000 rupees)	
	Output	%
Floor mats, rope, carpets	158,376	51.5
Bamboo products	24,809	8.1
Clothing, textiles	21,521	7.0
Wooden products	5,085	1.7
Iron tools, farm machinery	9,658	3.1
Ceramic ware	5,049	1.6
Metal containers	2,116	0.7
Gold and silver work	5,602	1.8
Footwear	9,053	2.9
Processed agricultural products	51,157	16.6
Other	15,451	5.0
Total	307,877	100.0

Source: Cottage Industries/Small-sized Enterprises Sample Survey 1972/73
(Central Statistics Bureau)

Notes

- 1) Industries are classified according to the following rules in Nepal.
 - a. Cottage industry --- establishments with investment in production machinery and tools of 200,000 rupees or less, and fixed assets of less than 500,000 rupees (800,000 rupees in urban areas)
 - b. Small-sized enterprise --- investment in production machinery and tools of 200,000 rupees or more, fixed assets of less than 2,000,000 rupees
 - c. Medium-sized enterprise --- fixed assets of 2,000,000 rupees or more but less than 10,000,000 rupee
 - d. Largesized enterprise --- fixed assets of 10,000,000 rupees or more (Source: Industrial Policy 1981, Ministry of Commerce, p. 11)
- 2) "Nakarmi" means a blacksmith in the Newar tribe residing in the Katmandu Basin. "Na" means iron and "Karmi" means a laborer. In Hindu villages, they are called "Kami." They are regarded as "untouchables" in the caste system.
- 3) Many of workers and mechanics in Balaju Yantra Shara, a large enterprise established with financial aid from Switzerland in 1960, were from Nakarmi. (Koichi Niitsu and others, The Capital Goods Sector in Nepal: Present Condition and Prospects, 1983, International Labour Office, Geneva)
- 4) "Nakarmi" is clearly positioned in the caste system and most of those who transferred from blacksmith have the family name of "Nakarmi." On the other hand, "Shikarmi" is not a family name having a certain position in the caste system but a generalized name of an occupation. I did not meet anyone who has the name of "Shikarmi" during my survey in Nepal (1980-81).
- 5) I met two people from Brahmin during my survey on ironmasters in the Katmandu Basin. One of them joined the business only as an executive, and field work is done by workers from Nakarmi. The other had experience working for Balaju Yantra Shara as a mechanic and then became independent as an owner of a small enterprise. He was engaged in field work. He told me that at first his relatives were strongly opposed to his working at the scene of labor so he encountered difficulties in getting married. He also told me that in recent years his relatives have come to understand the economic benefits and some are actually working at his factory.

Sources

- 1) Economic Survey 1985-86, HMG Ministry of Finance, 1986
- 2) Rajeshwar Acharya, Cottage Industry in Nepal, Center for Economic Development and Administration, Tribhuvan University, 1984
- 3) Nepal Atlas of Economic Development, HMG National Council for Science and Technology, 1980
- 4) Koichi Niitsu and Others, The Capital Goods Sector in Nepal: Present Position and Prospects, International Labour Office, Geneva, 1983
- 5) Statistical Pocket Book: Nepal, Central Bureau of Statistics, National Planning Commission, 1982

CHAPTER 3

PROMOTION OF DEVELOPMENT IN HARMONY WITH ENVIRONMENTAL CONSERVATION

1

Present Status of Environmental Conservation in Nepal and Future Trends

Makoto Numata
Professor Emeritus
The University of Chiba

2

National Development Plan and Foreign Aid

Seigo Tsujii
Director
The Japan Nepal Society

1. Present Status of Environmental Conservation in Nepal and Future Trends

Although I have touched on this subject several times, I would like to give a brief outline including some new situations that have arisen. Regarding the natural habitat of Nepal, its image 25 years ago, when I first visited with the scientific research and mountaineering team of Chiba University, was that of unexplored land of the Himalayas and I felt the same way. Publications written by members of expedition teams from Tokyo and Kyoto Universities and others were issued, and some of them indicated the beauty of rhododendrons and primroses of the land.

Seen from the eye of an ecologist like myself, however, those beautiful flowers were the result of overgrazing. Also in Japan, places noted for rhododendrons and wild azaleas were generally created as a result of cattle and horse grazing and have been maintained that way. Such phenomena take place because plants in the azalea and primrose family (Ericaceae and Primulaceae) are generally poisonous and unpalatable for livestock. That is, people are simply impressed by the beauty of flowers and without so much as considering the fact that it resulted from kind of destruction of nature called overgrazing.

The population of Nepal at the time (1963) was eight million, and has now doubled. This means that the doubling time is 25 years. To support this increased population, forests were destroyed to obtain firewood and expand farmland. Collecting firewood is women's work. But now that forests no longer exist in the neighborhood, they have to go so far to get firewood that they leave in the morning and don't come back until evening. Pasture used to stretch endlessly, but part of it has now been replaced by cultivated land. We used to pitch our tents in those forests and pastures, but these days we sometimes get into a situation where it is difficult to find a campsite because there is nothing but farmland.

Thanks to the energy revolution, Japan stopped using firewood and got rid of coppices. It is also importing food to compensate for the imbalance. However, Nepal's nature was considerably destroyed because the country had to meet its needs on its own due to economic reasons.

Fifteen percent of Nepal's forests were destroyed in the last five years. Every year, 20 to 50 tons of top soil are lost per hectare due to cultivation of slopes with angles over 30°. Two-thirds of the population live in mountainous regions with severe climate, but is said that only one-third of the food necessary can be produced in such regions. The amount of top soil eroded from mountain slopes is said to be 20 times larger than that of rice production. In addition, estimated annual erosion of 25 tons takes place in upland farming regions due to the rain during the monsoon season while 40 tons erode in overgrazed pastures as they have bare grounds.

Nepal has an equivalent of 6% of the country as areas for national parks and wildlife reserves, but trees are cut even in such areas while some from being unbarked. Floods and landslides occur every year, and riverbeds are said to be rising at a rate of 15 to 30 cm a year.

Through a number of visits to Nepal, I attempted to note changes in nature caused by human activities particularly in terms of vegetation. For this purpose, upland farmlands and paddy fields at altitudes below rice cultivation limit (2,000 - 2,500 m) and pasture management at altitudes above this level became the subjects of research.

This May, I attended a meeting of experts on pasture management which was held in Kathmandu. At this meeting, I demonstrated the method I used for diagnosing conditions of pastures in a pasture near Kakani. Up to now, pastures have been made by burning forests, used until they became degraded (a primrose meadow is an example) and abandoned. However, pastures can be maintained in good condition for long time if proper measures are taken after diagnosing the land with my method. As in physical illness, it is necessary to provide treatment based on proper diagnosis. That is why an accurate evaluation of pastures is necessary for their appropriate management.

One amazing thing about Nepal is that people burn down rhododendron and juniper shrubs at altitudes of 4,000 m to make pastures. On the other hand, forests are sometimes left as they are in lowland. However, forest floor becomes barren due to forest grazing and leads to soil erosion while leaves are taken away from trees when there is not enough herbage. Forests are subject to utilization according to needs in Nepal, but the idea of preserving them from the standpoint of conservation of nature has not reached the general public.

Although wood utilization and importance of the landscape in national parks are well understood, understanding of what is referred to in Japan as functions of protection forest, e.g. for water-source conservation, erosion control and prevention of land collapse, as well as the so-called public welfare function in a broad sense and functions of the entire ecological system including the habitat of wild animals, are generally insufficient. Therefore, some learned men in Nepal have started advocating environmental education and are teaching people how to see and deal with the environment around them.

Nevertheless, the problem lies in the fact that no small amount of nature's destruction is caused by not only local residents but also tourists and mountaineering teams. At the 14th International Botanical Congress held in July of this year in West Berlin, problems regarding vegetation in the Himalayas and its conservation was discussed by the Tibet side, and Nepal and India sides. In all cases, discussion centered on the influence of human activities such as burning and cutting and grazing of vegetation by local people as well as use of fuel

and littering by tourists.

Under such circumstances, a movement aimed at sustainable development and conservation of the mountain region has been initiated, and two regional seminars were held in Kathmandu in relation to the "Impact of Human Activities on Mountain and Tundra Ecosystems," which is the sixth project in UNESCO's MAB (Man and the Biosphere) Program. That seminar's second meeting in 1975 was attended by UNESCO representatives from Afghanistan, Pakistan, Bangladesh, Bhutan, Burma, China, India, as well as from Japan, W. Germany and Switzerland and a resolution was adopted that a center for research, education and training regarding the above-mentioned projects be established.

The resolution bore fruit in 1982 when ICIMOD was founded in Kathmandu, and an agreement was signed between the Government of Nepal and UNESCO. Anthropologist Collin Rosser is the present director, and research and training are conducted under themes such as water shed management, integrated rural energy development, off farm employment, technological development in unstable mountain climate, etc. Dr. Ratna S. Rana who made significant contributions toward the opening of this center is still offering service as chairman of executive committee.

In 1980, IUCN (International Union for Conservation of Nature and Natural Resources), WWF (World Wildlife Fund) and UNEP (United Nations Environmental Program) jointly put together WCS (World Conservation Strategy) and sent it to government officials in various countries. The strategy stressed the importance of integration and harmony in conservation and development and appropriate technology for sustainable development. This spirit was carried forward in the idea of World Environment Special Committee which announced the Tokyo Declaration in February of this year after holding the final meeting in Japan. Many of the participants may recall that the term "sustainable development" was often brought up during that meeting.

Establishment of NCS (National Conservation Strategy) is desired to balance WCS. The Government of Nepal was quick in dealing with this matter and announced the historical development of NCS in Nepal in the special issue of IUCN (WCS in Action, Sept. 1985), where priority was set on a reforestation project (production of fuel and fodder trees, and prevention of soil erosion). Also mentioned in the strategy are electrification of local areas by small scale electric power generation, promotion of family planning, additional construction of irrigation facilities for increased agricultural production in the Terai region, reform of land ownership system for promotion of agriculture, expansion of health facilities, improvement of education for children, and vocational training for adults.

Prior to this, His Highness Gyanendra, the brother of King Mahendra, announced an official statement in response to WCS and the

6th Development Project (1980-1985), urging harmony between population growth and conservation of nature and efficient utilization of land and resources. The NCS Executive Office was established to promote NCS for Nepal in response to His Highness Gyanendra's opinion.

As a primate organization related to these matters, the King Mahendra (Trust for Nature Conservation)(KMT) was established in 1984 with King Birendra as the president and King's brother Gyanendra as chairman. In addition to choosing Mr. Saburo Okita as an international member, a domestic committee was established in Japan with the Japan-Nepal Society serving as its office. A revised edition of KMT's project has recently been published in which 19 themes are taken up.

Policies in the project include activities not taken up by the Government, conformity with the purpose of conservation for development, approved and well-planned by experts; contributing to the development of local regions and talent; not depending solely on external financial assistance; maximum participation of the local people and conformity with the spirit of NCS. As it is difficult to implement the project on its own capital in reality, it is conducted jointly by WWF, California Environmental Institute, Smithsonian Institution, Mainichi Broadcasting, British Broadcasting Corporation, Edinburgh University and Frankfurt Society of Zoology. It is partially participated in by the Government of Nepal and the Royal Academy.

Recently, the Annapurna Project was launched with assistance from WWF, and the Government has announced that it will be designated as Biosphere Reserve of UNESCO (See WWF News, No. 43, 1986 for details.).

All considered, the most desirable approach for environmental conservation and protection of nature is dividing the work among three bodies, i.e. Government (Department of National Parks and Wildlife Conservation), ICIMOD and KMT. In other words, it is putting forward in a nice way the cooperation between government, international and private organizations. In the Annapurna Project, the Government announced the establishment of nature reserves, WWF donated 2.2 million yen for this purpose and KMT took the initiative in planning. There is also a project called the "International Workshop" in which ICIMOD is effectively cooperating.

The future course is expected to move toward a favorable direction of cooperation of several other organizations and experts can be called upon in addition to the work done by the three groups.

2. National Development Plan and Foreign Aid

Development Plan extends range from the First Plan (1956/57-1960/61) to present the Seventh Plan (1985/86-1990/91). The main

objective of the Seventh Plan is to establish 4.5% GDP growth rate, absorb unemployed school graduates and develop sectors such as agriculture, forestry and industry. With a total budget of 54.1 billion rupees (3 billion dollars), the Plan continues to be dependent on foreign aid (grants and credit). Of 32.15 billion rupees in Public sector, (including Panchayat sector) 62.2% (20 billion rupees) plans to allocate to foreign aid.

The Government has included effective utilization of foreign aid as one of the top priority measures in the Plan. In view of the fact that past capital investments were not effective as planned, emphasis is now being placed on regional development in which the Ministry of Panchayat has responsibility for overseeing completion of development plans. A goal of lowering the percentage held by agriculture from the present 52.4% (1985/86) to 49.9% (1990/91) has been proposed and the driving force for economy is placed on a transition to industry and energy.

The targeted average growth rates in the Plan are 3.5% for agriculture, 5.7% for others and 4.5% for GDP. A total of 54.11 billion rupees is allocated by sector to the public sector (30.15 billion rupees - 55.7%), private sector (21.96 billion rupees - 40.6%) and Panchayat sector (2 billion rupees - 3.7%). In the public sector, 20 billion rupees (66.3%) will depend on foreign aid (10.4 billion rupees in grants and 9.6 billion rupees in credit). As for allocations within the public sector, assistance will be given to social services, the mining and manufacturing industries, power, agriculture, irrigation and forestry.

To promote the role of the private sector, the Government intends to accelerate infrastructure-related foreign investment and joint ventures in the mining and manufacturing industries (water resources, petroleum, etc.) while unifying the approval process of new industries.

Regarding plan, a policy has been made to give higher priority to 50 projects to promote effective utilization of foreign aid. These projects are divided among agriculture, industry, forestry, irrigation, transportation and hydroelectric power generation.

On the other hand, the Government has a policy to increase the chances for successful accomplishment of the project in accordance with the present situation by reducing the time required between planning and completion in view of the conditions of the past six Plans. In doing so, the Government is placing emphasis on cooperation with private organizations while extending consideration to various projects along the lines of Basic Human Needs, health and hygiene services, services for improving foods, clothes and house, as well as improvement of education (raising the literacy rate from 29% to 39%).

In addition, the Government is focusing on the population issue, both domestic and immigrants from outside the country, from the

viewpoint of restraining the population growth. In terms of trade, the Government aims to reduce foreign debt by setting a target for exports during the period of this project at 10.7 billion rupees. It is also devoting effort to domestic fund raising as part of the private sector utilization policy, and raising funds from joint venture banks such as NAB (Nepal-Arab Bank), GB (Grendley Bank) and FBI (Banque Indosuez).

The necessity for structuring development policy and various socioeconomic project has been pointed out with the basic needs of Nepal - such as food, clothes, house, education, population and security - in the background. By sector, promotion of the public sector, as well as assigning a greater role to be played by it, is considered important. The preparatiuon of the environment for local development rooted in Panchayat will play a greater role in the future social structure.

1) Allotment of Development Expenditures

(Unit: million rupees)

	Public Sector	Private Sector	Panchayat Sector	Total
Agriculture, Forestry, Irrigation	9,340	7,380	550	17,270
Mining and Manufacturing, Power	7,860	4,270	30	12,160
Transportation and Communications	5,690	2,020	600	8,310
Social Service	7,260	8,290	820	16,370
Total	30,150	21,960	2,000	54,110

Source: The Rising Nepal

2) Changes in Allotment by Plan

(Unit: million rupees)

First Plan (1960-65)

	Plan
Agriculture, etc.	63.5
Transportation and Communications	111.5
Irrigation, Power, Forestry	70.0
Mining and Manufacturing, Tourism	25.0
Social Service	56.5
Others	3.5
Total	330.0
(Results)	214.4)

Second Plan (1962-65)

	Plan
Agriculture, Forestry and Irrigation	81.6
Transportation and Communications	143.5
Industry and Tourism	102.0
Power	91.0
Social Service	102.7
Others	79.2
Total	600.0
(Results)	596.8)

Third Plan (1965-70)

	Plan
Agriculture and Forestry	647.4
Transportation, Communications and Power	931.0
Industry and Irrigation	437.0
Social Service	414.5
Others	70.0
Total	2,500.0

Fourth Plan (1970-75)

	Plan
Agriculture Forestry and Irrigation	1,171.8
Transportation and Communications	1,252.0
Mining and Power	720.0
Social Service	381.5
Others	14.7
Total	3,540.0

Fifth Plan (1975-80)

	Plan
Agriculture Forestry and Irrigation	3,499
Transportation and Communications	3,103
Mining and Power	1,808
Social Service	1,677
Total	10,087

Sixth Plan (1980-85)

	Plan
Agriculture Forestry and Irrigation	10,570
Transportation and Communications	5,870
Mining and Power	8,810
Social Service	8,690
Total	33,940

Seventh Plan (1985-90)

	Plan
Argriculture Forestry and Irrigation	17,270
Transportation and Communications	8,310
Mining and Power	12,160
Social Service	16,370
Total	54,110

Source: Dr. Y. P. Pant: Economic Development of Nepal (First through fifth Plans), The Rising Nepal (Sixth and seventh Plans)

CHAPTER 4

AN ASPECT OF COOPERATION

Seigo Tsujii
Director
The Japan Nepal Society

1. Cooperation from Japan

The first assistance of cooperation, grants or credit, ever to be assisted on a governmental level was the commodity credit system (\$1 million, Export-Import Bank of Japan, 5.00% interest rate, period of 12 years with two-year deferment) signed in March 1970. As for grant, the first cooperation was assisted through Tansen Water Supply Expansion Project (500 million yen) in 1976.

As shown in Table 1-1, a total of 65,082 million yen (48,567 million yen grants and 16,515 million yen credit) has been allocated to cooperative projects through the end of December 1986. Projects include items covering Basic Human Needs which account for the majority.

Such basic projects covered broad areas including agriculture (KR, KR II, food storage, etc.), medicine and health (rural medical facilities, teaching hospital, nursing campus, children hospital, etc.), communications (electrification of rural regions, expansion of rural telecommunications, medium-wave radio broadcasting networks, etc.), transportation (expansion and reinforcement of transportation facilities), cultural grant and construction of Kulekhani hydroelectric power plant through yen credit. Categories may not be changed in the future. On an annual basis, grants have been on the level of 6 billion yen and assisted through several projects.

In bilateral cooperation seen from Nepal's side, Japan has been in first place for the last few years.

Although hotel construction at the foot of Mt. Everest and in the suburbs of Kathmandu and Lumbini has been cited as examples of private capital cooperation (Table 2-2), they may be inactive compared with inter-governmental cooperation. To further develop the relationship between Japan and Nepal, a gradual increase in private level cooperation seems to be necessary. Evidence of such cooperation could be noted by the mission to Nepal of Japan Chamber of Commerce and Industry in December 1983.

Regarding technical cooperation (Table 2-3), acceptance of trainees and dispatch of specialists (including investigation mission) have been implemented in various areas, ranging from the international and governmental agency level, such as the Asian Productivity Organization and Japan International Cooperation Agency, to domestic private organizations. As for Japan Overseas Cooperation Volunteers (Figure 2-4), a total of 345 volunteers (of which 91 were women) were dispatched to Nepal between 1970 and 1986. This ranks Nepal as one of the top five countries to which volunteers are dispatched, and at present, 75 volunteers (of which 10 are women) are dispatched in Nepal.

2. Cooperation Extended by Foreign and International Organizations

Many organizations have been assisting Nepal through capital and technical cooperation. In bilateral cooperation, major providers include Japan, U.S.A., U.K., Germany F.R., Canada, Switzerland, Denmark, France, China P.R., India, U.S.S.R., Kuwait and Saudi Arabia. Meanwhile, in international organizations, they are ADB (Asian Development Bank), EEC (European Economic Community), IFAD (International Fund for Agricultural Development), IDA (International Development Association), OPEC Fund, and United Nations-related agencies such as UNCDF (United Nations Capital Development Fund), UNDP (United Nations Development Program), UNICEF (United National Children's Emergency Fund), WFP (World Food Program), and FAO (Food and Agriculture Organization of the United Nations).

As shown in Table 2-1 to 2-3, infrastructure-related fields such as agriculture, transportation, and power account for major projects from these countries and organizations.

Historically speaking, Nepal has been largely dependent on India because of its geographical situation of being sandwiched between two large countries, China P.R., and India. Maintaining mutual relationship with India is of importance to Nepal, and the two countries have been close since before Nepal opened the country in 1951. The relationship with India is based mainly on power and transportation. With China P.R., it is steadily being strengthened, although minor problems have been encountered since diplomatic relations were established in 1955. Cooperative efforts have produced positive results mainly in the areas of power, transportation, and textile plants.

With U.S.A., it has been expanded since diplomatic relations were established in 1947, in areas such as agriculture, education, health and family planning. With U.S.S.R., it has been cooperated since diplomatic relations were established in 1977 and Economic and Technical Agreements concluded in 1977, which bore fruits in the construction of various plants. In addition, efforts are being made to establish closer relationships with OPEC countries aimed at raising funds for promotion of economic development.

International organizations have assisted cooperation in a wide range of areas over a long period of time with emphasis on Basic Human Needs and infrastructure. Various projects for both independent and joint cooperation have been developed.

In the field of technical cooperation, countries such as U.S.A., U.K., Switzerland, Germany F.R., and China P.R., have been assist steady cooperation for many years, through organizations such as the Peace Corps (U.S.A.), SATA, (Switzerland), GTZ (Germany F.R.), and various agencies of the United Nations also have been expanding close relations

and have obtained conspicuous results with emphasis on Basic Human Needs.

3. An Aspect of Cooperation

For a country like Nepal, whose GNP per capita is about \$160, it may be necessary from a humanistic and moral standpoint as well as on a principle of interdependence to assist cooperation. Japan, aside from being one of major countries for several years in bilateral cooperation, also assist substantial cooperation through international organizations as one of major contributors to IDA, ADB, and various United Nations agencies. Other foreign countries are also expanding steady results by mutual understanding each other.

Present 7th Five-Year Plan with a budget of 54.1 billion rupees (\$3 billion) continues to be largely dependent on contributions in the form of foreign aid. Although the GNP is an important index, it may not fully reflect whether the basic needs of the people based on national conditions are being perfectly met. Therefore, it may be also important to judge the basic needs of each country according to its characteristics. In the case of Nepal, people's basic needs should be determined with consideration given to geographical, social, and economic realities. Namely, they are food, clothes, house, education, population and security.

As for the outlook, it is necessary to implement policies against a population growth of 2.6% a year from a comprehensive viewpoint including interrelations with agricultural and regional development, rather than independently implementing population policies. Furthermore, various measures for that purpose must be agreed on by Nepal, foreign governments, international organizations, and private sectors. The activities of KMT must be carried out with significance to promote the conservation and preservation for nature and environment in harmony with such policies as development and population. Cooperative efforts are necessary to correspond to the needs of the people, along the lines of self-help efforts by the people themselves and foster people who will shoulder future nation. It is necessary to promote and strengthen the relationship through the cooperation in grass-roots as well as governments and organizations, and should encompass exchange covering broad areas. Internationally, it may have important role now on that the Secretariat of SAAC (South Asian Association for Regional Cooperation), formed in December 1985, is established in Kathmandu. A system of cooperation rooted in the needs of the country and its people is desired now on.

1. Cooperation from Japan (as of end of December, 1986)

1-1 Financial cooperation (government)

(unit: million yen)

	Grant					Subtotal	Credit	Total
	General	Cultural	KR	KR II	Debt relief			
1976-80	6,940	30	2,678	4,700	106	14,454	4,365	18,819
1981	3,700	--	--	2,200	86	5,986	--	5,986
1982	4,270	--	--	--	48	4,318	7,344	11,662
1983	1,000	--	916	2,500	109	4,525	4,806	9,331
1984	3,714	--	278	2,600	116	6,708	--	6,708
1985	3,269	29	--	2,600	141	6,039	--	6,039
1986	4,455	--	--	2,000	82	6,537	--	6,537
Total	27,348	59	3,872	16,600	688	48,567	16,515	65,082

1-2 Financial cooperation (private sector)

(unit: thousand dollars)

	FY1983		FY1984		FY1985	
	Number of cases	Amount	Number of cases	Amount	Number of cases	Amount
Overseas investment	---	---	2	340	3	490

1-3 Technical cooperation

(unit: persons)

	FY1983	FY1984	FY1985	Accumulated total up to FY1985
Acceptance of trainees	101	97	107	1,377
Dispatch of specialists	117	107	116	964 (including investigation missions)
Total	218	204	223	2,341

Source: "Current Situation of Economic Cooperations and Their Problems", Ministry of International Trade and Industry, 1986

1-4 Japan Overseas Cooperation Volunteers
(sum total from 1970 to 1986)

Agriculture, forestry and fisheries	90 (1)	Sports	34 (0)
Health and hygiene	77 (76)	Maintenance and operation	28 (0)
Civil engineering and architecture	63 (0)	Others	1 (0)
Education and Culture	52 (14)	Total	345 (91)

Note: Figures inside parentheses are the number of women
Source: JOCV Executive Office

2. Cooperation from Foreign Governments and International Organizations

2-1 Amount spent in foreign aid by division

(unit: million rupees)

	1982/83			1983/84			1984/85		
	Grant	Credit	Total	Grant	Credit	Total	Grant	Credit	Total
Agriculture	72.1	163.2	235.3	107.2	208.2	315.4	89.4	376.0	465.4
(Irrigation)	133.7	134.2	267.9	87.9	249.6	337.5	154.8	294.4	449.2
(Forestry)	44.0	49.1	93.1	54.0	46.5	100.5	73.0	62.8	135.8
(Others 1))	1.8	1.1	2.9	1.0	3.3	4.3	2.5	0.2	2.7
Transportation	171.3	93.6	264.9	195.7	105.4	301.1	155.8	400.1	555.9
Electricity	151.9	161.8	313.7	119.2	343.7	462.9	41.8	286.8	328.6
Communications	1.0	69.2	70.2	--	95.1	95.1	20.0	65.2	85.2
Industry and Commerce	60.4	150.8	211.2	45.0	169.3	432.3	50.8	141.0	191.8
Education	140.5	27.4	167.9	80.9	57.9	138.8	49.2	52.7	101.9
Health	112.9	3.8	116.7	94.7	5.0	99.7	135.6	5.9	141.5
Drinking Water	6.2	110.4	116.6	2.8	75.4	78.2	17.6	38.5	56.1
Others 2)	191.0	20.2	211.2	84.7	31.0	115.7	121.4	14.4	135.8
Others	3.3	0.9	4.2	3.5	--	3.5	11.6	15.0	26.6
Total	1,090.1	985.7	2,075.8	876.6	1,670.9	2,547.5	923.5	1,753.0	2,676.5

Source: HMG-Economic Survey 1985/1986

Note: 1) Survey and land reform

2) Panchayat and other social services

2-2 Amount received in aid for development conducted
by the government

(unit: million dollars)

	1983	1984	1985
Net amount received	200.7	198.3	236.3
OPEC countries	- 0.9	- 0.9	- 1.5
International organizations	92.2	100.8	114.3
DAC member countries	109.5	98.4	123.5
(Japan)	28.3	28.5	50.7
(U.S.A.)	22.0	22.0	21.0
(Germany F.R.)	11.0	11.3	12.4

Source: "Current Situation of Economic Cooperations and
Their Problems", Ministry of International Trade
and Industry 1986

2-3 Balance of aid received by the government (1983/84)

(unit: million rupees)

Bilateral		International organizations	
Japan	287.6	IDA	2,547.4
Kuwait	282.5	ADB	1,598.7
France	89.2	EEC	90.2
U.S.S.R.	53.9	OPEC	79.3
Denmark	27.0	IFAD	52.3
U.S.A.	20.3	Total	5,132.3
India	3.9		

Source: Nepal Rastra Bank

CHAPTER 5

DATA

1. Population

(1) Population by Year of National Census

(Unit: 1,000 persons)

Year of national census	Population	Year of national census	Population
1911	5,639	1952 ~ 54	8,473
1921	5,574	1961	9,413
1931	5,533	1971	11,556
1941	6,284	1981	15,023

Source: Central Bureau of Statistics

(2) Population and Population Density by Development Region (1981)

Region	Population	Area (km ²)	Population density
Eastern Male Female	3,708,923 1,901,957 1,806,966	28,456	130.3
Central Male Female	4,909,357 2,538,615 2,370,742	27,410	179.1
Western Male Female	3,128,859 1,584,542 1,544,317	29,398	106.4
Mid-Western Male Female	1,955,611 994,505 961,106	42,378	46.1
Far Western Male Female	1,320,089 675,717 644,372	19,539	67.6
Total Male Female	15,022,839 7,695,336 7,327,503	147,181	102.1

Source: Central Bureau of Statistics

(3) Population Projection for Nepal (1981)

(Unit: person)

	Male	Female	Total
1986	8,813,320	8,317,957	17,131,277
1991	10,000,244	9,370,161	19,370,405
1996	11,151,359	10,387,722	21,539,031
2001	12,235,540	11,357,416	23,592,956

Source: Central Bureau of Statistics

(4) Population Projection by Age (1986)

(Unit: person)

Age	Total	Male	Female
Total	17,131,277	8,813,320	8,317,957
0~4	2,902,212	1,511,563	1,390,649
5~9	2,323,843	1,211,260	1,112,583
10~14	2,005,617	1,046,297	959,320
15~19	1,674,250	880,235	794,015
20~24	1,433,785	732,196	701,589
25~29	1,269,290	628,114	641,176
30~34	1,142,867	555,202	587,665
35~39	984,176	484,337	499,839
40~44	831,707	419,460	412,247
45~49	697,018	359,054	337,964
50~54	568,010	298,514	269,496
55~59	445,982	237,615	208,367
60~64	337,463	179,279	158,184
65~69	239,018	125,620	113,398
70~74	148,457	77,800	70,657
75~79	72,520	38,237	34,283
80~	55,062	28,537	26,525

Source: Central Bureau of Statistics

2. Education

(1) Current Status of School Education in 1984

	Primary	Lower secondary	Secondary
No. of schools	11,660	3,396	1,235
Enrolment	1,747,857	238,038	216,473
Boys	1,237,286	180,152	170,018
Girls	510,571	57,886	46,455
Total number of teachers	46,484	10,602	6,467
Trained	14,898	4,641	3,556
Untrained	31,586	5,961	2,911

Source: Ministry of Education and Culture

(2) Status of Higher Education (1984)

Faculty	No. of Students	Faculty	No. of Students
Engineering · Science and Technology	10,973	Humanities and Social Sciences	21,552
Medicine	1,130	Management	12,403
Agriculture and Animal Science · Forestry	1,509	Law	4,209
Education	3,407	Sanskrit	372
		Total	55,555

Source: Tribhuvan University

(3) Number of Schools by Development Region (1984)

Area	Primary	Lower secondary	Secondary
Eastern	2,752	840	285
Central	3,219	940	386
Western	2,312	662	276
Mid-Western	1,646	461	139
Far Western	1,731	493	159
Total	11,660	3,396	1,235

(4) Number of students by Development Region (1984)

Area	Lower Secondary	Secondary	University
East	66,265	61,735	10,558
Boys	49,226	48,464	
Girls	17,039	13,271	
Central	78,371	77,102	36,778
Boys	57,918	58,487	
Girls	20,453	18,615	
Western	48,980	42,144	6,099
Boys	35,508	32,166	
Girls	13,472	9,978	
Mid-western	21,227	17,184	1,855
Boys	17,274	14,549	
Girls	3,953	2,635	
Far Western	23,195	18,308	265
Boys	20,226	16,352	
Girls	2,969	1,956	
Total	238,038	216,473	55,555
Boys	180,152	170,018	
Girls	57,886	46,455	

Source: Ministry of Education & Culture
Tribhuvan University (data for university only)

(5) Educational Expenses Against National Budget

(Unit: 1,000 rupee)

	1980/81	1981/82	1982/83	1983/84
Primary	114,247	164,779	224,000	
Lower secondary & secondary	79,526	86,776	113,144	
University	150,279	202,327	370,850	
Total	429,681	568,896	836,902	9,422,613

Source: Youth of Nepal: T. C. & I. Majupuria

3. Industry

(1) Gross Domestic Product (Nominal)

(Unit: million rupee)

	1982/83	1983/84	1984/85
Agriculture	19,082	22,087	
Mining	85	96	
Manufacturing	1,460	1,650	
Electricity, Gas, Water	127	140	
Construction	2,377	2,502	
Commerce	1,199	1,355	
Transport	2,129	2,306	
Financing	2,594	2,832	
Public welfare · Social welfare	2,591	2,801	
GDP (factor expense)	31,646	35,769	39,162
Indirect tax (net)	2,117	2,715	2,576
Agriculture	200	230	—
Non-agriculture	1,917	2,185	—
GDP(market price)	33,761	38,184	41,738
GDP(1974/1975 price)	20,297	21,873	22,520
(Agriculture)	12,478	13,668	13,990

Source: HMG · Economic Survey 1985/1986

(Note) Fiscal year: July 16 ~ July 15 of the following year

(2) Yield of Major Agricultural Products

(Unit: 1,000 tons · ha)

	1983/84	1984/85	1985/86	Planted area (1984/85)
Food Grain				
Paddy	2,757	2,706	2,830	1,377
Maize	761	820	874	579
Wheat	634	534	589	452
Barley	22	24	23	28
Millet	115	124	138	134
Cash crops				
Sugar cane	509	408	580	17
Oilseeds	73	84	82	128
Tobacco	7	6	5	9
Jute	25	33	61	
Potato	383	420	426	66

Source: HMG · Economic Survey 1985/86

(Note) 1985/86 provisional figures

(3) Output of Major Industries (1984/85)

Item	Unit		Item	Unit	
Jute goods	ton	20,026	Beer	1000ℓ	2,278
Sugar	ton	11,039	Cement	ton	31,479
Cigarettes	100,000 cigarettes	42,520	Biscuits	ton	4,339
Tea	ton	989	Plywood	1000f ²	1,087

Source: HMG · Economic Survey 1985/86

(4) Food Balance by Region (1983/84)

(Unit: MT)

	Production	Requirement	Balance
Eastern	700,934	558,503	142,431
Central	1,017,000	828,130	188,870
Western	469,099	468,144	955
Mid-Western	338,951	378,945	- 39,994
Far Western	216,507	265,613	- 49,106
Total	2,742,491	2,499,335	243,156

Constituents: Rice, wheat, corn, millet, barley

(5) Transition in Food Balance

(Unit: MT)

	Production	Requirement	Balance
1980/81	2,409,347	2,082,847	326,500
1981/82	2,508,593	2,247,624	260,969
1982/83	2,196,526	2,307,468	- 110,942
1983/84	2,742,491	2,499,335	243,156

Source: Ministry of Agriculture

4. Trade

(1) External trade

(Unit: Million rupee)

	1982/83	1983/84	1984/85	1985/86 (first nine months)
Trade with India				
Exports	843.3	1,160.7	1,601.7	958.7
Imports	2,499.6	3,058.0	3,895.8	3,272.6
Balance	- 1,656.3	- 1,897.3	- 2,294.1	- 2,313.9
Others				
Exports	288.7	543.2	1,138.9	1,354.0
Imports	3,814.3	3,456.3	3,846.3	3,547.9
Balance	- 3,525.6	- 2,913.1	- 2,707.4	- 2,193.9
Total				
Exports	1,132.0	1,703.9	2,740.6	2,312.7
Imports	6,313.9	6,514.3	7,742.1	6,820.5
Balance	- 5,181.9	- 4,810.4	- 501.5	- 4,507.8

Source: HMG · Economic Survey 1985/86

(Note) Imports: C. I. F.

Exports: F. O. B.

(2) Balance of Payments

(Unit: Million rupee)

	1982/83	1983/84	1984/85	1985/86 (first nine months)
1. Trade balance	- 5,197.0	- 4,823.6	- 5,022.4	- 5,523.5
Exports (F. O. B.)	1,135.8	1,709.9	2,746.4	2,317.5
Imports (C. I. F.)	6,332.8	6,533.5	7,768.8	6,841.0
2. Service (net)	1,634.9	1,406.8	1,392.0	1,250.0
Travel (receivables)	844.2	561.0	710.3	730.0
Investment income (")	203.0	94.6	92.6	44.0
Others (")	1,474.6	1,924.8	1,898.2	1,636.0
3. Unrequited Transfers (net)	1,890.7	2,073.4	2,256.5	1,904.0
Private (")	549.7	614.1	681.1	547.0
Government grant	1,315.0	1,381.2	1,503.5	1,260.0
Indian excise refund	8.6	59.5	71.8	76.0
Others	50.0	56.5	31.6	94.0
4. Current Account Balance	- 1,671.4	- 1,343.4	- 1,373.9	- 1,369.5
5. Foreign loans (net)	924.4	1,203.5	1,097.3	1,562.0
Loan	963.9	1,274.3	1,159.5	1,707.0
Amortization	(- 39.5)	(- 70.8)	- 62.2	- 145.0
6. Miscellaneous Capital Items (net)	72.0	13.9	- 589.4	328.0
7. Change in Reserves (- indicates an increase)	- 675.0	- 126.0	- 866.0	520.5

Source: HMG · Economic Survey 1985/86

(3) Exports and Imports Viewed from Japan

(Unit: \$1,000)

	1984	1985	1986	1987 (Jan. - Mar.)
Exports	39,376	60,993	65,401	25,655
Imports	539	1,127	1,602	1,482
Balance	38,837	59,866	63,799	24,173

Source: Ministry of Finance: Outlook of Foreign Trade

(4) Trade by Major Commodity (1984)

(Unit: Million rupee)

	Exports	Imports	Balance
Food & Live Animals	992.1	782.9	209.2
Tobacco & beverages	5.0	79.4	- 74.4
Crude Minerals, Inedibles, except Fuel	486.8	424.5	62.3
Mineral fuels and Lubricants	1.0	918.8	- 917.8
Animal & vegetable oils and Fats	57.1	122.7	65.6
Chemicals & Drugs	1.2	908.0	- 906.8
Manufactured Goods classified chiefly by Materials	649.1	2,376.9	- 1,727.8
Machinery & Transport Equipments	33.7	1,671.4	- 1,937.7
Miscellaneous Manufactured Articles	513.4	450.6	62.8
Others	1.2	6.9	- 5.7
Total	2,740.6	7,742.1	- 5,001.5

Source: Economic Survey 1985/86

5. Finance

(Unit: Million rupee)

	1984/85	1985/86	1986/87	1987/88
Total expenditure	8,395.0	9,797.1	11,872.7	15,187.7
Regular expenditure	2,906.2	3,584.0	4,313.7	4,961.7
Development expenditure	5,488.8	6,213.1	7,559.0	10,226.0
Economic service	3,617.0			
Social service	1,501.2			
Economic administration · plan and others	370.6			
Sources of Financing Revenue	4,840.1	4,644.5	5,815.0	7,355.8
Revenue	3,916.6			
Tax revenue	3,151.2			
Non-tax revenue	765.6			
Foreign Aid (Grants)	923.5	1,172.9	1,489.2	2,492.2
Fiscal balance	- 3,554.9	- 3,979.7	- 4,568.5	- 5,339.8
Sources of financing deficit				
Foreign Aid (Loan)	1,754.9	2,501.1	2,847.0	4,109.8
Internal loan	1,800.0	1,403.4	1,721.5	1,230.0
Cash balance	—	75.2	—	—

Source: HMG: Budget Speech of Fiscal Year

(Note) Budget figures for 1984/85 ~ 1985/86 are actual; those for 1986/87 revised; and those for 1987/88 proposed

6. Economic Development Plan

(1) Actual Results of Respective Periods of the Plan

(Unit: %)

	Second (1962~65)	Third (1965~70)	Fourth (1970~75)	Fifth (1975~80)	Sixth (1980~85)
Growth rate of GDP (annual rate)	2.0	2.6	2.0	2.2	4.4
(Target of the above)	—	(3.8)	(4.0)	(5.0)	(3.2)
Food production growth rate (annual rate)	1.0	1.0	1.8	- 2.8	3.2
Share of agriculture to GDP	65	68	68	60	—
Public development expenditure against GDP	—	4.7	5.8	9.7	—

Source: HMG etc.

(Note) During the first period, draft projects were assembled only.

(2) Gross Government Expenditure for the Sixth and Seventh Plan

(Unit: Million rupee)

	Sixth plan		Seventh plan	
	Expenditure	%	Expenditure	%
Agriculture, Irrigation, Forestry	6,600.0	30.4	9,840.0	30.6
(Agriculture)	(2,300.0)	(10.6)		
(Irrigation)	(3,060.0)	(14.1)		
Manufacturing, Mining, Power	5,600.0	25.8	8,360.0	26.0
(Manufacturing, mining)	(1,700.0)	(7.8)		
(Power)	(3,800.0)	(17.5)		
Transport, Communications	4,230.0	19.4	5,690.0	17.7
Social service	1,660.0	7.6	8,260.0	25.7
Others	3,660.0	16.8		
Total	21,750.0	100.0	32,150.0	100.0

Source: The Rising Nepal

