Chapter - One

Development in Karnali and the Food Crisis

1.1. Introduction

For a long time, we did not know much about hunger and hunger deaths in Karnali, even though food deficits and shortages have been reported from time to time. But in the past, Karnali was considered a prosperous region. It is still considered as a place with immense potentialities, but now suffers from food deficits, diseases, and various unfulfilled basic needs. Every day we hear and read about impending food shortages and consequent hunger and deaths in the Far Western region, especially in Karnali. Ever since media reports discovered hunger deaths in Karnali in the mid-1990s, attention has been focused on food shortages, diseases, and hunger deaths. That famine caused the deaths of over 1,500 people (Anno. 2062 v.s.). After the famine there was an epidemic of influenza, which killed more than 1,000 people. Medical professionals visiting the area claim that the deaths that had occurred at that time were the result of nutritional deficiency, which had eroded the disease-resistance capacity of the people. According to them, the nutritional deficiency was not the result of a sudden famine and food shortages but a

chronic problem that had emerged due to low consumption and hard work over a period of time.

In a way such reporting is useful for drawing the attention of public, government agencies, and international development organizations. But it also feels dehumanizing to read such stories regularly. Despite such reporting, not much seems to have been done to avert such situations. On the other hand, the policies of the government in the 1990s and early 2000s have been partly responsible for aggravating the problem.

Now Karnali is dependent on external sources for food and other developmental activities. The government started supplying food to Karnali in 1976 to ease the problem caused by famine. At that time, most had assumed that this support, i.e., external food aid, would be a temporary measure. But it continued and its volume seems to have increased. In 2004 and 2005, the government spent Rs 140.6 million and Rs 152.4 million for food aid in Karnali alone. Considering the expenditure for food aid in Karnali since the 1970s, billions of rupees must have been spent. But the condition of people in terms of food security is deteriorating (Anno 2062 v.s.).

It was only because of its newly acquired freedom in the 1990s that the media was able to report the hunger and deaths. In the past too, there must have been such problems, but the media did not report them because it was controlled by the government. The tales reported by government officials who had spent some time in that region and those travelling in that region clearly show that there were problems related to food security and health.

The freedom of the media in the 1990s and their reporting of the hunger put pressure on the government to act. But the action of the government was again limited to short-term solutions, which meant the continuation of past programs like more food aid from external sources. It has become clear that such help did not do much in terms of developing a sustainable food system within Karnali. In fact, it created a dependency syndrome. The intense conflict between the government and Maoist insurgents,, in the name of 'People's

war' in Karnali in the late 1990s and early 2000s also compounded the already existing food security problems in that region (Seddon and Adhikari 2004). According to a recent report (WFP and OCHA 2007), two-thirds of the Vilage Development Committees (VDCs) of Karnali suffered from high to severe impact of the conflict. There was a direct correlation of intensity of conflict with its impact on livelihood. Therefore, the livelihood systems of these VDCs were severely and adversely affected.

It is not only that food production declined during the conflict but also the income opportunities that would help in purchasing food. The opportunities for people, like selling apples, milk products, and vegetables had almost been wiped out during the conflict period. On the other hand, the cost of food has skyrocketed. A kilo of sugar would cost Rs 70, and a kilo of poor quality rice Rs 40 in these locations (in accessible areas they would cost Rs 28 and Rs 12 respectively). A small pack of salt costing Rs 7-8 in accessible areas would cost more than Rs 30 in such locations of Karnali. Because of lack of labor work, which used to be available in transporting goods and commodities before the armed conflict or the Maoist insurgency, the income of the people had declined. Similarly, income from activities like vegetable and milk production had reduced as people were not able to sell them in the market centers. People could buy less food as compared to the past. Moreover this scarce food had also become expensive. To escape the famine and insecurity, a large number of young people had out-migrated to India.[1] Even though out-migration, especially the seasonal migration to India during slack periods in farming, was, or had been, a common feature since a long time, armed conflict in the period 1996–2006 caused an increase in out-migration. Family out-migration in particular increased as a result of conflict.

Hunger and famine have now been regular features in Karnali. For example, about 0.8 million people in the far western region

[1] In the expectation that a peaceful environment would prevail after the people's revolution in April 2006, people had also started to return home.

(Seti and Karnali zones) were expected to face hunger deaths due to shortage of food in 2002–3 (Mainali 2002). Mainali's analysis was based on field observations and the opinions of informed local people of that region. The main reason for so severe a famine was that there was reduction in crop production by 60 percent due to bad weather (unfavorable rainfall patterns and hailstorms) coupled with Maoist insurgency and military action, which have been hindering the flow of food from the food-surplus region of the Tarai to the food-deficit regions of hills and mountains. This region has traditionally been a food-deficit area, but that year even the normal production had been drastically reduced. The food depot from which NFC used to distribute a small amount of food had been removed because of the conflict. To reach another nearby food depot, people had to walk a full day, and they would be given only 10 kg per month.

This description of the situation in Karnali[2] clearly tells us that food availability as well as access or entitlement had been severely and adversely affected by the conflict. There is also a very high annual variation in the production and availability of food. These are also the conditions under which most famines and hunger deaths have occurred in the world. Despite such situations, government policy has not been favourable. In a report published in *The Kathmandu Post* on 20 December 2002, it was mentioned that 'NFC [Nepal Food Corporation], a government agency, is going to cut food supply to far-western region.' Because of fund shortages, NFC had made a decision to reduce food supply to the far-west by 2,000 mt. Normally NFC which is responsible for distribution of food to food deficit areas used to supply 8,500 mt food to this

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[2] The Karnali region is understood in two ways. First, there is Karnali zone as identified by the government, which includes five districts: Mugu, Humla, Jumla, Dolpa, and Kalikot. People also understand Karnali as a region which covers much of the area in hills and mountain in mid- and far-West Nepal. The government in its 11th plan (three-year interim plan, 2008–10) has developed a concept of greater Karnali for the development of Karnali region as a whole. This region includes most of the districts in the mid-West and far West.

region, but in 2006 it supplied only 6,400 mt. The reason for this, according to the officials at NFC, is that this year the government has reduced the fund grant by Rs 40 million. Usually NFC used to receive Rs 225 million per year for subsidy on transportation of food. But this year government has provided only Rs 185 million. On the other hand, transportation price has increased by 20–30 percent.

The food crisis continued in Karnali in 2006 and 2007, even after the peaceful ending of armed conflict. For example, Neupane (2006) writes that there is a severe shortage of food because of drought and the World Food Programme is planning an intervention for immediate help. In early 2008 too, the food crisis is reported to have occurred in the mid and far west, especially in the five districts of Karnali. The food stocks at the household level have decreased by half because of the constraints in supply and increase in price. Ban on rice (non-Basmati) export from India, disruption in transportation, and general increase in food price internationally were the causes for the food crisis (Ghimire 2008). Another report published in June 2008 revealed that more than 300,000 people in nine districts of mid-west and far-west regions of Nepal were suffering from food insecurity because of severe drought and increase in food prices (Relief Web 2008). Drought that occurs frequently in these regions compounds the food insecurity problems because it leads to decline in local production on which people have control. Generally, home production is taken as a vital reserve of food and is used to cope with the times of crises. But drought makes this coping mechanism weak and makes people more vulnerable to food insecurity. This also raises a question as to why droughts occur frequently in these regions. This is also partly related to physiographic features of Karnali, which is briefly described in the last section of this chapter.

Despite these continued problems, the government, through its para-statal organization NFC is reducing food aid. In the coming three years of the Interim Plan (2008-10), NFC will supply about

10,000 mt yearly for the 30 districts of the country (NPC 2008). This means that the share of Karnali region will also drop considerably. One of the reasons for reducing the public distribution of food is the expansion of roads and access to food supplied through markets or private traders. In places where the road has reached, people also prefer to buy food from the private traders as they seem to provide various other services (like food on credit and easy accessibility), but in difficult times the private traders also take advantage and create artificial shortages. Given such circumstances, the role of public distribution is also important, especially during crises, to counter market distortions and stabilize prices. After the partial completion of the road from Surkhet to Jumla (i.e., the Karnali highway), food prices dropped by about 50 percent and marketing activities soared in Jumla Khalang and other market centers touched by the road. But this road is not fully functional yet.

Even though conflict had exacerbated the food crisis in Karnali, many other factors, mainly political and economic, were responsible for the declining food security situation in the region. In fact, it can be argued that these political-economic factors that led to the decline in food security were also responsible for creating or intensifying the conflict. This understanding is crucial because in the post-conflict period one cannot blame only conflict for the food problem in Karnali. In the last decade, there was also a tendency to use the excuse of the conflict even for the problems that were not caused by it alone. For the understanding of the basic causes of the food crisis, it is important to know what the situation in the past was, how it gradually deteriorated in later situations, and how people coped during food shortages. These dimensions of food security/ insecurity are not studied much. In other words, there is no tendency to study the 'food system'[3] as a whole and find out where the

[3] Here 'food system' is taken as an interaction between people and whole biotic system for the production, distribution and consumption of food, which also includes food habits and culture, and management of waste and pollution.

problems are. There is a general tendency to assume that food security problems are caused mainly by production failures. This assumption has been one of the reasons for overlooking other factors responsible for food insecurity. This study is an attempt at looking at social, economic and political trends in Karnali region and to sort out the present and past factors responsible for food crisis in Karnali. It is expected that if these factors are identified, it would help the government and civil society, including NGOs and INGOs, to work in the right direction to develop a sustainable food system in this region. As the food system is influenced by the overall development of a region (including the development of infrastructure, trade and flow of food, income opportunities, access to income and resources), the causes and consequences of under-development/ development in Karnali also needs to be understood to gain insights into why food security problems have perpetuated in that region.

Until now the government has been providing food aid as humanitarian action, even though it had signed various international covenants that consider food security as a basic human right.[4] The concept of right to food has now been adopted in the Interim Constitution prepared by the government. The Interim Constitution of Nepal 2007, in Article 18 (3), states that every citizen will have right to food sovereignty as defined in the law. Food sovereignty essentially means rights of farmers to produce food, and the rights of consumers to determine what to consume and how to meet their food security requirements. Generally food sovereignty encompasses domestic production and food self-sufficiency aspects of food security. The government's Human Rights Action Plan on food security-related provisions states that food security is a human

[4] The Declaration of Human Rights, 1948 (Article 25) has clearly identified food, shelter and clothing as basic rights. According to international provisions related to economic, social, and cultural rights (1966), 'freedom from hunger' is a basic human right, and each individual should have a right to food. The World Food Summit, 1966, has also considered this food rights concept, and the Nepal government has agreed to make efforts to implement this conception.

right, an important part of 'economic, social and cultural rights'. In line with this provision in the Constitution, the government's three-year Interim Plan (2008–10) also contains a chapter on 'Food Security', which outlines the objectives and strategies of meeting food security.

The Government of Nepal has developed a special program in the Interim Plan (2008–10) for development and socio-economic empowerment of Karnali region (NPC 2008). Here they have defined Karnali region by including four adjoining districts with the five districts (Jumla, Mugu, Dolpa, Humla and Kalikot) of Karnali zone. These additional districts which adjoin Karnali zone are Bajhang, Bajura, Jajarkot and Rukum. In addition, some other adjoining areas (Village Development Committees (VDCs) of Dailekh adjoining the Darchula and Kalikot districts and VDCs of Rolpa adjoining Rukum) have also been included. The reason for developing a larger Karnali is that the problems are more or less similar in this region. Here, programs like Remote Area Development Program, Food for Work, and Upper Mountain Poverty Alleviation Program will be integrated and implemented under one umbrella. The plan has envisioned that the targeted poor people will be identified and provided with skill development training, employment and credit facilities. The other programs include Infrastructural Development Program for Economic Development, Production Program to Benefit the Poor, Tourism Promotion Activities, Rehabilitation of Internally-displaced Persons, Herbs and Rare Fruit Development Programs, and the like.

1.2. Karnali's failed development: social and political-economic perspective

If Nepal's development effort can be considered as a partial success, Karnali's development is still a total failure. Various indicators of human development indicate that the five districts of this zone belong to the lowest rank within the country not only in relative terms but also in absolute terms. In other words, most underdeveloped districts

are located in Karnali zone. Three districts—Mugu, Kalikot and Humla—occupy the last positions in terms of human development index among the districts of Nepal. Jumla and Dolpa seem somewhat better than these districts, but occupy a low position among the other districts of the country (see Table 1.2). The sorry state of affairs in terms of difficulties faced by the majority of people in maintaining their livelihood in Karnali raises a question on the impact of development endeavors there. On the other hand, in terms of development expenditure on a per capita basis, it seems that these districts rank fairly well. For example, per capita development expense is 6th, 7th and 10th highest for Dolpa, Humla and Mugu districts respectively. Kalikot and Jumla come at 32nd and 21st rank (see Table 1.1). But most of the development expenditure is spent on food subsidy, salaries of government personnel, and the like. Moreover, because of lack of roads, bringing things to these districts is in itself a difficult task. For example, a pack of cement which costs Rs 400 in Nepalgunj would cost Rs 5,000–7,000 in Karnali, depending upon the location. Therefore, it is difficult to successfully implement projects in Karnali.

Table 1.1: Development indicators for the five districts of Karnali

	Kalikot	Mugu	Jumla	Dolpa	Humla
Per Capita Income (US $) (Nepal = 240)	142	203	203	235	186
Rank based on Overall Composite Development Index	70	75	69	67	74
Rank based on Poverty Deprivation Index	71	75	67	69	73
Rank based on Socio-economic and Infrastructural Development Index	63	73	65	71	72
Rank based on Women's Empowerment Index	69	75	70	56	73
Rank based on Child Deprivation Index	70	75	73	62	71

	Kalikot	**Mugu**	**Jumla**	**Dolpa**	**Humla**
Child Illiteracy Rate % (Rank)	42.73 (70)	51.75 (75)	46.60 (73)	40.14 (68)	45.26 (71)
Rank based on Gender Discrimination Index	49	74	66	64	72
Adult Gender Imbalance Ration in Literary Status (Rank)	0.22 (69)	0.12 (75)	0.22 (70)	0.26 (68)	0.14 (73)
Adult Gender Imbalance Ratio in Non-agricultural Occupation (Rank)	0.37 (7)	0.13 (69)	0.22 (52)	0.23 (48)	0.14 (63)
Contraceptive Prevalence Rate % (Rank)	7.87 (75)	10.37 (74)	18.99 (62)	12.84 (70)	13.86 (69)
Drinking Water Coverage % (Rank)	48.04 (71)	55.35 (68)	74.54 (44)	36.66 (75)	64.54 (59)
Toilet Facility % (Rank)	42.40 (37)	14.40 (72)	52.38 (26)	13.94 (73)	18.30 (66)
Livestock per Farm Households (Rank)	5.91 (43)	11.19 (6)	11.20 (5)	16.79 (3)	12.76 (4)
Per Capita Development Budget Expenditure (Rs) (Rank)	861 (32)	1,800 (10)	999 (21)	2,724 (6)	2,347 (7)
Overall Literacy Rate (Rank)	38.47 (63)	28.00 (74)	32.52 (73)	34.98 (67)	27.09 (75)
Percent age Share of Girls enrolled at Primary Level (Rank)	31.79 (75)	32.36 (74)	34.13 (70)	43.84 (50)	36.41 (66)
Per Capita Production of food (calorie/day) (Rank)	1445 (72)	1127 (74)	2004 (65)	2781 (47)	1018 (75)

Source: ICIMOD et al. 2003.

Ranks of districts of Karnali on various development indicators as compared to other districts (total 75) of the country. Rank 1 represents the best situation. Figures in parentheses are the ranks.

Table 1.2: Human development situation in five districts of Karnali

	Nepal	Kalikot	Mugu	Jumla	Dolpa	Humla
Human Development Index (HDI)	0.471	0.322 (73)	0.304 (75)	0.348 (70)	0.371 (67)	0.367 (68)
Life Expectancy at Birth	60.98	46.67	44.07	50.82	52.52	58.37
Adult Literacy	48.6	33.2	24.1	26.6	29.0	19.6
Mean Years of Schooling	2.75	1.81	1.40	1.55	1.59	1.25
GDP per Capita (PPP US $)	1310	775	1105	1104	1279	1014
Human Poverty Index (HPI)	39.4	58.9 (70)	61.1 (73)	56.8 (68)	61.9 (74)	63.8 (75)
Chronic Malnourishment Among Children (under 5 years)	50.5	74.2	68.8	74.1	74.2	90.0
Adult Illiteracy Rate	51.4	66.8	75.9	73.4	71.0	80.4
Proportion of population with life expectancy less than 40 years	17.74	36.70	40.30	31.00	28.68	20.96
Population without access to safe water	20.48	54.54	44.83	26.01	63.82	35.80
Gender Discrimination Index (GDI)	0.452	0.274 (74)	0.263 (75)	0.316 (70)	0.341 (67)	0.337 (68)
Life Expectancy (female)	61.5	47.21	45.27	50.47	52.92	58.68
Life Expectancy (male)	60.5	46.18	42.95	51.17	52.17	58.11
Adult Literacy (female)	34.9	10.7	5.2	9.3	11.7	4.8
Adult Literacy (male)	62.7	50.3	41.6	42.5	45.4	33.5
Mean Years of Schooling (female)	1.95	0.88	0.34	0.61	0.71	0.40
Mean Years of Schooling (male)	3.56	2.73	2.45	2.49	2.46	2.10
Estimated Earned Income (female)	0.345	0.258	0.370	0.374	0.388	0.362
Estimated Earned Income (male)	0.485	0.397	0.427	0.423	0.456	0.407
Gender Empowerment Index (GMI)	0.391	0.430 (7)	0.304 (70)	0.362 (41)	0.372 (35)	0.308 (66)
Women's participation in local elections %	19.33	17.79	19.55	19.85	21.63	18.80
Women in professional jobs %	18.75	14.49	10.42	16.72	15.08	11.88
Women in administrative jobs %	12.71	31.78	3.29	6.98	8.52	3.21
Women's share in income	0.302	0.301	0.409	0.414	0.401	0.418

Source: UNDP 2004.

Figures in brackets represent rank among the 75 districts; rank 1 is the best case.

In all the indicators of poverty and food insecurity (see Table 1.3), the districts of Karnali are far behind the average scenario of Nepal. For example, about 64 percent of children (below 60 months) of Kalikot, 70 percent of Mugu, 68 percent of Jumla and Dolpa, and 72 percent of Humla suffer from stunting. The prevalence of severe form of stunting is also extremely high in these districts. The other indictors of nutrition (malnutrition) are also extremely poor for these districts. Within these districts, Jumla seems somewhat better-off. A study conducted in Mugu and Humla districts of Karnali in 2006 revealed that acute malnutrition rate is about 10.1 percent. According to WHO guidelines, acute malnutrition above 10 percent is considered a serious problem. Among the Dalit population of the district, incidence of acute malnutrition was about 15 percent. Regarding the causes of malnutrition, the study found that it was not only due to the lack of access to food but also poor breast-feeding practices, low access to efficient health services, weak care practices, and poor hygiene and sanitation practices. All these components were the aggravating factors that contributed to the precarious conditions of people in Mugu and Humla districts (ACF 2006).

Various reasons have been identified for the total lack of development in Karnali zone. They include both physical and social factor. But the social, including political, reasons are said to be of far more consequence than the geographical (Bhattarai 2005). Even though geography does not pose a problem if there is enough commitment from society and polity, in the early stages of development it does, however, determine the potentiality of a region. Karnali occupies about 15 percent area of the country but accommodates only 2 percent of the population (KIRDARC 2005: 16)). The density is extremely low, just 12 persons per sq km. Bhattarai further states that because of sparse population density and the extremely scattered settlement pattern, it is costly and difficult to provide electricity, water, telephone, and transportation to all. The other fact is that Karnali is now dependent on Kathmandu for

decision-making and investment. There is no autonomy in development and planning. Local resources are not used for the development of Karnali.

Table 1.3: Poverty and food security indicators[5] for Karnali

	Nepal	Kalikot	Mugu	Jumla	Dolpa	Humla
Poverty incidence	0.335	0.568	0.510	0.344	0.397	0.415
Poverty gap	0.097	0.180	0.155	0.086	0.105	0.111
Poverty severity	0.039	0.076	0.065	0.031	0.040	0.042
Calorie intake prevalence	0.398	0.505	0.648	0.533	0.586	0.593
Calorie intake gap	0.076	0.107	0.158	0.111	0.139	0.136
Calorie intake severity	0.022	0.033	0.054	0.034	0.047	0.045
Stunting (below 60 months)	0.504	0.639	0.697	0.676	0.680	0.722
Severe Stunting (below 60 months)	0.206	0.318	0.378	0.356	0.363	0.409
Underweight (below 60 months)	0.452	0.551	0.547	0.495	0.477	0.537
Severe Underweight (below 60 months)	0.146	0.203	0.202	0.166	0.160	0.194
Wasting (below 60 months)	0.096	0.091	0.062	0.063	0.045	0.054
Severe wasting (below 60 months)	0.009	0.007	0.005	0.005	0.003	0.004

Source: CBS et al. 2006.

[5] Poverty incidence: proportion of individuals who are in households with an average per capita expenditure below the poverty line.
Poverty gap: average distance below the poverty line, being zero for the individuals above the line. Poverty severity: average squared distance below the line, thus giving more weight to the very poor. Calorie intake prevalence: proportion of individuals who are in a household to have a calorie intake below the threshold if their average calorie intake falls below a certain level, given for Nepal as 2709 kilocalories per adult equivalent per day. If converted to kilocalories per person, this translates to 2146 kilocalories per person.
Stunting (low height-for-age): having a height at least two standard deviations below the median height for reference population.
Underweight: Same as low weight-for-age.
Wasting: low weight-for-weight. Severe cases are below 3 standard deviations from the median.

It has become increasingly clear that Karnali region is not a potential area for food production. Apart from difficult terrain making transportation and communication difficult, a large area of Karnali region (about 45 percent) lies above 4500 m, which remains covered by snow most of the year. Similarly another 47 percent of the area lies between 2500 m and 4500 m, which is also not suitable for intensive cultivation (KIRDARC 2005: 17). Only in a small part of this area can a single crop can be grown in a year. The land where crops can be cultivated round the year (i.e., lower than 1500 m) constitutes only 1 percent of the total area (Bhattarai 2004). Nationally, 16.3 percent of the area is considered as arable (NIDS 2007). As a result, Karnali region has not been self-sufficient in food production. The food had been obtained even in the past through the exchange of products that were produced in Karnali, and through salt trade in Tibet. Animal husbandry, sale of animals and animal products, herb collection and its trade, and seasonal movement of people and animals in lower parts of Nepal, India and Tibet had been the mechanisms to solve the problem of lower production in Karnali zone. These practices were also time-tested cultural practices adapted to the harsh ecology of Karnali region. These practices had also reduced stress on the resources of this fragile region. The problem of trade with Tibet, various constraints in the movement of animals (like reduction and greater restriction in grazing facilities due mainly to community forestry and private or community control of grazing lands), and increased transportation facilities in the lower regions of the far-west helping in the distribution of mass-produced Indian goods (which actually reduced the need for transportation of goods and commodities through animals) created greater hardships for the people of Karnali (Lama 2001). Community forestry and the greater restriction in grazing and higher fees levied on account of community rights have often been blamed for lack of trading opportunities, and it does seem that trading and transporting opportunities (by animals) have in fact reduced significantly.

Discrimination between high castes and low castes is very high in Karnali region as compared to other parts of Nepal. The lower castes and other poor households have been exploited by the *Mukhiyas, Jimmawals* and *Bada Hakims* (the government functionaries) at the local and regional levels. As a matter of fact, the system of vassal state has been maintained in Karnali by the central government after its annexation in 1846. This entailed the *Bada Hakims*, who were the agents of the central government, giving a sort of contract to *Jimmawals* (for the *Daras*, a collection of villages) and to *Mukhiyas* (for the villages) to raise revenue from the people. These agents kept a portion of this revenue. Otherwise, the government would not interfere in the internal matters of the villages or the *Daras*. Moreover, these agents enjoyed many facilities in return for generating revenue for the central government. This is considered one of the reasons for the poor development in far-western Nepal.

Karnali region has been neglected by the central government for long till now. The non-existence of roads and low availability of health and education facilities are evidence of the neglect of the government, even though it has taken upon itself the responsibility of development for the last 50 years. Even now, Karnali receives low funds compared with its geographical vastness and remoteness. In recent times these funds have mainly been utilized in transporting foodgrains and in paying the salaries of government staff. Only a paltry amount of funds remains for developmental activities (Shah 2062 v.s. ; Bhattarai and Shahi 2062 v.s.; Shahi 2062 v.s.). Shahi (2005), a former elected district leader of Karnali, argues that people are distrustful of outsiders as they enriched themselves in the name of the development of Karnali. This also applied to food aid. He argues that forced dependence on outside food has caused an erosion of Karnali's self-sufficient pride and dignity. In the same line, Uprety (2008) argues that the influence of dominant food culture (i.e., rice culture) has destroyed local foods and their consumption culture in Karnali leading to food insecurity. She recommends promotion of local foods for better food security and nutrition. Of course, given

the fact that there have been food crises every now and then and that the region is highly vulnerable, food aid is certainly needed for some time, but the question is how it is to be organized and how it is to support sustainable development of livelihood opportunities.

Karnali region is also peculiar in the sense that despite being located at a high altitude, it is dominated by caste structure, mainly by Chhetri groups (including Thakuris). About 90 percent of the population belongs to the different groups of this caste structure. *Janajatis* (ethnic groups) make only 7.5 percent of the population. It is interesting to note that in other parts of Nepal, in areas as high as Karnali, *Janajatis* are dominant. Another peculiar characteristic of Karnali is that it contains a large proportion of low-caste people in its population. About 18 percent of the population in Karnali is low-caste, but they own only 8 percent of the total cultivable land of the region. In the whole hilly region of the country, only about 12 percent of the population is low-caste (CBS 2003).

Other social problems specific to Karnali include polygamy, child marriage, untouchability and the *Jari* marriage[6] system. Polyandry is also prevalent among the Jads,[7] i.e., mainly the Bhotias and Tibetans. *Tagadharis* (wearers of holy thread) are said to be exploiting *matawalis* (alcohol drinkers) and Chhetris (Khas). Bista (1989) considers these Khas as a different group, distinct from Chhetris of caste society. He argues that these Khas were promoted to Chhetris by the Brahmins, and have been exploited since a long time. He also

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[6] Jari refers to a sum of money and other goods and commodities paid as compensation by the new husband of a woman to her previous husband. This system devalues a woman's dignity and life. Women become like commodities which can be purchased. A husband who does not like his wife may push her to marry another person and in lieu for that receives money. Women brought by jari are also not treated well, as they are like purchased commodities. This system is one of the reasons for the poor social status of woman in the Karnali region.

[7] Karnali zone is customarily divided into two regions: Jadan and Khasan. Jadan is the upper area which is mainly inhabited by Bhotias following Buddhism. The people living here are also called Jads. The people of lower areas are Khas, followers of Hinduism. This area is also called Khasan. These are not administrative regions of the government.

considers this caste contradiction a reason for the underdevelopment of Karnali region. But Shah (2001) argues that this contradiction alone is not the cause of underdevelopment in Karnali. He further argues against the 'the culture of poverty' of Karnali zone not being conducive for the creation of social and economic capital required for development. The main argument put forward by him is that Karnali has been discriminated by the central government since the unification period (1769). The state had killed the local leadership, and after unification the central government looked down upon Jumlis (people of Jumla; the present Karnali zone more or less corresponds to the Jumla of the past) as dishonest people since they had given difficulties to the rulers of the Nepal immediately after unification. The rulers of Jumla did not surrender as easily as other states like Bajhang in the far-west. This gave sufficient excuse for the state to impose a tight grip on the people of Jumla. The punishment given to these is still remembered as *gorkhe lauri* (*gorkhe* - the ruler, *lauri* - stick). Moreover, the locals were exploited by the officials deputed by the government. Villagers had to feed the officials (mostly outsiders) on a rotational basis. Therefore, the officers from Kathmandu were always feared by the local people. On the other hand, these officers had no intention to develop the region as they were outsiders. The local leaders had disappeared as they fled to Tibet after the defeat. The government appointed *Bada hakims* (like governor of the district who used to have an absolute power over the district affairs) from among the outsiders, who used the local structure of *Mukhiyas* and *Jimmawals*, the local revenue functionaries, to extract whatever revenue could be generated. Then the Jumlis slowly developed a feeling of inferiority and they became content with menial jobs in the offices controlled by outsiders. They developed a cultural mentality of 'being ruled' (KIRDARC 2005: vi). As a result, previously prosperous Karnali began to lag behind in education, health and economic opportunities. It has also been suffering the neglect of the government in recent times because it is dominated by Brahmins and Chhetris, who are considered in Nepal

as caste groups taking most state resources and benefits. But, as discussed above, Brahmins and Chhetris in Karnali belong to the most deprived groups in terms of access to human welfare services (Shah 2001: 13; Shah 2062 v.s.). Shah further says that it is the leadership rooted in Karnali that is essential for development. But until now there is no person in the bureaucracy or the army or the police or in the planning commission that has a feeling for Karnali. Unless such a leadership is developed from the bottom-up approach, the prospects for development of Karnali are poor.

The lack of infrastructure, the marginal nature of farming, and lack of social protection measures make Karnali very vulnerable. Natural disasters like landslides, drought, excessive rainfall, hailstorms and epidemics have a direct bearing on the food availability and access. In 2007, a World Food Programme (WFP) study estimated that about 54,640 people in Karnali (about 12 percent of the population) are at risk of food insecurity. Of them, 35,986 were suffering from deteriorating food insecurity and 18,654 were suffering from acute food and livelihood crisis (WFP 2007).

1.3. Research objectives

The major objective of this research study was to understand the causes of food insecurity in Karnali from a historical perspective. The political-economic perspective developed from historical analysis has also been used to analyse contemporary socio-economic situation in relation to food production, availability and consumption patterns.

1.4. Methodology

This research involved several steps, which are outlined below:

1. Long-term changes in the food production system (crops, livestock, other household and local enterprises; production and productivity of different crops) and entitlement structure (own production, income, trade, exchange, social network and capital)

were studied using the information collected from secondary sources.

2. The present situation regarding food production, sources of food, change in food culture, access to food aid, impact of food aid, the vulnerability of the people, and their opportunities, constraints and aspirations was studied through a household questionnaire survey for a sample of 50 households representing different socio-economic groups in each of three districts covered by the study (Jumla, Mugu and Kalikot). These districts were selected because of the availability of resource persons to study these districts. Two of the other districts (Humla and Dolpa) could not be studied because of time and resource constraints.
3. Circumstances leading to food aid, its changing course and impact on food security were examined. Information was collected from district headquarters and Kathmandu regarding the food aid, quantities and price, decisions as to the quota, distribution practices and access of people.
4. Consultations with vulnerable people and local political representative about the distribution, access and transportation of food provided through government channels.
5. Consultations with people, traders and experts to identify the opportunities existing in the villages in these districts. Focus group discussions were organized in each district.

1.5. Organization of the book

The book has been organized into eight chapters. Chapter 1 discusses the general research problems. The approach taken for the study of food insecurity in Karnali and various theoretical ideas developed for the analysis of food security/insecurity situations are discussed in Chapter 2. Chapter 3 investigates the historical development of Karnali and the beginning of food security problems. The changing scenarios of livelihood strategies and problems of people in the face of socio-economic and political changes in Nepal and the

external world (especially India and Tibet/China) are the subject matter of Chapter 4. Based on historical evidence and secondary information, Chapter 5 provides explanations as to why food security problems have been persisting in Karnali. Chapter 6 deals with government responses (mainly in food aid) in dealing with the food problems in Karnali. The politics behind food aid policies and practices have been analyzed here. Chapter 7 discusses and analyzes the findings of a field survey done in three districts for understanding the situation in 2006–2007. Chapter 8 discusses the conclusions and possible ways to end the present food crisis in Karnali.

1.6. Karnali region and zone: A general overview

The research area concerned with this study is Karnali zone, which covers the five districts of Jumla, Mugu, Humla, Dolpa and Kalikot. But what is known of and as Karnali has also been changing according to changes in state regimes and lately due to administrative restructuring. In the past, Karnali kingdom (*rajya*) covered a wide area ranging from Trishuli in the east to Kumaon-Garhwal in west, and some parts of Tibet in the north. This kingdom got divided into 22 micro-states, one of the biggest being Jumla. Jumla more or less covered the present Karnali zone. After the administrative restructuring in 1962, 36 districts were created, and Karnali zone consisted of four districts: Jumla, Humla, Mugu and Tibrikot. In 1972, Dolpa district was created and placed under Karnali zone. The discussion in this book is confined to the recent administrative boundary of the Karnali zone. But the discussion on historical incidents covers the whole Karnali *rajya* or Karnali region (see maps).

Karnali zone is located in the north-western part of Nepal occupying about 30 percent of the area of the upper reaches of Karnali river watershed. The Karnali river, a major tributary of the Ganges in India, drains about 42,690 sq km north of Chisapani, after which the river cuts across the Churia range and enters into the

Gangetic plain. About 46 percent of this watershed is drained by two of its tributaries, Seti and Bheri rivers. About 11 percent of this watershed is located in Tibet, which is covered by Humla Karnali and a small part (2 percent) is covered by Langu Khola in Dolpa district (Bishop 1990: 16).

Karnali zone, which is located in the upper reaches of the Karnali river watershed, is filled with tall mountains and small valleys between the mountains. The topography and geology of the region is also complex. Geographically, the zone can be divided into two eco-zones: high mountains and high places (*leks*), and river basins.

The mountains of Karnali consist of Himalayas and high mountains (of the Mahabharata range). The Himalayas run here, as in other areas of the country, west to east. But here they do not make the northern border; they run through the middle of the region. The Himalayas that run from east to west are Kanjiroba and Sisne. Saipal Himal run from west to north and meets the Himal spreading east to west. These are all extensions of the Dhaulagiri Himalayan range. The gaps between the high mountains are generally small and are filled by water melted from snow/ice of the mountains. Therefore, there are several small lakes in the Karnali region. In many places, the gaps between the mountains are slightly larger, and they appear as plateaus, which are called *patans*. There are also several *patans* in Karnali, which are used for grazing animals, especially in summer (Manandhar 2028 v.s.).

Another important landform of Karnali is the rather wide river valleys, which are made by rivers cutting the sides of the hills and mountains. The land is fertile in such places, often called basins, and they host major settlements of the region. Among these basins, Tila river basin, Sinja river basin and Mugu Karnali basin are well-known. These are also the places where the population density is high. Otherwise, the population density is very sparse in Karnali zone as a whole. These basins have alluvial soils created by floods. The alluvial fans formed by tributaries in the river basins are the major settlement areas. For example, the headquarters of Jumla district, Khalanga

(Chinasim) is located in the alluvial fan formed by the Jugad river when it meets the Tila river. Irrigation channels have also been made in these river basins by the people through their traditional co-operative organizations. Despite large area and low population density, availability of cultivable land is extremely low in Karnali. It is estimated that only about 1 percent of the geographical area of this zone is cultivable.

Because of the high Himalayas and mountains, the climate is generally cold. The high altitude areas are permanently covered by snow. Even *leks* (high places) are covered by snow at least for six months. The summer starts from May and winter starts from October. Rainfall is comparatively low and it occurs in two seasons. The main rainy season is the monsoon. Rain occurs in the summer months, mainly July and August. The annual rainfall varied from 674 mm to 1050 mm in a decade of the 1990s (Regmi, 1999). About 80 percent of the rain occurs in these two months. There is also winter rain (about 150–170 mm). The onset and recession of monsoon and distribution of winter rain are quite erratic and cause moisture stress to the crop (Whiteman 1979). Therefore, production varies a lot from year to year in Karnali. Karnali as a whole is also a partial rain shadow area, and therefore rainfall here is comparatively low as compared to the eastern mountains. The climate in the northern parts of Humla and Mugu is alpine, in the middle and southern part it is temperate, and in the south-west region it is warm. Altitudes and slopes have a strong effect on temperature and agro-climatic conditions. The south-facing slopes receive more sunlight as compared to north-facing slopes. Therefore crop production practices and production and productivity of crops also vary by the aspects of the hill slope. Generally southern slopes are considered better for settlement and crop production.

There is also wide diversity in the presence of flora and fauna in the region. At high altitudes, medicinal herbs grow abundantly. This has also become a source of income for the people living in these areas. The forest is generally coniferous forest dominated by pine

trees. At lower altitudes, some tropical fruits are also grown. But temperate fruits like apple, peaches, plum, etc. are more common.

Table 1.4: Population in different districts of Karnali zone in 2001 and caste/ethnic group composition.

Caste/Ethnic Groups	Dolpa	Jumla	Kalikot	Mugu	Humla	Karnali
Total population	30,049	43,426	41,757	90,504	106,555	312,291
Percentage distribution according to caste and ethnic groups						
Caste	59.80	98.03	95.07	86.08	83.32	87.44
Chhetri	47.61	68.79	36.86	61.30	63.40	61.42
Bahun	2.65	9.54	27.49	4.36	6.28	8.16
Dalit (Dum)	8.49	15.31	29.24	19.46	12.92	15.56
Others	1.05	4.39	1.48	0.97	0.73	2.31
Ethnic groups	40.20	1.97	4.93	13.92	16.68	12.56
Magar	13.15	0.15	3.10	0.18	0.24	2.01
Tamang	1.07	0.68	0.23	2.86	0.81	1.12
Gurung	22.62	0.18	0.13	0.07	0.06	2.96
Sherpa/Bhote	2.17	0.56	0.00	10.16	15.37	5.89
Others	1.18	0.39	1.48	0.65	0.20	0.57
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: CBS 2003.

A major proportion of the population (87 percent) consists of caste Hindus, which includes Brahmins, Chhetris, Dalits (Dums) and a few others. Among the ethnic groups (not belonging to the Hindu fold in general), Bhote are prominent. Caste groups generally live in the lower altitude areas and in river basis. These people are generally called as 'Khas'. Therefore, the areas inhabited by these people are also called Khasan. Khas people (or Hindu people) in general practice farming combined with seasonal trading and out-migration. The Bhotia people generally live in high-altitude areas and share common cultural practices with Tibetans. They are also called 'Jads', and the area they occupy is called Jadan. Trade (generally mobile) is the basis of their livelihood, and generally their living conditions are considered better than their Hindu counterparts. The problem of caste and gender discrimination is extremely high in the lower region (Khasan). The category of Jadan and Khasan is based more on local people's

own mapping or cognition and there is a no clear geographical (or administrative) boundary to separate these regions. The settling of different groups of people in Karnali region/zone in different periods has been discussed in the next chapter too.

The population in different districts of Karnali and the caste/ethnic group composition as revealed by the 2001 census has been presented below (Table 1.4). This table clearly explains the population structure in Karnali according to caste and ethnic groups.

1.7. Karnali weather: high variability[8]

It seems that Karnali region as a whole faces more droughts and hailstorms. Other extreme weather patterns in wind and snowfall cause problems in crop production. This is also responsible for various diseases for the people as well as crops and livestock. For example, there was hailstorm in 2006. There is drought in 2008. In June (2007) which heralds a peak summer season, there was a heavy snowfall. In 2008, there was also a disease called blast in paddy, which caused heavy damage in Sinja (Jumla) area. Looking at the distance past, people in Jumla remember that there were famines and hunger deaths in 1960, 1963, 1968, 1972, 1975 and 1996. These events must be big as they are still in the memory of people. Therefore, weather variability could also be considered as one of the causes of famine and other health problems in Karnali region. Why this weather variability has occurred and whether this has severe impact on people need to be analyzed, which is not within the scope of this book. Certainly, these events may not adversely impact people in societies which have good material and technological bases to ward off the impacts of variability in weather. But in societies of Karnali, these natural events may have more impact in the absence of technological development and low living standard. Traditional coping mechanisms may not be sufficient to deal with these emerging problems.

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[8] Information contained in this section comes from meteorological officer Dibyalal Nepal, who has been working as officer-in-charge of the meteorological office in Jumla since 2030 v.s. (1973).

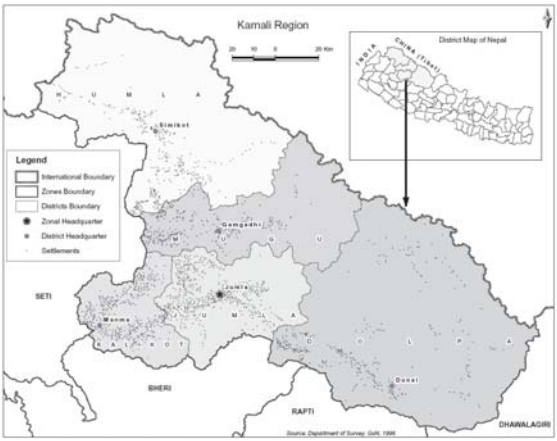
Karnali belongs to a dry belt. In all dry belts in Nepal, climatic or weather variability is very high. In Karnali, monsoon rain that starts from Bay of Bengal reaches here late and do not carry much rain. Therefore, there is late and small rain. Moreover, the physical location and wind patterns lead to variability. In winter, it gets rain from western winds, which starts from bay of Bombay, which is also variable. If there is high pressure here due to westerly disturbances (e.g. snowfall in Kasmir), the rain stays there in Pakistan and Afghanistan.

There has also been rise in temperature. For example, in Jumla, in 1973, the minimum temperature used to be -15 degree Celsius, and maximum would be 31 degree Celsius (in June/July). Now (2008) with the growth in population and settlements, minimum temperature is only -8 degree Celsius, and maximum goes around 31 to 32 degree Celsius.

Karnali gets south westerly winds. Generally, the speed of wind starts to increase from March. In April and May, it reaches to about 30–35 nautical miles per hour. This speed wind blows away the flowers and buds of apples and pear trees. Not only that, hailstorm is also common in the region. Such problems like wind and hailstorm have adversely affected the production of fruits.

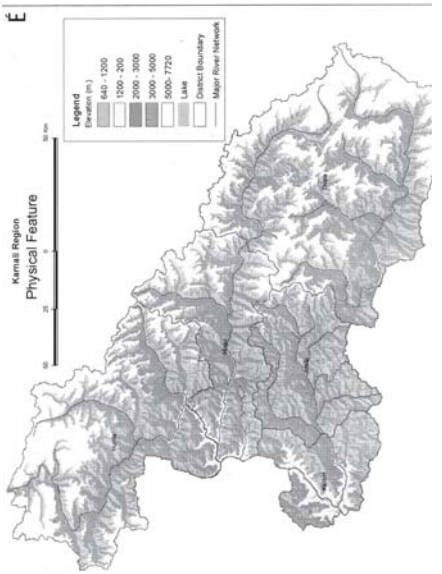
The variability in weather could also be the result of climate change. The analysis of the impact of this process and the reasons for weather variability are not within the scope of this study. But people feel that the area is gradually warming up. The snowfall is declining rapidly. The snowfall used to be as high as 6 feet every year in Jumla, and it used to occur more frequently. But now snowfall is hardly 3 or 4 feet, and it is also less frequent. As a result, dryness is growing, and drought has become more frequent. Irrigation channels have now become dry. There is also difficulty in getting drinking water in the villages because of the increased dryness. There is a need of further analyses as to how these natural disasters are expanding and what causes them to occur, which however, is not within the scope of this study.

Map 1.1: Political map of Karnali



Source: Department of Survey, GoN, 1996

Map 1.2: Physical Map of Karnali



Source: Department of Survey, GoN, 1996