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South Asia Regional Coordination Office

Swiss National Centre of Competence in Research (NCCR) North-South

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## Abstract

*This chapter examines the food security situation in Nepal and the impact of the recent armed conflict on the food security situation. To begin with, the chapter discusses how food security or insecurity is understood in developing countries, in general, including in Nepal, specifically. The approaches used to analyse food security, particularly during times of crisis induced by civil war or violence leading to an increase in the risks associated with different aspects of food security (i.e., availability, access, utilisation and stability), are also briefly discussed. This chapter argues that food security is understood in different ways and that definitions have changed over time, as these definitions are influenced by different factors – both subjective and objective, and domestic and international. Our understanding of food security has also influenced, as in recent times in Nepal, policies and actions related to food security. Moreover, there has been difficulty in developing approaches to the investigation of ‘food security’ or ‘insecurity’, especially during times of crisis. The armed conflict in Nepal has made people vulnerable in different ways than previously, and the factors that determine vulnerability change frequently, making it difficult to define vulnerable groups and target them. The armed conflict has, generally, made the food security situation in Nepal worse, where both internal and external policies and practices had already made the situation precarious. Based on the analysis, some recommendations are made as to how to improve the food security situation in times of conflict, during normal times and in the context of globalisation.*

## 4.1 Introduction

Nepal, an agrarian country, with a population of about 26 million in 2007, used to produce sufficient food at the aggregate level until the early 1970s, even though cases of food deficit and malnutrition were reported in the hills and mountains. The lack of infrastructure, mainly roads, connecting food producing areas like the plains in the south (Terai) with the hills and mountains, has affected the distribution and availability of food in many hill and mountain villages. Mountain regions, to a

large extent, and hill regions, to a smaller extent, have been food deficit. The deficit was particularly high in the Mid-Western and Far West Development Regions of Nepal. The special trading practices (north-south trade involving Tibet, the mid hills of Nepal, the Terai region in Nepal, and India) ingrained in the local culture, which were developed to adapt to local ecological systems, had helped the local people to secure food. However, these practices have been largely eroded due to socio-economic changes, and particularly by restrictions in trade with Tibet. There have also been changes in people's food habits and increased dependence on food aid. The Karnali region, which is located in the mountains of the Mid-Western Development Region, suffered hunger deaths in 1997 when about 1400 people died due to famine. Food crises are still reported from time to time in this region. The Karnali is also the region that suffered the most from the armed conflict, which adversely impacted on the food security of this region. Urban areas were less affected by the armed conflict than rural areas. As a large number of people (almost 84%) live in rural areas in Nepal, the conflict had an impact on a large proportion of the population. Almost all village development committees (VDCs) suffered in one way or another from the armed conflict.

The armed conflict in Nepal started in 1996, when the Communist Party of Nepal (Maoist) [CPN (M)] resorted to armed struggle to bring about change in the political system. The Government also used the army to control the armed struggle of the 'rebels'. This so-called 'counter-insurgency' also created many problems for the people. In a way, the people were caught between the two armed struggles – that of the rebels and that of the Government. Many people lost their lives during the conflict (approximately 13,300 people). There were also frequent disruptions to transport; frequent strikes, *bandhs* (forced temporary closure of businesses and schools and the restriction of movement by vehicle) and blockades; the restriction of the movement of goods and commodities including food and people; the internal displacement of people (IDPs) and their mass out-migration from Nepal to India; and the destruction of property and infrastructure of the people, communities and the state. The other cost of the conflict is delayed development. Funds that could have been used for development were spent on the army and weapons. As a result, the budget for security has increased tremendously. For example, the defence or security budget was only NRs.5.16 billion in 1998/99, but increased to NRs.19 billion in 2003/04.

The overall impact of the conflict on food security is analysed in this Chapter, even though the conflict ended after the political revolution (Jana Andolan II) in April 2006. 'Conflict', for the purpose of this chapter, refers to the armed conflict between the CPN (M) and the Government from 1996 to 2006. This conflict was not only characterised by differences in the interests and objectives of different

groups, but also by the violence unleashed by CPN (M) in the name of people's revolution, and by the Government in the name of counter-terrorism. This violence was mainly responsible for the adverse impact on the livelihoods and food security of the people. In this chapter, the term 'livelihood security' is used to refer to overall security in the means of securing sustenance (including food and other basic necessities), whereas 'food security' mainly relates to the different dimensions of food as a basic need (see below for further explanation).

## 4.2 Understanding food security

There is no common framework for understanding food security or insecurity. There is even more disagreement with regard to what action and approach to take to mitigate food insecurity problems. The approaches of different organisations and institutions to food insecurity seem to depend on various local, national and international factors including philosophy regarding the role of the market or trade, political and human rights, ecological sustainability, and national sovereignty with regard to food and food production, as well as larger political-economic interests. In the 1960s and 1970s, food security was understood more generally as the ability of a nation to meet its aggregate food needs in a constant manner. Accordingly, countries used to develop food balance sheets showing the aggregate supply and demand or requirement based on food requirement norms (like 180 kg food per capita per year in the past, and 200 kg now – this was particularly so in Nepal). The World Food Conference in 1974 identified sufficient food production, reliable supply and less fluctuating prices as crucial for meeting food security. Accordingly, technologies introduced with the green revolution, which contributed to increases in production, were emphasised to improve food security in developing countries. It was believed that the market will regulate supply and prices once food production has increased sufficiently. In the 1980s, with the seminal work of Amratya K. Sen (discussed below), which emphasised entitlements or access to food, the approach to food security shifted towards the 'demand side', i.e., providing individuals access to food through the market or social/political mechanisms. Lately, some concerns have also been raised by economists with neo-liberal principles over placing re-emphasis on the supply side (i.e., the production of food and productivity of resources). They have also focused on the role of technology. As a result, technology like genetic engineering or other forms of bio-technology have been promoted and used by multinational companies to increase the food supply. At the same time, social activists, mainly from developing countries, have expressed concerns about food safety and about the right to adequate food, right to feed oneself, the need for developing countries to have food sovereignty (i.e., control over the food chain so

that they can make independent decisions on how to best meet their food security needs) and cultural suitability. Increased integration of different nations' economies associated with the processes of globalisation, as well as new international trade institutions, agreements and policies, such as those promoted by the World Trade Organization (WTO), have given rise to these new concerns. These concerns have also been vital in shaping the food security policies in developing countries, including Nepal. After the political revolution of April 2006 in Nepal, civil society activists have focused on the right to food and food sovereignty. These rights were enshrined in the Interim Constitution of 2007. In line with this, Nepal's Three-year Interim Plan (2008–2010) has, for the first, included a chapter on food security. There are numerous definitions of food security, and the definition has changed over time and with changes in approaches to food security. Two definitions are given here that are influential in devising policies in developing countries.

*Access by all people at all times to enough food for an active, healthy life (World Bank 1986).*

*Food security means that food is available at all times; that all persons have means of access to it; that it is nutritionally adequate in terms of quantity, quality and variety; and that it is acceptable within the given culture. Only when all these conditions are in place can a population be considered 'food secure' (FAO, <http://www.fao.org>).*

Of these two definitions, the Food and Agriculture Organization's (FAO's) definition seems more comprehensive. It focuses on four key components: availability, access, utilisation and stability. FAO considers these as the four pillars of food security.

#### 4.2.1 Availability

Availability refers to the possibility of feeding oneself (individual, household or other units) either directly from productive land or other natural resources, or through distribution, processing and marketing systems that can move food from the site of production to where it is needed. At the international level, there is sufficient food available to feed about 6 billion people (Lappe et al. 1999). All nations can achieve and maintain a sufficient food supply for their population through domestic production, imports or a combination of both (Ibid). Hence, for sufficient availability, proper policies are needed regarding the production, distribution, processing and marketing of food. In Nepal, lack of infrastructure and marketing information and support, especially in the hills, often places constraints on the availability of food. The decade-long armed conflict has also led to increased food deficits, especially in hill and mountain districts.

#### 4.2.2 Access

Access refers to economic and social access to food or purchasing and/or the food-gaining capacities of people (which include food prices in relation to wage rates, income opportunities, and social networks that provide food during times of distress, traditional safety nets, etc.). Each household/individual should have access to food. Sen (1981) used the idea of entitlement and endowments to explain how a person can have access to food. According to Sen, food availability in the market does not guarantee people's access to food for consumption. Therefore, individuals and households only have legitimate command over foods and other commodities if they have entitlement to a 'bundle of resources' such as land, capital, technology, skills, stocks and income. Sen later used the term 'expanded entitlement' to include social networks, kin relations and the like that help in receiving food, especially during times of stress.

#### 4.2.3 Utilisation

Utilisation refers to the proper use of food, good food habits and the availability of culturally acceptable food. It also means the conversion of food intake into nutrition and into physical functions, which also depends upon other 'complementary factors' like safe drinking water, health protection and the like. Given that food is only valuable when it can be converted for bodily or metabolic use, its conversion into nutrition (utilisation) is essential. Therefore, it is important that each individual should have food utilisation capacity. Nutritional status (nutritional security) is an indicator of food security from the perspective of food utilisation. Another critical dimension of the utilisation aspect of food is food safety.

#### 4.2.4 Stability

Food security also means a sustainable food system (production, distribution, consumption and waste management) at all levels – from the household to the national and international levels, and at all times. Therefore, stability means a food system that is able to meet the basic food needs without much fluctuation. To reduce fluctuation, availability and access to food must be ensured beyond the level required for mere subsistence.

There are also other dimensions to food security, which are usually not discussed in the literature of international agencies like FAO and World Bank. These include the control over food chains (production, distribution, processing, marketing and consumption) by a few transnational companies, changes in consumption behaviour and the role of media, the erosion of traditional or indigenous knowledge, and gender dimensions in food security. Women play an important role in every

step of the food cycle in Nepal – from food production and gathering to food preparation and feeding. Women's lack of economic power at the household level and various socio-cultural taboos that deny women access to resources and a healthy environment mean that they face discrimination in access to food. For example, in Nepal, especially among the Hindus, women have to remain content with whatever food remains after all males are fed. They also have to follow difficult and torturous rules (e.g., staying in an animal shed while giving birth or during menstruation periods). These rules are still very common in the Mid-Western and Far West Development Regions, which suffer from food insecurity and malnutrition. Women in Nepal have ownership of only about ten per cent of the land holdings and about five per cent of the total cultivated land (Adhikari 2006a). The income of the household/family is generally controlled by males. This deprives women of their choice of food and from controlling food purchases. The media's role in changing food habits is also growing. Industrially produced food, which is often less nutritious in comparison to its price, is becoming popular (Adhikari & Ghimire 2006). For example, this can be seen in cases where rural farmers exchange a litre of milk for a small packet of biscuits or a bottle of Coca-Cola. The change in food habits is also considered to be one of the reasons for the growing food insecurity in the Karnali region of Nepal, where, as discussed above, hunger and death have been reported from time to time. Because of the new food habits of the lower hills and Terai (e.g., the consumption of rice) introduced in this region, local foods are now not grown and new generations have lost traditional knowledge about these foods. On the other hand, rice is not generally grown in the Karnali region, mainly due to climatic reasons. Jumla of Karnali is an exception to this and rice is grown in Tila and Sinja river-valleys using a technology that requires strict adherence to time-bound farm practices, especially in the growing of seedlings.

Until the recent past, 'food production' was generally equated with 'food security'. The assumption was that if a country produced enough food (food self-sufficiency) it would meet its food security needs. This assumption has been invalidated, even though 'production' is one factor in the availability of food and food self-sufficiency is important for various political and social reasons. Several studies have supported this finding. Some of the critical food insecurity situations that have resulted in hunger, malnutrition and death have occurred in periods where food production was above average. Therefore, even though food production is considered a prerequisite for food security, it is not considered a sufficient condition on its own (Sen 1981; Watt 1983). These research studies also consider the larger political-economic situation affecting distribution, entitlement and access to food as causes of food insecurity. Other causes are the breakdown of traditional food security mechanisms by external forces (colonisers, liberalisation and globalisation) and the lack of new measures to replace them. This fact has led to the conclusion

that food security cannot sufficiently be examined only from a national perspective. Rather, one has to look into micro-level processes, encompassing the household level and, if possible, the intra-household level. The need to consider the intra-household level arises from the fact that the household is also a unit within which all forms of social injustice takes place. Discrimination against girls, women, elderly and the disabled is widespread in many developing countries. The predominantly patriarchal family system in Nepal, for example, creates such discrimination.

The new emphasis on 'access' to food has also led to changes in the measurement of food security. Now anthropometric measurements (like weight and height according to age, arm girth according to age), food and nutrition intake surveys (like food intake, calorie and protein intake, existence of symptoms of malnutrition like the protein-energy deficiency symptoms seen in cases of stunted growth), and socio-economic surveys (to gauge food security in indirect ways using various proxies like poverty, real wage rate relative to food prices, employment and demand on emergency food supply situations and the like) are also used to examine the food security situation. These measures usually measure the short-term crisis in food. But for 'security', which means a secured feeling of availability and access to food, a long-term perspective is necessary. Security also requires a lack of vulnerability in the long run. Therefore, vulnerability analysis is important. In this chapter, the food security situation in Nepal is examined from the above perspectives.

#### 4.3 Vulnerability, access to resources and livelihood security: The political economy

As discussed above, sustainability and availability (i.e., stability in availability and access) are key components of food security. Because of this 'sustainability', the concept of 'vulnerability' has become important in the analysis of food insecurity. Individuals and households or communities and nations should not be vulnerable to food security. Freedom from fear of going hungry is also one of the criteria of food security, and, if there is vulnerability, fear will increase. This is also a condition of food insecurity. Because of the long-term focus, the livelihoods of individuals or households should be improved for sustainability in food security. 'Food First' programmes (programmes aimed at meeting nutritional requirements in the short term, without considering food production aspects), such as vitamin A programmes, food programmes for children and women, and food-aid in crisis programmes, which are generally implemented to improve the nutritional intake of women and children, provide only short-term solutions. Such programmes can be considered as an immediate form of food security, which, in fact, is not food security at all, because security requires a long-term perspective. But, unless livelihoods in general are improved, food security is not secured.

The term 'livelihood', as will be discussed below, refers to the different dimensions of securing sustenance. A secure and sustainable livelihood is considered to be a sufficient and necessary condition for food security. Therefore, food security depends on individuals and households having a reliable and sustainable source of livelihood. In line with this approach, the World Food Summit in Rome in 1996 emphasised the sustainable management of natural resources, elimination of unsustainable patterns of consumption and production, and equality between men and women as essential conditions for food security.

As livelihood improvement is an essential condition for food security, it is essential that its components are discussed, particularly the reasons for vulnerability. Livelihoods are generally defined as the means for living or sustenance. Blaikie et al. (1994, p 5) define livelihood as the "command an individual, family, or other social group has over an income and/or bundle of resources that can be used or exchanged to satisfy its needs". A livelihood is sustainable if it can bear the weight of present activities for a long period without compromising future prospects. The opposite way of looking at livelihood security is the analysis of 'vulnerability', a condition that has been defined in various ways. For example, Chambers (1989, p 1) has defined vulnerability as "the exposure to contingencies and stress, and difficulty coping with them". He goes on to say that "Vulnerability thus has two sides: an external side of risks, shocks, and stress to which an individual and household is subject; and an internal side which is defenceless, meaning a lack of means to cope without damaging losses" (Ibid). According to Blaikie et al. (1994, p 9), vulnerability describes "characteristics of a person or group in terms of their capacity to anticipate, cope with, resist and recover from the impact of natural hazards". In essence, vulnerability arises from two main factors – risk in securing the assets and capacities required for a livelihood and inability to cope with that risk. The risk could arise from various factors like natural hazards, market failures, a decline in the price of commodities sold, an increase in the price of commodities purchased, personal loss in the family, health problems in the family, loss of employment or wages, and the like. A decline in social insurance or safety nets provided in the society, on a traditional or formal basis, can be another cause of vulnerability.

There is, generally, a lack of theoretical basis for vulnerability analysis, despite some attempts by a few scholars. Bohle (1995) and Watts and Bohle (1993) have developed a three dimensional approach for mapping the space of vulnerability. They argue that the space of vulnerability is formed by three co-ordinates – risk exposure, coping capacity, and recovery capacity. Each of these co-ordinates has three dimensions – endowments, political ecology and empowerment. These dimensions are in a way linked to the political capacity to secure access to resources or the influence required for securing resources (from the society or the

state). Two models developed by Blaikie et al. (1994) to explain the vulnerability of a particular individual or a household also centre around 'political power'. In the Pressure and Release (PAR) Model a disaster is located at the intersection of two forces – processes generating vulnerability and physical exposure to hazards (Blaikie et al. 1994, pp 90-91). The forces or processes generating vulnerability are rooted in the socio-political and economic structure of the society. The root causes of vulnerability (which reflect the distribution of power in a society) put people in unsafe conditions. It is generally the powerless (economically, politically and socially) who are pushed into such unsafe conditions. When the hazard or accident takes place (e.g., drought), they are the ones who suffer the most as they are in the unsafe or hazard-prone situation. Moreover, these people lack the assets to cope with hazards and recover from them. Another model, called the Access Model (Blaikie et al. 1994) focuses on the way that unsafe conditions arise in relation to the economic and political processes that allocate assets, income and other resources in a society. The 'access' of an individual to resources is determined by political-economic processes and is linked to the social relations of production, gender, ethnicity, status and age. The Access Model takes into account the dynamic situation of the society, and, thus, is more capable of explaining the access position of households and their vulnerabilities. Concepts like FAD (food availability decline) and FED (food entitlement decline) (Dreze & Sen 1989), which are used to explain food insecurity and famine/hunger, are also linked to access. As the concept of entitlement includes production-based entitlement, trade-based entitlement, own-labour entitlement, inheritance and transfer entitlement, and other forms of expanded entitlement (Dreze & Sen 1989, p 10), the study of food security should also be concerned with the food system or food chain. The food system involves not only the system of food production, but also the degree of access to land and inputs, the operation of markets, and the ways in which food is distributed, transported and processed, how prices are determined, and how traders behave. The importance of a political and economic perspective (Fig 4.1) in the analysis of food (in)security has also been pointed out by Seddon and Adhikari (2003, pp 5-15). They suggest that the most effective approach is the one that begins with an analysis of the 'historical political economy' of food production, distribution and consumption, which is capable of providing a broad framework for examining and exploring key issues of unequal food availability and unequal entitlement to food. The historical political economy is concerned with how social-political and economic structures are developed and how they impact on the formation and functioning of institutions and organisations. This also influences trends and shocks. The other major component in the framework is 'assets'. The historical political economy impacts on the claims and entitlements of an individual, household or group to assets, which, in turn, shapes livelihood (natural resource-based or non-natural

resource-based) strategies. These strategies then determine food security and insecurity. Seddon and Adhikari (2003) argue that “embedded within the political economy of food security should be a livelihoods analysis which enables us to appreciate the range of constraints and opportunities operating on the livelihood strategies of households and individuals, which, in turn, affect their ability to provide (or not to provide) a degree of security as regards access to food”. Here, conflict (such as the armed conflict in Nepal) can increase 'shocks' leading to a decline in claims and entitlement to assets of all types, including natural assets like land and forests. This increases food insecurity.

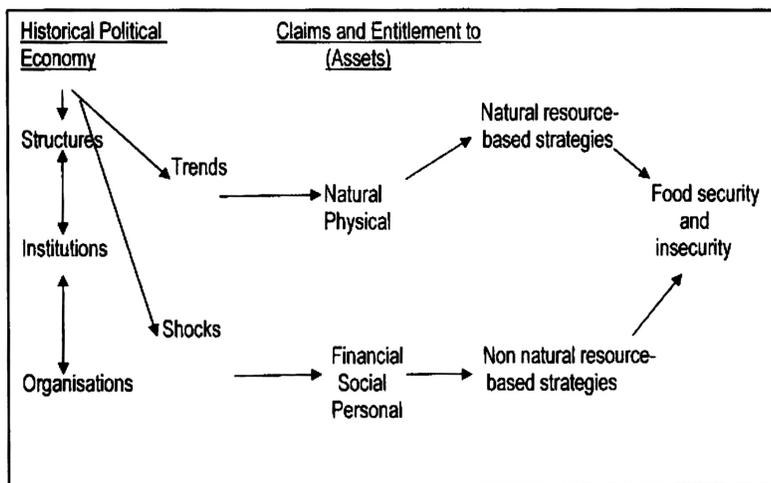


Figure 4.1 Framework of food production, distribution and consumption

Analysing food security from a household perspective, the possession of assets is crucial to food security. Swift (1989) divides assets into three broad categories: investments, stores and claims. Here, investments include human (individual and collective) assets; stores include food stores and items of value, such as gold and money in the bank; and claims are potential assets to be obtained from others (loans, gifts and other forms of support and assistance). Ellis (2000) identifies five sets of assets or capital: natural, physical, human, financial and social. He notes, tellingly, that human capital is perhaps the most crucial to the poor: “...it is often said that the chief asset possessed by the poor is their own labour” (p 33). In a very real sense, for each individual, the most immediate and precious asset is that of health and wellbeing. Significantly, in their analysis of food security and how hill farmers cope in Nepal, Adhikari and Bohle (1999a) agree that:

*[P]ersonal assets (health status, skill and physical power or fitness) and household composition were by far the most important factors in helping the households to cope with food deficiency. Other type of assets like land and forest were also found to affect food security, but their role was much less than that of personal assets and household structure. (p 16)*

The role of other factors like ownership of land and forest was low in food security because of the fact that land holdings are small and food self-sufficiency is low for most households, and because farming is difficult and labour intensive.

However, moving away from the individual and household level towards the community, regional or national levels, structural causes seem to be more important in food security. Claims and entitlement to food shaped by these structural causes also change as a result of changing power structures and definitions of eligibility. For example, a study conducted by Rural Reconstruction Nepal (RRN) and Action Aid Nepal (AAN) (2003, pp 33-34) has identified the following causes of food insecurity, which are, in general, linked to socio-economic, political and environmental factors (cited in Seddon & Adhikari 2003, pp 5-15):

- Socio-political structures, which effectively prevent the rural poor from having equitable access to productive resources and community assets
- Persistent degradation of natural resources and community assets
- Policies and institutions that exclude small/marginal farmers and women from the benefits of development and public services
- Caste, gender and class based exploitation, violence, discrimination and marginalisation, that limit the access of these social categories to education, health and employment opportunities, and other basic human rights and justice
- Imperfect mechanisms for the distribution of goods and services, nationally, regionally and locally
- Low purchasing power of the majority of the population
- Gender discrimination in general
- Limited recognition of food security needs
- Lack of commitment on the part of governments to implement appropriate changes

During periods of conflict, the analysis of the political economy is important. The political economic perspective helps us to understand the 'claims and entitlement' structure. As the power relations change during periods of conflict, the entitlement matrix will also change. For example, the seemingly wealthy people who had more assets before the 'conflict' in Nepal were considered class enemies and displaced. Similarly, others not directly supporting the rebels were also displaced. As a result,

their entitlement to food declined and they became vulnerable. Therefore, as explained above, conflict increases the shocks or risks to entitlement for certain categories of people, which can be poor as well as wealthy, placing them in a vulnerable position. A common approach to the study of livelihood security has been the Sustainable Livelihoods Framework (SLF) used by DFID (<http://www.livelihood.org/>), even though the approach has been criticised as inadequate for understanding vulnerability in a conflict situation. This approach (see Figure 4.2) is an analytical tool for understanding people's livelihood strategies as shaped by interactions between livelihood assets, vulnerability and transforming structures (institutions and processes), and for developing intervention mechanisms based on existing livelihood strategies (capacities).

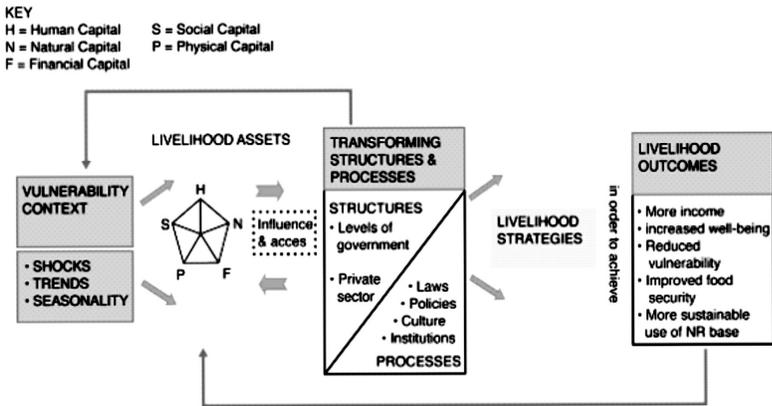


Figure 4.2 Sustainable Livelihoods Framework  
 Source: DFID, <http://www.livelihoods@difd.gov.uk>

In this model, five livelihood assets (physical, natural, social, financial and personal) are considered central, but they need to be analysed in terms of the vulnerability context and transforming structures. The interaction of these three components shapes livelihood strategies to achieve the livelihood outcome. This tool is also used for research, evaluation, policy analysis and development. It is not a new approach, with its origins in the early 1980s at the Stockholm Conference on Environment and Development. It uses the key concepts discussed above, but integrates them in a simplified model. The focus of the framework is to improve livelihood strategies and the long-term viability of those strategies. This approach also puts people at the centre of the analysis and considers that their asset position is important when exploring options open to them. The other components of the framework are transforming structures and processes (now termed the 'rules of

game' (<http://www.livelihood.org/>), livelihood outcomes and livelihood strategies. By analysing the assets and institutions and processes it is argued that one can link the micro-level situation with the macro-level policies.

By analysing food security situations during conflict (as is done in the later section in the case of Nepal), one can find various weaknesses in this approach for explaining food insecurity and in devising targeting mechanisms. For example, the approach is more concerned with the individual situation and is depoliticised, as it mainly aims to identify the efficient management of assets of the targeted people without much emphasis on the context or the circumstances. It also sets limits on the inclusion of factors to be considered and the relationships between these factors. The approach emphasises the role of social agencies, but undermines the role of the larger political economy. For example, the conflict in Nepal has its roots in unequal political-economic structures set by social relations among the variables of caste, class, region, gender, and so forth (Thapa & Sijapati 2003). Which factors are more important and how their importance changes over time cannot be analysed using DFID's Sustainable Livelihoods Framework. Similarly, the threat to food security by globalisation and the control of food chains by a few multinational companies is not explained very well by this approach. The external environment like agricultural subsidies from developed countries and the use of political and economic power by developed countries in negotiations (e.g., negotiations by the WTO) are affecting agriculture in developing countries. These are the main factors in determining how developing countries meet food security needs and in generating a situation of food insecurity. Even though these are major events or processes, they are narrowly included under the vulnerability context. For example, the international context affecting food production caused food prices to increase in 2008, leading to food riots in the Philippines and in some African countries. Such global socio-political and economic structures and their impacts are not explained by this framework. The opportunities available at the global level are also not explained by this model. The role of culture and traditions, like changes in food habits, which has caused severe food security problems in the Karnali zone, is also important. Such changes are also taking place at an increasing rate among young people in urban areas. DFID's SLF has no specific place for these cultural aspects, but deals with them as part of the vulnerability context.

The 'livelihood approach', as used in SLF model, does have some advantages in analysing food security. For example, Young et al. (2003) argue that the livelihood approach is useful in understanding short-term as well as long-term food security/insecurity. In this approach to food security, the severity of food security is gauged by its impact on people's ability to feed themselves in the short term (risk to lives), and on livelihood and self-sufficiency in the long term (risk to livelihood) (Young et

al. 2003). The risk to lives can be understood by studying the food consumption pattern. If there is significant change in the major exchange entitlement to, or sources of, food, and if this impacts on the nutritional status of people, then we can say that there is risk to lives requiring immediate attention from the state and responsible agencies and individuals. Risk to livelihood is understood by studying the vulnerability, risk and coping strategies of the livelihood groups, i.e., people adopting different means for their sustenance. In essence, the livelihood approach helps in “finding out the food availability, ability of people to feed themselves and how different groups of people gain access to food, risk to lives and risk to livelihoods” (Young et al. 2003). Conflict increases these risks.

#### 4.4 Conflict, livelihoods and food security

The livelihood approach became popular after Sen's study of famine (discussed above). Sen considered that the exchange entitlement (or the livelihood sources) reflects the ability of the individual/household to acquire food. The livelihood of a person is a combination of exchange entitlements. Risks to livelihood occur when there are vulnerabilities, threats and a lack of coping mechanisms. Various risks can erode exchange entitlements, as discussed above. This can lead to a reduction in sources of food and an inability to make up the difference or deficiency, malnutrition and the over extension of coping abilities leading to the destruction of livelihood assets. Then the real case of food insecurity occurs requiring immediate help in the form of 'food aid'. If food aid is required, then it is necessary to understand the following things: How much food aid is necessary and what type of food? Who needs food aid and why? How long food aid is required and the point at which the need for food aid is reviewed? Whether or not there are locally available resources and capacities to transport, store and distribute food? In a conflict situation, it is difficult to identify the target group based on the SLF approach as vulnerability conditions can vary for different groups. Even the wealthy and those with enough livelihood assets can become food insecure if their entitlement to food declines. Moreover, during periods of conflict, it is difficult to physically provide food aid; food meant for the target group can end up in the hands of the groups causing the food shortage.

The entitlement approach that is central to livelihood analysis and to understanding famine or food insecurity, gives little attention to conflict, violence and political factors. Sen (1981) views famine and food insecurity as economic disasters. The impact of conflict and violence are not examined because Sen's analysis is of the exchange entitlements that take place within the legal regime. However, during periods of conflict, this legal regime is ineffective, and food is illegally and forcefully transferred from one group to another (Young et al. 2003). As violence and food

insecurity are closely associated, one cannot dismiss violence (caused by conflict) as something illegal. This political vulnerability is not adequately dealt with by Sen's (1981) analysis. During periods of violence and conflict, food transfers take place from one group to another, but are outside the legal boundaries. Even though the livelihood approach, and, in particular, the SLF of DFID, has been refined to take into consideration crisis situations (such as drought in Africa), it has some limitations when analysing food insecurity during periods of conflict.

In general, there is still a lack of conceptual approaches for studying and analysing the impact of political instability or conflict on food security and livelihoods. The genesis and impact of conflict on food security in Nepal is not dealt with in detail here, only the conceptual approach to examining this impact is discussed. Generally, models of food security and livelihood analysis take political instability and conflict as a type of shock or stress, and, hence, see it in neutral terms. Seddon and Adhikari (2003, pp 10-15) argue that in any political conflict, like that of the Maoist insurgency in Nepal, there will be 'sides', and that there will be those who are directly and deeply implicated, and there will be those indirectly and less deeply implicated. This will have significant implications for the nature and distribution of effects and consequences – and, hence, for the differential impact on different social categories. This explains how the kind of conflict affects different social categories differently. From a theoretical point of view, a political insurgency or revolution like the Maoist insurgency should have direct adverse impacts on what they term as 'class enemies' or the 'ruling class'. Therefore, the components of the economy (like infrastructure) that have been beneficial to these people are disrupted. But there are also unintended consequences of any revolution, however pure the motives may be. The actions taken by the opposite parties (both supporters of the conflict and those who oppose it) in the conflict need to be analysed. Accordingly, the impact of the actions taken by the parties who oppose the conflict (in Nepal, the ruling class and the state and its security and administrative forces) need to be examined to determine how they have affected food security. In a way, those agencies opposing the conflict are also part of the conflict. On the other hand, although the parties supporting the conflict (e.g., Maoist insurgents) say that they are working for the food security of poor and marginalised people and communities, their actions can adversely impact on the food security of the people they want to help. Moreover, the actions of these insurgents also push previously food secure or well-off households (who the insurgents call 'class enemies') into a precarious position as these households are also obstructed from using their various assets. Therefore, the 'entitlement' approach is more suitable in conflict situations for analysing food security and identifying the target group. An understanding of this requires a political-economy perspective. As the power position changes, the use of livelihood assets may be disrupted with the aim of harming certain groups of

people. Hence, the entitlements of people shift considerably during periods of conflict. However, overall risks increase for all groups due to unintended impacts.

One common way of analysing the impact of conflict is to disaggregate the different components of food security as discussed above and then examine the impact on these components (see also Seddon & Adhikari 2003). The various components of food security include entitlements and claims (production, exchange, social safety nets and political support like government supply, which includes the transportation and storage of food) and how they impact upon availability, access, utilisation, acceptability, and adequacy of food and food systems. The approach of capital or assets may also be combined by analysing which assets are lost by an individual, household or community due to conflict. In general, conflict may have an adverse impact on food security in the following ways.

- Food production may decline.
- Exchange entitlement to food may decline.
- Overall physical availability of food may decline.
- Access to food may decline.
- Political claims on government or public resources (like food supply and medical services by the government, NGOs and other agencies) are reduced.
- Overall capacities, and, especially, the personal assets, of individuals and families may decline due to malnutrition and injuries caused by the conflict.
- Lack of security generally, combined with food insecurity, can also lead to large-scale internal displacement and involuntary migration within Nepal and to India. These displaced people are not able to use their assets (like natural resources such as land, forest, water and so forth) for food-security related activities.

These are also the ways in which food security has been impacted in Nepal, and will be discussed in more detail later on.

#### 4.5 Food security: A basic human right

Increasingly, food security is seen as a basic human right, and as a means of achieving other human rights. In 1953, the United Nations specified twelve elements for 'living', of which, food, nutrition and food security were the main elements (see Adhikari 2004). This is now being advocated mainly by NGOs and INGOs. Food security is considered a part of people's economic rights. 'Freedom from the fear of hunger' is basic to all political and social freedoms of individuals. Considering food security from this perspective, it is the obligation of national governments

and international agencies to provide adequate food for the people. However, this has not been the approach of most of the bilateral and multilateral agencies like the World Bank. These agencies still subscribe to the idea that the market regulates food availability and ensures 'food security' to the people. On the other hand, these agencies still focus on the 'production' of food despite the fact that the world has more than enough food to feed its population. Bio-technology, including the production of genetically modified organisms (GMOs), has been promoted with the aim of producing more and nutritious food. However, this technology and the current free trade in agricultural products have led to the increased control of multinational and transnational companies (MNCs or TNCs) on food production and the consequent decline in food security and food production at the household (farm) and national levels in poor and developing countries (ActionAid 2005). This is also illustrated in Table 4.1.

There has been a decline in the share of developing countries in the international food trade in the last 30 years. They have become net importers of food, and their imports are increasing (FAO 2001). The price of the food stuff they export has been declining and fluctuating, creating hardships. As a result, their income, which could also be used to pay for food imports, has been declining. The increased control of the food system by a few multinational companies is creating a crisis in food security. The existing neo-liberal policy initiated in World Bank circles in the 1980s, and the other policies linked to that, represent the main political economic sphere worldwide; this has helped multinational companies to expand their tentacles around the world.

**Table 4.1 Concentration of corporate power: Control of top 10 companies of world market share (in 2005)**

Sector	Top 10 companies (in descending order of economic power)	Control over market share (by top 10 companies)
Pharma	Pfizer, GlaxoSmithKline, Sanofi-Aventis, Johnson & Johnson, Merk & Co., AstraZeneca, F. Hoffman-La Roche, Novartis, Bristol-Meyers Squibb, Wyeth	59% market share of world's 98 drug firms
Animal Pharma	Pfizer, Merial, Intervet, DSM, Bayer, BASF, Fort Dodge, Elanco, Schering-Plough and Novartis.	55% of the US\$ 20,255 million world's veterinary pharmaceutical market
Bio-technology	Amgen, Monsanto, Genentech, Serono, Biogen Idec, Genzyme, Applied Biosystems, Chiron, Gilead Sciences and Medimmune.	75% of the global market
Seeds	Monsanto (with Seminis), Dupont, Syngenta, Groupe Limagrain, KWS AG, Land O'Lakes, Sakata, Bayer Crop Science, Taikii, DLF-Trifolium, Delta and Pine Land.	About 50% of US\$ 21,000 million commercial seed market

Pesticides	Bayer, Syngenta, BASF, Dow, Monsanto, Dupont, Koor, Sumitomo, Nufan and Arysta	84% of US\$ 29,566 million global pesticide market
Food retail	Wal-Mart, Carrefour, Metro AG, Ahold, Tesco, Kroger, Costo, ITM Enterprises, Albertson's, and Edeka Zentrale	24% of US\$ 3.5 trillion global market
Food & Beverage Processing	Nestle, Archer Daniels Midland, Altria Group, PepsiCo, Unilever, Tyson Foods, Cargill, Coca-Cola, Mars Inc and Groupe Danone	24% of an estimated US\$ 1.25 trillion global market of packaged food

Source: Based on ETC-group (2005, pp 1-10)

To achieve food security, it is also essential that basic human rights are respected. In a place where there is no repressive regime, people can organise themselves and demand food or other basic facilities from the state. In such a place, the media can report on impending problems like famine. There will be public pressure to take decisions and steps taken to solve problems. However, these political actions are not possible in dictatorial or undemocratic countries. For example, famines have drastically declined in India since independence (Dreze & Sen 1990). The main reason for this, as argued by the authors, was the lack of political or public action taken during colonial times. Moreover, the colonial government destroyed the agricultural system and resource base that supported the food security of the people.

The growing realisation of the 'right' to food security has also been impacting on the policies of nation states, including Nepal. After the April 2006 revolution, social activists promoted the 'right to food' approach, in which the state is generally made responsible for protecting its citizens' right to food/food security. Generally, the state's role is to respect, promote and protect the right to food security of each and every citizen in the country. Accordingly, Nepal's Interim Constitution 2007 has enshrined this right and it is reflected in the Interim Three Year Plan (2008–2010) of the Government. This makes the Government of Nepal responsible or liable (theoretically) if there is any individual who is food insecure.

#### 4.6 Globalisation, food sovereignty and food security

Globalisation has made food security a complex problem. Its consequences can be seen in many different forms. Recent globalisation, aided by information technology and bio-technology, has led to the corporatisation of agriculture, which means the whole food chain has been increasingly controlled by the corporate sector. This has slowly destroyed local food systems. Firstly, because of globalisation, food systems have been increasingly controlled by TNCs (here TNCs and MNCs are taken interchangeably) through their direct control over resources like seeds and inputs (see Table 4.1) and through their farming (direct or through contracts) in

developing countries. Through this process, TNCs seem to control valuable resources like productive land and water. This production is targeted mainly at exports and cash income, which often compromises local food security. Secondly, the vulnerability of local farmers in developing countries is increasing as they are more exposed to, or affected by, the decisions taken in the world's city centres, which control information, finances and political power and which are also the seats of international organisations and TNCs. These agencies are not accountable for the adverse impact they create as they themselves do not bear the burden of their decisions (for details see Yamuna Ghale's chapter in Adhikari & Ghimire 2006 [2063 BS]). Different features of globalisation, like changes in food habits, the media and advertising, the development of technology, which favours the wealthy, state subsidies that support wealthy farmers and the corporate sector in a hidden manner, fashions and fads discouraging local products and the like, are also linked to the food insecurity of poor people. As a result of all these changes, the 'terms of trade' for products from the agricultural sector in developing countries are declining, as compared to those products from developed countries. In general, developing countries, including Nepal, have become increasingly dependent on developed countries for food. In particular, Nepal's dependency on India for food is growing. As the food brought from India is cheaper because it is subsidised, it is also contended that it has been helping the food security of the poor. However, this chapter argues that such a dependency is detrimental to food security in the long run. When global food prices increased in early 2008, India imposed restrictions on the export of food to Nepal. The restriction was imposed because of declining production and food shortages in India. This clearly demonstrates that dependency on other countries for food is not beneficial in the long run. Hence, the concept of 'food sovereignty' has been promoted, under which it is argued that a country should have the right to decide on the total food system and food security mechanisms. Total control over food production, resources (like seeds and inputs), processing and trade should remain within the country. Unless there is food sovereignty, the food security situation will not improve in a sustainable way. The focus on the right to food security must be combined with the right to feed oneself.

Globalisation has also led to the promotion of neo-liberal economic principles, in which the market is given a free hand and the larger corporate world is promoted. Under such policies, trade is expected to provide food security and the self-sufficiency of a country in terms of food production is not considered to be important. Most bilateral and multilateral agencies like World Bank, FAO and WTO now promote 'trade' as the main mechanism for meeting food security needs. As a result, liberalisation policies have been followed in the agricultural sector in Nepal, as is evident in the Agricultural Perspective Plan (APP). However, civil society, including NGOs and community based organisations (CBOs), now feel that trade

alone is not sufficient to ensure food security, and the concept of 'comparative advantage' does not hold good, at least not in the food sector, because it is related to people's lives. The following reasons have been put forward to argue against the principle that trade is the best way of solving food security problems.

- If a country depends on the international market for food, what will happen in a situation of war, accidents and artificial shortages created by businesspeople?
- Dependence on the international market for food means that people will lose the culture of farming and skills and knowledge about genetic and other resources (like seeds, terraces, irrigation, etc.). This culture or resources cannot be developed in a short span of time or when they are immediately needed.
- The world is divided into two main groups in terms of food trade: food exporting countries (a few developed countries) and food importing countries (mainly poor and developing countries, which are many and where a large part of the world's population lives). The ability of the later to produce food and export it has been consistently declining. The terms of trade for the products of these countries have also been declining. If this situation persists, these countries will become poorer and their food production capacity and food security will be further reduced.
- Food related local cultural patterns and biodiversity will be lost. The changes in food habits requiring food that is not produced locally will undermine food security.

For the above reasons, it can be argued that it is too risky for a country like Nepal to totally depend on the international market for food security. Internal food self-sufficiency is also important. Some of the components of the local food system that assist in increasing food security – like community control over resources, the production of a variety of foods within the home farm or community, easy access to seeds, an integrated and diversified farming system, cooperation within communities for resource management, and social safety nets – help to reduce vulnerability during times of crisis and increase food security (Adhikari 2000).

Globalisation is also affecting food security by creating employment opportunities in certain locations, for example, in urban areas, and in certain countries. As a result, people are increasingly moving to these locations. In Nepal, and other countries in South Asia, it is mainly the males that move out for such employment opportunities. The farming is then left in the hands of the women. As a result, the feminisation of agricultural is occurring. At the same time, the marginalisation

of women is also slowly growing as their control over the household economy is declining. The agricultural sector has also lost its vibrancy and productivity, further marginalising women. Women have become more disempowered than before in a real sense because society and families in rural South Asia now see less use for women in terms of economic rationality. This is one of the reasons for the declining population of women in areas (especially in India) where the green revolution has been successfully implemented. Dreze and Sen (1989) and Sen (2000) have written extensively on these issues in the context of India. How far this is happening in Nepal is difficult to analyse, but the tendency to migrate, internally as well as internationally, is also growing in Nepal. This migration is again male-specific. For example, the Nepal Living Standards Survey conducted in 2003/04 revealed that urban wages are higher than rural wages; hence, those who are able to migrate to urban areas have been able to reduce their poverty level (CBS 2005) (Thieme 2003). Food insecurity is one of the primary reasons for this migration. This is particularly true in the Mid-Western and Far West Development Regions of Nepal, from where there is a large movement of people to India for temporary and seasonal work. Migration to the Gulf countries and Malaysia is also growing due to both push and pull factors. This type of foreign labour migration seems to generate about NRs.75 to NRs.125 billion (US \$1 to 1.3 billion) in remittances annually (Adhikari 2005). How far such employment opportunities will sustain and be beneficial to the Nepalese people is yet to be seen. However, studies have revealed that the poor people, who have not been able to fulfil their food security needs, have also not been able to migrate for foreign employment (Seddon et al. 2001). They go to India, instead (Thieme 2003), where they also do not find many remunerative opportunities. Their strategy is, again, basic livelihood security, rather than an accumulative strategy.

Out-migration, which globalisation has made easy, may be taken as a way of solving problems related to poverty and food insecurity. Nepal also seems to have benefited tremendously from remittances. For example, the Nepal Living Standards Survey of 2003/04 reported that there has been a reduction in the poverty rate by 11 per cent in a period of 8 years (from 42% in 1995/96 to 31% in 2003/04), mainly due to remittances from formal as well as irregular migrants. But this study also revealed that the poorest 20 per cent of households have not been able to benefit from this opportunity as they lack the various resources (money, social networks and the like) to migrate for employment. Some of the poorest people may have succeeded in migrating to India, but they, in all likelihood, have not generated remittances as they are also marginalised there. A large proportion of migrants to India use all of their earnings just to live (see Adhikari 2006b). Moreover, reducing poverty may be one way to increase food security, as previously poor people can have income if they are moved out of poverty, which may enable them to purchase food, if not

to produce it. The other way to improve food security in a sustainable way is to develop a sustainable food system, in which everyone has access to healthy and culturally/individually suitable food. This food system may benefit from links to the global system, but, at present, globalisation seems to pose more problems than solutions. The provisions in the WTO and the present trend of TNCs and MNCs controlling various inputs and technology, the denial of farmers' rights in developing countries, bio-piracy, the commercial use of the resources of poor farmers, and so forth are posing problems for the development of sustainable local food systems.

Nepal became the 147<sup>th</sup> member of the WTO in April 2004. The Agreement on Agriculture (AoA) in the WTO is contentious with regard to food security and agriculture in developing countries. Nepal will also have to abide by the AoA, which limits the domestic support that a member can provide to the agriculture sector, except for some exceptions like 'Green Box' subsidies and support to low income resource-poor farmers. To date, Nepal has not been able to use the limit for domestic support to agriculture (i.e., the AoA provides that 10% of agricultural gross domestic product [AGDP] can be given as domestic support and Nepal gives only 1.3% of AGDP for this purpose); hence, there is an argument that this will not hinder agricultural development in Nepal (see ActionAid and SAWTEE 2004). AoA impacts can be seen in terms of the impacts and consequences of the opening of the domestic market, market access, and export subsidies. As 83 per cent of the population in Nepal are involved in farming for livelihoods, the question arises as to how to protect them from providing market access to products from other countries. Cheap imports of food (as there will be no barriers created by tariffs), in the absence of other meaningful employment or income earning opportunities, will endanger farmers' livelihoods. One can argue that Nepal can also benefit from market access in other countries; but there are so many other barriers (mainly non-tariff barriers like quality requirements) to access to markets in developed countries that Nepal has not been able to take advantage of this. The subsistence nature of farming in Nepal and lack of competitiveness is clearly a disadvantage in the new WTO context. This is one of the most crucial factors that will hamper Nepal and its food security in the future.

The overall impact of the AoA will be seen when the subsidies are removed from this sector in developed countries. This will mean increases in the price of food produced in developed countries, which will give developing countries such as Nepal an incentive to increase food production and sell it in the markets of developed countries. This will create employment and increase wage rates in the farming sector, which will also enable labourers to purchase food, even if food prices increase. However, this does not appear to be a likely scenario as there has been disagreement on this issue until now.

The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is another contentious issue within the WTO. TRIPS has violated many areas of farmers' rights in developing countries. Under intellectual property rights, the person or agency that develops a new idea (product, technology, etc.) has the right to use it commercially, and others must pay to use it. If this is implemented, developing countries and their farmers will have to pay to use technology (including seeds and other) developed in advanced countries or by any individual or agency. Moreover, some of the modern technology developed in agriculture, especially in relation to seeds and other inputs, comes from the traditional knowledge and resources (e.g., local seeds, genotypes or biodiversity) conserved by farmers for generations. This is a gross violation of their rights. It will also limit farmers' access to and ability to use modern technology and, as they are already dependent on these technologies, this inaccessibility will displace them from farming. As they do not have other opportunities for income or employment, their food security will be threatened. This is a violation of basic human rights – the right to become a farmer and to feed oneself (ActionAid 2005).

The impact of TRIPS and the control of modern seeds by the corporate sector is now clearly visible in developing countries like India. In Nepal, the effect has been less visible as commercial farming has not been that extensive in major crops. In India, a recent report stated that more than 600 farmers in one district (Vidarbha) of Maharashtra state committed suicide in a year (June 2005 to June 2006) because of loans and use of modern GMO cotton seeds from Monsanto Company. In Maharashtra state alone 4,100 farmers committed suicide in 2004, while government officials reported that more than 8,900 farmers did so in four states since 2001 (The Himalayan Times, 21 July 2006). The basic reason is that farmers were encouraged to grow GMO cotton using seed from Monsanto, and then, in one year, the seed price increased four times. Other costs also increased. Farmers took loans from banks and private sources to meet their expenses, but the price of cotton declined, which caused heavy indebtedness. In Nepal, the use of hybrid seeds is growing, mainly in vegetable production. Very recently, hybrid rice seeds have also become popular in the Terai. There are long queues of farmers desperate to buy these new seeds coming from India. Similarly, farmers also buy many other inputs like fertilizers and pesticides. They know that the yield of the paddy from this seed will be high, but the plants from this seed do not produce seeds. This essentially means that in a few years time, local seeds will be lost and farmers will be dependent on seeds from India. If seed prices increase, which is also very likely, the scenario seen in India could be repeated in Nepal.

## 4.7 Food security in Nepal

### 4.7.1 Availability of food

For the past several years, Nepal has not been self-sufficient in food, as its production growth rate is slower than the population growth rate. This is also evidenced by the food balance sheets of the country, and the country's net import of food grains and food items. As a result, food insecurity is the prime problem of the country, but it has not received the emphasis it deserves. Several reasons have been identified for the lack of sufficient food production in Nepal. The productivity of the land, reflected in the yields of food grains, has declined for some crops (especially in the hills and mountains) and stagnated for most crops. This should be viewed in the context of increased use of fertilizers, pesticides and other inputs. Lack of proper infrastructure like irrigation facilities and roads is blamed for the lack of improvement in agricultural production, but there is also a social reason for this. Agriculture, as a profession, now receives the least prestige (Adhikari 2000). It is a job for those who cannot find other types of work. Lately, it has been the work of the elderly and uneducated. This has resulted in a lack of innovation in agriculture. Because of the lack of good returns and the backwardness of agriculture, educated people are not interested in this profession. People are also hesitant to invest in the development of the agricultural sector. The increased labour migration of young and able-bodied persons has also contributed to this situation (Seddon et al. 2001).

The subsistence nature of agriculture is also blamed for the lack of rapid growth in agricultural production. From the perspective of food security, there is no problem with subsistence production. Rather, this form of farming system is considered beneficial for sustainable food security as it is least affected by market failures and the vagaries of prices and marketing conditions. Therefore, subsistence production is somewhat proofed against these problems, which can lead to food scarcity and death from hunger. But the problem with Nepalese agriculture is that it is not subsistence in the true sense. The subsistence nature of agriculture has been eroded, as it is not able to feed most households for more than six months of the year. This is especially so in the hills. Landlessness, fragmentation of land, lack of irrigation, the improper use of inputs and environmental degradation are some of the reasons for the decline or stagnation in production.

Political instability and disharmony in recent times is also one of the reasons for food insecurity in Nepal. Due to political conflict, food production has severely declined in the hills and some mountain areas. A large number of young people have been displaced from their place of origin, caught in the conflict. Most of the food insecure districts are also conflict-affected districts. These districts, being

the hilly and mountainous districts, have been facing food deficits for a long time. But other income/livelihood opportunities like the trading of products made from local resources (like herbs, woollen clothes and other handmade goods, forest products, dairy products and the like) and seasonal migration had been helping to offset the accelerating deficits in food production. In addition, the supply of food through government channels (through Nepal Food Corporation [NFC]) and other development projects) had also been increasing to some extent.

Another major source of local income for these people is the wage employment created by development initiatives. This income had helped some groups to increase their entitlements. In a peaceful environment, there were no problems with transportation; therefore, food was available in the market centres. But, with the Maoist insurgency and the possibility of being caught between the CPN (M) and the military and with the regular *bandhs* and road blockades leading to the disruption of movement of goods and commodities, the whole system of supplying food and increasing entitlement was disrupted. Even though no data is available in this regard, various newspaper reports support the fact that the food insecurity problem is particularly severe in conflict-affected districts in Nepal. In general, food insecurity is growing all over Nepal.

Food insecurity in Nepal is not a new thing. It existed even when there was enough production. However, previously, insecurity was seen mainly in the form of malnutrition. Lately, it has been seen in the form of hunger deaths. There are several reasons for the decline in food security in Nepal. These include, among others, a decline in agricultural output per capita because of the growing population, limited supply of resources like land, lack of basic infrastructure like irrigation and transportation facilities, and limited research and other services from the Government. A country which was a net exporter of food until the early 1980s now imports food. At present, it is estimated by the World Food Programme (WFP) that Nepal can meet only about 80 per cent of its food requirements. However, the Government estimates that food production in Nepal can meet the basic requirements of food for its population (see discussion below). Food production fluctuates depending upon the weather situation, and it has become a cause for concern. Lately, increased incidence of drought is leading to severe food insecurity. In early 2009, it was estimated by WFP that about 2.2 million people in Nepal, particularly in the Far Western and Mid-Western Regions, will face food problems, mainly because of the drought. Agricultural productivity has also been declining because of the unbalanced use of chemical inputs. On top of this, the conflict has exacerbated food insecurity in villages as it adversely impacted on both the production and distribution of food.

### Extent of deficit in food production

Nepal was considered a food secure country until the mid-1980s. This conclusion was drawn because food self-sufficiency was considered a criterion of food security by policymakers and planners in the past.

Since the beginning of the 1990s, the proportion of the population experiencing food deficit has grown rapidly. Koirala (1992) estimates that 47 per cent of the population in the hills was under supplied (Koirala 1992): 23 per cent in the Terai and 31 per cent in the mountains. The high population density and the degradation of land and forest resources were considered as the main reasons for food deficits in the hills.

In 2002/03, government records on food balance by district showed that 43 of the total 75 districts of Nepal were not able to produce sufficient food to meet the minimum requirements of the people in these districts (Table 4.2). This shows that food production is a general problem. During this time, food insecurity was exacerbated by the conflict, especially in remote districts like in the Karnali zone (Adhikari 2008). Inaccessibility means that food prices are much higher, normal marketing channel non-existent and transportation often extremely difficult in these remote districts. During the armed conflict, the food security situation further deteriorated as food availability was obstructed due to restrictions on food transportation and distribution. The decline in availability caused an increase in food prices. The conflict resulted in a 30 per cent increase in the normal prices in the Karnali (Adhikari 2008).

Food deficits are high in Nepal in the mountain districts and the Mid-Western and Far West Development Regions. These regions are also the traditionally food deficit districts. Out of 16 districts in mountainous regions, 13 were food deficit in 2002/03. In the hilly regions, 24 out of 39 districts were food deficit. In the Terai, there are 20 districts, and only six were food deficit. This shows that food deficiency is most severe in mountain regions, followed by the hills (Table 4.2). The average amount of food deficiency is also highest in the mountain regions, where it is estimated that in 2002/03 the region suffered a food deficit of 39 kg per capita. In the hills, this figure came to about 24 kg per capita. In Terai, overall, food was produced in surplus (of 34 kg per capita (Table 4.3). The impact of conflict was also high in the mountain region, where local food production is generally not sufficient.

**Table 4.2 Food deficit districts in 2002/03**

Ecological belt	Eastern region	Central region	Western region	Mid-Western region	Far West region	Total
Mountain	1 (3)	2 (3)	2 (2)	5 (5)	3 (3)	13 (16)
Hills	3 (8)	6 (9)	6 (11)	5 (7)	4 (4)	24 (39)
Terai	0 (5)	4 (7)	0 (3)	1 (3)	1 (2)	6 (20)
Total	4 (16)	12 (19)	8 (16)	11 (15)	8 (9)	43 (75)

Note: Figures in parenthesis are total districts in each region/belt.

Source: (DoA 2004, pp 189-191)

**Table 4.3 Belt-wise food availability and requirement of cereals 2002/03 (in MT)**

Ecological belt	Total population	Total available	Total requirements	Balance
Mountain	1,728,288	262,764	330,102	- 67,338
Hills	10,568,028	1,867,328	2,124,176	- 256,648
Terai	11,665,965	2,511,374	2,111,542	399,832
Total for Nepal	23,962,281	4,641,466	4,565,820	75,646

Source: DoA (2004, p 188)

Food production, requirements and deficits in Nepal from 1990/91 to 2004/05 are given in Table 4.4. Considering the five main crops in Nepal, food availability in edible form (which essentially represents production) was declining in comparison to food requirements until 1998/99. Accordingly, food deficits were occurring and growing until then. The food deficit as a percentage of requirements fluctuates as it is also dependent on climatic conditions. In some years, favourable climate conditions lead to a bumper harvest, and, in other years, unfavourable conditions lead to a meagre harvest. Even in the past, when Nepal was a net exporter of food grains, it used to suffer from occasional food deficits. For example, in 1972 there was a severe drought, which led to very high prices for food grain. This happened again in the 1980s. This fluctuating production is another cause of food insecurity. As is seen in Table 4.4, the deficit reached 12.5 per cent of the requirements in 1994/95, or 485,155 metric tons. Food deficits in the early 1990s (1991/92 to 1994/95) were generally higher than in the latter half of the 1990s. On average, the deficit as a percentage of requirements during the period from 1991/92 to 1994/95 was 7.7 per cent, but from 1995/96 to 1998/99 it averaged only 2.8 per cent. For the years 1999/00 to 2004/05, there was a surplus production of 1.5 per cent to 4.4 per cent. Again, favourable weather conditions are considered responsible for this increase in food production.

**Table 4.4 Nepal's food requirements and production of edible food grain (in MT)**

Crops	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Production Rice	1892105	1738013	1393697	1827110	1577820	1949761	2002747	2035725	2074193
Maize	877075	836564	1100452	837653	883267	929513	894779	940767	920094
Wheat	651956	603592	595998	687426	709304	786936	827438	806849	55647
Millet	190177	187700	194407	224958	219262	236478	236982	233764	238968
Barley	7642	7579	7572	7965	8107	11190	10641	10244	8710
Total production	3618955	3373448	3292126	3585112	3397760	3913878	3972587	4178077	4279491
Total requirement	3486776	3561838	3633724	3723722	3882915	3948229	4079135	4178077	4279491
Balance	132179	-188390	-341598	-138610	-485155	-34351	-106548	-150729	-181876
% Deficit/surplus	-	-5.3	-9.4	-3.7	-12.5	-0.9	-2.6	-3.6	-4.2

Crops	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Production Rice	2259393	2356646	2294205	2271914	2455971	2358540
Maize	1007178	1001478	999831	1059751	1082455	1186840
Wheat	934559	914885	1008827	1069257	1105087	1151282
Millet	242331	231915	231714	231931	232373	237778
Barley	8478	8255	8472	8613	8485	8113
Total production	4451939	4513179	4543049	4641466	4884371	4942553
Total requirement	4383443	4430128	4463027	4565820	4671344	4779710
Balance	68496	83051	80022	75646	213027	162843
% Deficit	+ 1.5	+ 1.8	+ 1.8	+ 1.6	+ 4.4	+ 3.3

Source: DoA (2006, pp 202–207)

Even though recent trends (1999/00 to 2004/05) show improvement in food self-sufficiency at the national level, the urban areas and food insecure areas continue to be dependent on Indian markets. In a study of urban food security, it is revealed that urban areas in Nepal (Kathmandu and Pokhara) depend heavily on Indian markets for all types of food grains, vegetables, fruits and other food products. Moreover, the distribution of food is controlled by a handful of businesspeople. The supply of food from government sectors in these towns where non-food producers live is almost negligible. Most people living in urban areas depend on income and employment for food security. For them 'income security' is most important, and there should also be the free flow and smooth marketing practices with regards to food. But, due to the current oligopoly in the control of food, food shortages

could also result from artificial shortages created by businesspeople. Kathmandu experienced such situations in 1982. Dependency on India for food may also make the urban population vulnerable to the vagaries of international politics and production conditions (Adhikari & Bohle 1999b; Adhikari 2006c). This was very well observed in Kathmandu when there was a strike in the Terai by Madheshi people in the second half of February 2008. On the other hand, the conflict-affected regions (like the Karnali) were impacted differently. There, the supply of food from outside was curtailed by the CPN (M) through the imposition of strikes and blockades and the extortion of both food and cash.

#### 4.7.2 Access to food and its utilisation: Food consumption and nutritional status

One of the main features of food security, as discussed above, is the access to sufficient food by all people at all times. To examine whether this situation exists or not, surveys like health surveys, nutritional surveys or even food consumption surveys are conducted. The analysis of food consumption (or nutritional status) is more important than the analysis of food availability, as households not producing food may be consuming sufficient food through other exchange systems, like purchase, exchange of food for labour or other assets/property, member of a kinship group or other social groups having access to food, or by borrowing food or money to purchase food.

Various nutritional surveys conducted in Nepal reveal that the nutritional status of people, usually of children, has been deteriorating. A national survey conducted in 1975 revealed that 48.1 per cent children suffered from chronic malnutrition and 6.6 per cent children suffered from acute malnutrition. A survey conducted in 1995 revealed that 63.5 per cent of children suffered from chronic malnutrition and 6 per cent from acute malnutrition. The Nepal Family Health Survey (NFHS) conducted in 1997 revealed that 48.4 per cent of children suffered from chronic malnutrition and 11.2 per cent from acute malnutrition. The Nepal Multiple Indicator Surveillance (NMIS) conducted in the same year found the figures to be even higher than this: 53 per cent for chronic malnutrition and 16 per cent for acute malnutrition.

Nutritional surveys conducted in Nepal in 2001 and 2006 also reveal that nutritional status of people, especially of children, has been deteriorating. The recent surveys that are worth mentioning are the Nepal Living Standard Survey (2003/04) and Demographic and Health Survey, 2006. These identify the groups of people suffering from various problems related to food insecurity, mainly nutritional problems (see Table 4.5). Table 4.5 shows that about 40 per cent of people consume less than the required energy (2240 calories per day) in 2003/04. Stunting among children (below 5 years) remained more or less same in the period from 2001 to 2006, but

the incidence of underweight declined significantly, from 45 per cent to about 37 per cent. However, the incidence of wasting grew significantly during this period. There is also a variation in the type of malnutrition according to ecological region and development region. In terms of calorie intake and stunting, Himal and hill regions suffer more. But in terms of wasting, the Terai seems to have the most severe problem. Similarly, the problem in Mid-Western and Far Western Regions is far more serious than in other regions.

**Table 4.5 Poverty and food (nutritional) insecurity according to ecological and development regions**

Region	Poverty Rate (%)	Population not consuming minimum calories (%)	Stunting among children below 5 years (low height for age) (%)		Underweight among children below 5 years (low weight for age) (%)		Wasting (low weight for height) among children under 5 years age (%)	
			2001	2006	2001	2006	2001	2006
<b>Nepal</b>	<b>30.8</b>	<b>39.9</b>	<b>50.4</b>	<b>49.3</b>	<b>45.2</b>	<b>38.6</b>	<b>9.6</b>	<b>12.6</b>
<b>Ecological zone</b>								
Himal	32.6	45.2	61.4	62.3	45.1	42.4	5.3	9.4
Hill	34.5	41.8	52.4	50.3	41.4	33.2	5.9	8.4
Terai	27.6	37.4	47.3	46.3	48.4	42.3	13.3	16.6
<b>Development region</b>								
Eastern	29.3	37.6	47.6	40.3	43.4	32.9	9.1	10.1
Central	27.1	39.9	50.0	50.0	44.7	38.2	10.8	13.8
Western	27.1	37.2	50.1	50.4	43.4	38.5	8.9	10.9
Mid-Western	44.8	44.3	53.9	57.9	49.0	43.4	8.8	11.6
Far Western	41.0	44.9	54.0	52.5	48.9	43.7	8.8	16.7

Source: CBS, WFP & WB (2006); USAID, New Era, MoHP (2007)

The nutritional security or the status of nutrition among children is also dependent on many social factors, including the status of women and girls in society. This status is the accumulated effects of various other factors like violence against women and illiteracy, which in turn affect access to health and sanitation knowledge, the decision-making role of women, intra-household food distribution practices and fertility rates. The cultural practices that put women in a lower position reduce their empowerment within the family. Thus, they have less access to food and other resources. This leads to low health and food security for women. The children of such mothers also suffer from health and food insecurity.

## **Poverty, food insecurity and their determinants**

Poverty and food insecurity are interdependent. Poverty erodes entitlement to food, and, as a result, food insecurity may result, even if there is sufficient food. Employment and income opportunities can reduce the food insecurity of an individual. In the context of globalisation and free trade, income security is also considered important for food security. But the question arises as to whether or not trade is fair and free and whether or not there is a perfect market. Lack of free trade and various interventions in the market and its control by a few oligopolists have led to many unfavourable situations with regard to food security. Moreover, food is also a political weapon that can be used against a country that is not self-sufficient in food.

Poverty in Nepal, measured by different indicators, is widespread, even though its concentration varies from one geographical region to another and from one group of people to another. Based on the data collected for the recent Nepal Living Standards Survey (2003/04) it is estimated that poverty has decreased by 11 per cent over a period of eight years (from 42% in 1995/96 to 31% in 2003/04), mainly due to remittances, increases in real wages in agricultural and non-agricultural sectors, and urbanisation (CBS 2006; Table 5). However, it should be noted that remittances have been mainly enjoyed by wealthier households. The poorest 20 per cent, whose income has not increased in recent decades, do not have access to remittances. Therefore, food security may not have improved for these poorest 20 per cent of households. Between 1995/96 and 2003/04, the incidence of poverty declined by 8 per cent in rural areas (from 43% to 35%) and by 12 per cent in urban areas (from 22% to 10%). During this period, expenditure inequality widened. The income inequality between the rich and poor as measured by the Gini coefficient rose from 0.34 in 1995/96 to 0.41 in 2003/04. This indicates a sharp rise in inequality. The main reason for this growing disparity in income is the lack of access to remittances by the poorest 20 per cent of households, which is the main factor responsible for the overall increase in average per capita income of people, but which has happened due to a rapid increase in the income of wealthier households. The consumption expenditure of the bottom 20 per cent of people increased by only 22 per cent, whereas that of the upper 20 per cent of people increased by 64 per cent. In 1995/96, the bottom 20 per cent of households constituted 8 per cent of total consumption expenditure, compared to 43 per cent by the upper 20 per cent. In 2003/04, these figures were 7 per cent and 49 per cent, respectively – revealing a growing gap.

The income poverty discussed above has many dimensions, including food insecurity. Food insecurity is the most common expression of poverty for the majority of households in Nepal. Despite the label of 'subsistence agriculture', most

households do not derive their full security from farming. Therefore subsistence farming and the consequent subsistence affluence is a myth in the context of Nepal. Food poverty is widespread in Nepal and reaches an annual peak during the 'hungry season' of April to July.

The spatial dimensions of poverty in Nepal also need attention. In line with the distribution of poverty, food security is also different in the different development regions. The most food insecure region in the country is the Far West Development Region, especially the Karnali zone, where hunger deaths in the late 1990s drew the attention of policymakers (1400 died during a famine in 1997). This incident also heralded the failure of development initiatives in the country. The districts, in which hunger deaths and food insecurity are chronic, also have the lowest human development index (HDI) in the country. As a matter of fact, there is a direct and rough correlation between food insecurity and HDI in the districts of Nepal.

**Table 4.6 Poverty scale in Nepal in 1995/96 and 2003/04**

Regions	Poverty headcount rate		Distribution of poor		Distribution of population	
	1995/96	2003/04	1995/96	2003/04	1995/96	2003/04
Nepal	41.8	30.8	100.0	100.0	100.0	100.0
Urban	21.6	9.6	3.6	4.7	6.9	15.0
Rural	43.3	34.6	96.4	95.3	93.1	85.0
Kathmandu	4.3	3.3	0.3	0.6	2.6	5.4
Other urban	31.6	13.0	3.3	4.1	4.4	9.7
Rural western hills/mountains	55.0	37.4	32.7	23.6	24.8	19.4
Rural eastern hills/mountains	36.1	42.9	19.4	29.4	22.4	21.1
Rural western Terai	46.1	38.1	18.4	18.9	16.7	15.3
Rural eastern Terai	37.2	24.9	25.9	23.5	29.1	29.1
Development Regions						
Eastern	38.9	29.2	21.0	23.4	22.5	24.7
Central	32.5	27.1	26.9	32.2	34.6	36.6
Western	38.6	27.1	18.7	16.7	20.3	18.9
Mid-Western	59.9	44.8	18.5	17.7	12.9	12.2
Far West	63.9	41.0	14.8	9.9	9.7	7.5
Ecological belts						
Mountains	57.0	32.6	10.7	7.5	7.9	7.1
Hill	40.7	34.5	41.9	47.1	43.0	42.1
Terai	40.3	27.6	47.4	45.4	49.2	50.8

Source: CBS (2006)

The determinants of poverty and food insecurity at the household level in Nepal vary, and they are also complex. In addition, these determinants do not act alone. The combination of these determinants may vary from one household to another and from one region to another. A study on the determinants of food security in rural Nepal revealed the following determinants (Adhikari & Bohle 1999a).

- **Access to resources:** Access to land and water was the main factor affecting the risk exposure of households. Access to irrigated lowlands suitable for paddy cultivation was found to be most important. As the size of household landholdings is declining because of increases in population, and a large proportion of households already have small landholdings, other factors related to off-farm activities determine their ability to secure food.
- **Ecological setting:** The ecological setting determines the type of resources available in a certain locality. Harsh environmental conditions put people in a vulnerable position.
- **Accessibility:** Settlements in accessible areas have relatively better food security. Inaccessible areas face higher food prices. They were also found to be politically weaker, and, hence, unable to put pressure on the government and media for relief measures when faced with landslides and floods.
- **Marketing opportunities:** In areas where marketing opportunities exist to sell or exchange things that villagers produce, food security was comparatively better.
- **Availability of common property resources:** Common property resources like forest and pasture helped poorer households to derive a livelihood. In areas where common property resources existed, people were less vulnerable to various external and internal shocks like flooding, landslide and famine.
- **Family size and composition:** Family size is strongly correlated with the consumption of food. Families with proportionately more children, and with sick and elderly people, were found to be in a more vulnerable position, i.e., consuming less food.
- **Ethnicity:** Particularly members of the occupational caste (Dalits) were found to be in a vulnerable position as they face discrimination, not only in their work, but also involving food preparation and access to resources.

- **Gender:** Various cultural and political practices were found to make girls and women vulnerable to food insecurity. Lack of mobility, lack of access to education and family property, and customs that place women in a lower position than men make them vulnerable to food insecurity.
- **Social network:** Families without membership in well-to-do households are particularly vulnerable. Social networks were found to be important for obtaining relief during times of distress, and for access to off-farm job opportunities, both within and outside the country.
- **Education:** People with higher educational level were found to be relatively secure in food as they know about food and its availability, have knowledge about health and sanitation, and have information about the political process for obtaining food. Education was also found to increase the income of people and they had greater resilience to shocks and risks because of their knowledge and access to information.
- **Political assertiveness:** Areas with high level of political assertiveness were found to receive various facilities from the government and were relatively food secure.

Even though the above determinants were directly related to food security at the household level, they are also the result of the national economic, social and political conditions. At the national level, economic growth rates have been rather slow to generate employment and income opportunities for poor people. Whatever has been generated has been mainly taken by higher-class people. During the period from 1976/77 to 1995/96, the overall growth rate (GDP) was about 4 per cent, a rate that only marginally exceeded the population growth rate of 2.37 per cent. During the same period, the growth rate in the agricultural sector was even smaller, less than 2.5 per cent and over the years has shown very inconsistent behaviour (Sharma 1994). However, it should also be noted that growth rates in total GDP and in agriculture have not been consistent. For instance, in the 1990s, the annual growth in real GDP varied from a low of 2.72 per cent in 1997/98 to a high of 7.90 per cent in 1993/94 (Ibid). But in 2001, GDP grew by only 0.8 per cent. While the growth of the non-agriculture GDP (NGDP) always remained positive, less variable and greater than the population growth rate, until 2000; negative growth rates have been recorded since then. This is partly linked to the political unrest created by the Maoist insurgency. The decline in the export opportunities for carpets and readymade garments is also equally responsible for this sorry state of affairs. Growth rates in agriculture GDP (AGDP) were negative in three

out of eight years in the period 1993 to 2000, and had a higher variability and were less than the population growth in five out of these eight years. Growth rates in agriculture vary because it is influenced by rainfall patterns, and a large area still lacks year-round water supply. The low and declining productivity of the land, the high population growth rate, and deteriorating environmental conditions are other reasons for the slow growth rates in agriculture. Despite these problems, the income from remittances has been propping up village economies. This income has acted as a main force to balance the current account deficit of the country. The income from remittances is estimated to contribute from 15 to 25 per cent of GDP, and, in 2001, approximately NRs.77 billion to NRs.110 billion is estimated to have entered Nepal (Graner & Seddon 2004, pp 29-54). But the conflict led to a lack of economic activities within the country, leading to the unemployment of many young people. Overall, the decline in agricultural production activities, transportation blockades, restrictions on trade, the restricted movement of food from one part of the country to another, blockades on selling village products to the cities leading to a lack of income for poor and marginal farmers, unavailability of food, increases in the prices of food, and the like were the results of the conflict that are directly related to food security.

### **Wage rates and food security**

The wage rate in relation to food prices is one indicator of food security. As argued by Sen (1981), falling wage rates in comparison to food prices put wage earners and marginal farmers not producing enough food in a vulnerable position. These people now dominate Nepali society. Therefore, it is important to examine wages rates in relation to food prices and inflation.

In 2008, prices of food increased tremendously all over the world. It was a global crisis. Prices of food also increased at a high rate in Nepal. Prices of basic food items like rice, wheat flour and cooking oil skyrocketed. The price of cooking oil increased by about 50 per cent and the price of rice by 30 per cent in this period. As the poor already spent more than 75 per cent of their income on food, the increase in price directly reduced the amount of food and other non-food essentials they could purchase. As the expenditure on food increased, poor households had less to spend on other activities like healthcare and children's education (Adhikari 2008, p 4).

At the same time, the wage rate did not increase. Instead it fell because of unemployment and surplus labour. Because of this, people could buy less food. This increased the burden on elderly and children, which was seen in the form of their participation in workforce to generate extra income for food purchases. Poor parents took their children out of school to take part in income earning activities.

One of the reasons poor households felt the immediate impact of price rise was that they did not have the capacity to stock food. As a result, fluctuations in the price of food affected them.

During the conflict (1996-2006), a similar kind of impact was seen. The conflict resulted in the increase of the prices of food because it imposed many risks on transportation. Businesspeople added all the potential risks and actual losses (like looting of food, taxes on trade imposed by Maoists, forced donations, etc.) onto the price of food. In the Karnali region, the prices of food were estimated to have increased by 30 per cent. At the same time, because of unemployment, in many places, the wage rate, in fact, declined absolutely.

Even at present (2010), inflation of food prices continues in Nepal, even though it has declined drastically in other countries like India. Nepal faced a whopping 13 per cent increase in food prices in the first half of 2009. But wages have not increased at the same rate. Except for the minimum wages imposed by the Maoist's trade union, wage rates have not increased significantly. In the informal sector, wages have not increased at all. As a result, most people complain about food being expensive in the market; the food crisis seems to be growing.

#### 4.8 Impact of conflict on food insecurity in Nepal

The armed conflict in Nepal, which took place from 1996 to 2006, led to the destruction of basic infrastructure, the internal displacement of people; the death of about 15,000 people; regular strikes (*bandhs*) and blockades of transportation, schools, offices, industry and trade; restrictions on the movement of people, goods and commodities; the extortion of money, food and other things from individuals and businesses, and the conscription of young people to serve in the rebel army. The main targets of the insurgents (people on whom these difficulties were imposed) were, of course, their political opponents, who were generally the wealthy/ruling class (class enemies). But as the conflict was guided by political ideology, the victims were all those who opposed their political thinking or those who did not support the rebels or the CPN (M) party (now the UCPN [M]). Even though, the 'revolution' was meant to benefit, in theory at least, the poor or the working class, it seems that they also suffered much in the process. The severity of the problems experienced differed for different groups and regions. As the areas most affected by the conflict were already food insecure areas, it is difficult to separately evaluate the impact of the conflict. Nepalese society has always been impacted by violence of different types including gender violence, caste violence and other violence ingrained in the society (i.e., structural and cultural), which adversely impacts on food security, particularly of women, children and so-called lower caste groups. The different types of conflict and violence were working together, even during

the armed conflict. However, attempts have been made to identify the problems added by the armed conflict with regard to food security. Nepal suffered from food insecurity, even before the armed conflict. The added impact of the conflict on food insecurity is primarily discussed here.

There is only scant information on the consequences of the conflict on food security. Anecdotal evidence and observations made during visits to rural areas reveal some trends with regard to food insecurity. The primary information presented here is mainly drawn from author's visits to rural areas during the conflict. The districts covered were Chitwan and Ramechhap (in Central Nepal) and Dailekh and Banke (in Western Nepal). The secondary information used here comes from various reports published in newspapers in the form of reports from the field.

Even though all seem to suffer from the conflict, it is mainly the poor, indigenous people (ethnic groups), elderly, children and women, and people in remote areas, especially the Mid-Western and Far West Development Region, who suffered the most from the conflict. Food insecurity caused by the conflict affected these people disproportionately. There was a variation in the intensity of the conflict from one region to another. Especially the hill and mountain villages in the Mid-Western and Far West Development Regions were adversely impacted as the rebels established their centres there. There is also a hypothesis that more Dalits and Janajatis were killed than other groups largely because their participation in People's Liberation Army (PLA) was disproportionately high as compared to other ethnic/caste groups. The counter insurgency unleashed by the Government security forces also adversely affected these regions. In general, urban areas suffered less because the rebels had no base in these areas, and they were also not in direct contact with the people in urban areas. However, cases of cash extortion were numerous in urban areas. In rural areas, people had to provide shelter, food and labour for the rebels. The armed conflict affected food security in a number of ways including:

- Decline in production
- Decline in income and employment opportunities
- Loss of household members or their productivity
- Displacement
- Decline in food stock and other assets
- Reduced mobility of people, goods and services, and increases in food prices
- Increase in child malnutrition
- Destruction of infrastructure and reduced basic services

- Decline in natural assets and income from common resources
- Decline in community trust and social safety net
- Reduced access to food and services from government and non-governmental agencies

**These impacts are discussed in the following sections.**

#### 4.8.1 Decline in production

Food production in Nepal has declined for various reasons related to the armed conflict. Direct threats and attacks (by the CPN [M] or the security forces), insecurity, and diminished access to land and other inputs have reduced the ability to undertake normal farming activities and have led to involuntary migration. Estimates of internally displaced persons vary from 50,000 to 400,000. It can be assumed that the land they left behind is underused, if not left fallow. Reduced availability of inputs and the increased cost of inputs have also reduced the production of food. Similarly, livestock production has also declined substantially due to the conflict. A study (sample study of displaced persons from different regions of Nepal) estimates that there has been a drop of 35 to 60 per cent in production on bigger farms and between 5 and 30 per cent on smaller farms since the conflict (Dixit & Sharma 2003, p 29). The same study revealed that 31 per cent of the *khet* (lowland, paddy land) was left fallow by displaced persons, whereas no *khet* was left fallow during peaceful times. Regarding *khet* (wet land), 46 per cent of displaced persons left *khet* to remain fallow, whereas in peaceful times only 1 per cent did so. With regard to *pakho* (dry land), 58 per cent of displaced persons left it fallow, whereas before only 0.2 per cent did (Ibid, p 22 and 23). Before displacement, 89 per cent of households raised cows, 80 per cent raised buffaloes, 44 per cent raised oxen and 70 per cent raised goats. After displacement, this number reduced to 29 per cent, 30 per cent, 13 per cent, and 24 per cent, respectively (Ibid, p 25). Similarly, there has been decline in agro-industries by almost half since the conflict. In Chitwan district, which is known for commercialised farming, regular *bandhs* and blockades made it difficult to transport goods to the market. *Bandhs* or blockades sometimes lasted weeks and there were a number of instances where farmers spilt their milk and a large volume of vegetables on the road in protest and in desperation. Poultry production was also severely damaged by the conflict. Once, when there was a long blockade in Chitwan, the price of chicken meat and eggs fell substantial in the local market. As Chitwan normally supplies these products to many places throughout the country, local demand alone was not sufficient to consume all of the produce. In Ramechhap district, farmers stopped doing various farming activities like weeding and hoeing for maize crops, because of labour shortages, as many young people had fled the villages. In Kailali and Bardia district, for example, the

CPN (M) captured more than 1500 *bigha* of land, which they allowed squatters to cultivate. But the squatters were too afraid to actually cultivate the land because they feared that the security forces might take action against them believing them to be CPN (M). As a result, this land has been left fallow (Chaudhary & Bhandari 2005, p 18).

#### 4.8.2 Decline in income and employment opportunities

Because of the conflict, there has been a general decline in income and employment opportunities. Regular blockades, which prevented food supplies from reaching markets, especially district headquarters, reduced marketing opportunities, lack of mobility for trade and wage employment during farm off-seasons, reduced developmental activities, and reduced construction of infrastructure and houses has meant a decline in income and employment opportunities. The study conducted by Dixit and Sharma on displaced persons revealed that, on average, before the conflict, respondents employed farm labourers for 25 labour days (13 male and 12 female) in a normal year. After they were displaced, respondents employed only 5 labour days (2 male and 3 female). This means that displaced landowners reduced labour employment by 20 labour days a year (Dixit & Sharma 2003, p 17). The study reports that 67 per cent of the agricultural workforce had become jobless in the Far West Development Region and 10 per cent in the Mid-Western Development Region. Because of the high presence of Maoists in the Mid-Western and Far Western Development Region, labourers had cultivated the land (in the absence of landowners and often forced) and paid half of production to the local office of CPN (M) (Ibid, p 19). Before displacement, 78 per cent of landowners paid wages in cash, but after the conflict and displacement, only 32 per cent of the displaced paid wages in cash (Ibid, p 19). This essentially means a reduced ability to purchase food.

Wage employment opportunities have declined in general because of the decline in investment in agriculture, trade and commerce, development projects and infrastructure. As young men move away from the villages (IDPs are usually men), it is the women who have had to look after the children, run the farms, and deal with the problems created by the CPN (M). In some cases, women have had to voluntarily donate labour to the CPN (M) cause. Even those people who were not directly targeted by the rebels as 'class enemies', had to donate labour in the form of carrying goods and arms, and for development related works like road building.

For the poorest of the poor (who usually have no assets including land or who are marginal farmers), employment-based entitlements are the main source of food security. These entitlements in rural Nepal come mainly from farming. As farming

were disrupted during the conflict, such employment opportunities have declined. Farming, as a whole, also declined because of external factors like international trade. On the other hand, even those who were carrying out farming as a way to utilise resources, reduced farming activities in the face of conflict and violence.

#### 4.8.3 Loss of household members or their productivity

The death of about 15,000 during the conflict, most of whom were income-earning adults, is a big setback for their households. In addition, the number of disappeared and injured has increased the dependent members in a household. Those widowed and orphaned by the conflict must have experienced significant personal trauma, as well as threats to their livelihoods. Households with this problem not only lose income, they also have to shoulder the additional burden of looking after the sick and injured. In 2004, the author conducted a study on the impact of the conflict on general livelihoods in Ramechhap district. It was reported that there were more than 300 women widowed by the conflict. In general, widows (conflict related widows are generally young) were found to leave their husband house after some time. They face problems related to farming, child welfare and the inheritance of property. Family property generally goes to the son, and, if the son dies, to his widow. However, especially young widows find it difficult to assert their rights over the property of their husbands. Although she is legally entitled to her husband's share of the family property, other family members fear that young widows might remarry and take their share of the family property to another man. Therefore, other family members create problems in sharing the family property. To escape this, young widows usually go back to their parent's family, if they have parents. But here they also cannot remain for long because the families of her brothers may not like her or may see her as a burden. There is also the possibility that these young widows may bring perceived shame to their parents and kin members by developing extra-marital relations. Because of all these problems, these conflict-affected women often run away from their families and communities to live in places where they are not known. They usually end up in Kathmandu working in some degrading job, especially in the 'entertainment' industry, for which no skills are required.

#### 4.8.4 Displacement

The conflict has led to the displacement, not only of landlords (usually from the fear of CPN [M]), but also of poorer people (caught between the Government security forces and the Maoist). These include both families and individuals (usually male and politically active). The total number of internally displaced persons (IDPs) is unknown, but some estimates suggest very large numbers indeed – possibly as many as 400,000 (e.g., Dixit & Sharma 2003) – and anecdotal evidence suggests that thousands a day crossed the border into India through checkpoints in the

mid western and far western Terai in 2002. These figures seem exaggerated, but there is no basis for reliable estimates (Seddon & Adhikari 2003). The scale of the phenomenon is such, however, that it must have had some impact on farming in the areas, districts and villages from which these internally displaced/involuntary migrants have come.

**Box 4.1 Internally displaced families in Nepalgunj**

Kitthe Lohar, a blacksmith of Khamle-2, Mugu, was asked by the CPN (M) to leave his sick wife at home and work for them. This was about nine months ago. Kitthe fled the village carrying his sick wife (in a bamboo basket) on his back and a child on his chest. Walking eight days he reached Mangalsen and then went on to Nepalgunj. Now living in a hut, he is still facing the problem of his wife's illness. The child does not eat anything. He had left behind two cows, two oxen, a buffalo and a field production of a few Muris paddy. Now he does not have anything to eat. He does not know how to treat his wife. His loan has amounted to NRs. 1,370.

There are 216 families displaced from the Bheri-Karnali that are now (2005) living in Nepalgunj. Most of them have no means of feeding their families. Among them is a 65-year old lady Nandakala Budha who escaped with her son by walking at night. Most of these families are not able to secure their basic food requirements. Somewhat earlier, the Nepal Red Cross Society had distributed 135 quintal of rice to 141 families living there.

Among these 216 displaced families, 73 are from Mugu, 63 from Dailekh, 40 from Jajarkot, 23 from Surkhet, 9 from Kalikot, 4 from Jumla, 2 from Humla, 1 each from Salyan and Bajura. Among them, 135 moved out as a direct result of the conflict and 81 because of social and economic pressure, an indirect result of the conflict. The Nepal Red Cross is of the opinion that these displaced people should be returned to their original villages instead of giving incentives to live in displaced camps. Because of the rumour that one can live in the camp with free meals, more and more people are coming to live in the camps. But the displaced persons say that they will be killed if they return. They do not believe that there will be peace in the villages (Gautam 2005, p 1).

Displaced people have also been fleeing to India, where they have created effective competition among themselves. As a result, they have had difficulty in getting employment. Wage rates are said to have dropped by about 25 per cent because of the competition. Moreover, most displaced Nepalis end up in slums, where there are already so many problems.

Displacement coupled with migration has adversely affected farming in the villages. The displacement and migration induced by the conflict is male specific, because it is politically targeted. As it was mainly men who were politically active, it was mainly men who had to leave the village because of the conflict. This resulted in the feminisation of farming. From time to time, there are reports of women doing farming activities that are ritually denied to them or that had been considered too hard for women. For example, ploughing (culturally considered to be a man's job) or roofing the house (which is physically difficult), and the like. Women have taken on these tasks out of necessity to grow crops for their family, the alternative being hunger.

#### 4.8.5 Decline in food stock and other assets

It is a common fact that the CPN (M) and the Government security forces have extorted food from households. Extortion by the Maoist was more common than by the security forces. CPN (M) not only demanded food grains from households, but also lived in family homes in large numbers. This caused the depletion of household food stores, leading to food insecurity.

#### 4.8.6 Reduced mobility of people, goods and services, and increases in food prices

A major impact of the conflict was the reduced mobility of people; restrictions on the transportation of food and goods; and reduced availability of other services. The result has been a decline in income (as mobility for wage employment and trade is one source of income) and an increase in the price of food stuffs. The usual flow of imports into the rural areas, including, notably, imported food stuffs, has been hampered by restrictions of various kinds imposed by both the security forces and the CPN (M), and by general insecurity. The CPN (M) taxed the flow of commodities and, in some cases, looted food stuffs being transported. Both the Government and other public agencies (like NGOs/INGOs and international agencies) as well as private traders stopped or reduced supplies of food to conflict-affected areas, which also happened to be food deficient districts in normal times. These districts (mainly in the Far West and Mid-Western Development Regions, particularly the upper Karnali), which used to depend on imported foods, experienced severe problems in obtaining food from Government stores and shops.

In Ramechhap district, for example, the conflict caused food insecurity. There were constant blockades of the district headquarters to increase the pressure on the Government. During the blockades, goods could not be supplied to markets, particularly headquarters. Similarly, goods from the markets could not be distributed to customers in the villages. Because of this, farmers were not able to sell their goods from time to time. In this district, farmers had kept dairy animals (cows and buffaloes) for the production of milk, which was sold in a co-operative. The co-operative then supplied the milk to Kathmandu. But because of the frequent strikes, people could not sell raw milk to the co-operative. As a result, they started producing ghee from the milk, as ghee can be stored for a long time. Profit from ghee was low compared to that from the sale of raw milk. Similarly, small farmers and poor people have been discouraged from increasing the production of goats, vegetables and other produce because of transport strikes. In Ramechhap, strikes and blockades were more frequent than in other places. The CPN (M) did not have good relationship with the only transport company that ran in the area, which failed to meet the CPN (M's) demands for donations. This resulted in frequent blockade

and the destruction of vehicles. It is reported that the CPN (M) demanded NRs. 1 lakh per vehicle per year, which was considered too high by the company. It is mainly because of the conflict that prices of food grains increased. The WFP monitor in Ramechhap reported that 18 of the 55 VDCs in the district have faced chronic food insecurity. These monitors also record food prices. At the time of the survey, food prices had increased in Ramechhap because of blockades in Sindhuli, which supplied food to Ramechhap. For example, the price of rice was NRs.115 per pathi (normal price was NRs.80-90), maize NRs.60 per pathi (normal price was NRs. 35-40), wheat NRs.40 per pathi (normal price was NRs.25-30). A similar situation was also seen in Dailekh. At one time there was a continuous blockade for two-months, which led to significant price increases. At that time, the price of a 30 kg bag of rice increased to NRs.840 from NRs.640; dhal to NRs.60 per kg from NRs.35; kerosene to NRs.50 per litre from NRs.25 per litre; and sugar to NRs.45 per kg from NRs.35 per kg. The blockades also caused problems in the supply of products from villages to markets like Dailekh bazaar. Farmers were not able to sell perishable products like vegetables and milk. As food could not go from the bazaar to the villages, there was no option except to buy food from local landlords. From time to time, the Government security forces also imposed restrictions on the supply of goods to the villages. A villager could only take a pair of batteries and 15 kg of food to the village. This was done to curtail supply to the CPN (M), but it also created shortages.

#### Box 4.2 Food shortages in Diktel

Diktel residents have not been able to come to terms with the attack on the headquarters of Khotang district. They fear another attack by the CPN (M). Residents also fear food shortages and the high prices of commodities. Now (2005) the CPN (M) do not let them bring foods and other things from the villages to the headquarters and there are problems in transporting goods and food, it is done only by porters as there is no road from Gaighat. Thus, food is becoming scarce. The Nepal Food Corporation has not been able to supply enough food to the people. Those who come to the headquarters with a gunny bag for the collection of food, return home empty handed. There is famine in the village. It is expensive to buy food. The Government quota is just wishful thinking. Nowadays, people from the villages do not come to town, and even if they do come, they don't stay. There are no business activities, as in the past. Now it is difficult to survive. The town is depopulated as entrepreneurs and businesspeople have deserted it. There are only four telephone lines from which one-way communication is made. Very occasionally helicopters come. There are about a thousand porters and eight hundred donkeys for transportation. They are also stopped on and off by the rebels. As a result, food has become expensive. The price of food (NRs. per kg): rice – 80, maize, millet and wheat – 35, dhal – 90, salt – 30, mustard oil – 120, and kerosene – 70. At present only about 15 per cent of the food is being transported, compared to normal times.

Source: Magar & Rai (2005, p 1) – an article in *Kantipur Daily*, 20 July 2005

#### 4.8.7 Child malnutrition

Nutrition experts have been concerned that the conflict has worsened the state of child malnutrition. The constant migration and displacement of villagers has made

the problem worse. The children of displaced people need to cope with new food, and it is difficult for them to adjust. Displaced people are generally not able to afford green vegetables or enough rice and feed their children dry, non-nutritious foods lacking vitamins and protein. In conflict-affected areas, food insecurity and deficit consumption has adversely affected children. It is reported that about 90 per cent of children in conflict-affected areas (i.e., defined by the government as areas intensively affected by the armed conflict) suffered from chronic malnutrition. The problem got worse because whatever nutrition projects were operating in conflict areas were gradually phasing out as more organisations shifted towards conflict related humanitarian and relief work (Newar 2005, p 11). In Nepal, 70 per cent of child deaths are indirectly a result of malnutrition. Protein-energy malnutrition affects 63 per cent of Nepali children, which means they do not get enough food to maintain normal physical and mental functions. More than half the children have stunted growth (see Table 4.5). These children may also suffer from learning disabilities. A report indicates that the above stated problems, along with other problems like underweight among the children had increased among the conflict-affected families (Newar 2005, p 11).

#### 4.8.8 Destruction of infrastructure and reduced basic services

During the armed conflict, infrastructure like bridges, community buildings (especially VDC buildings), and government offices were destroyed. Government staff providing services to the people were displaced to district headquarters. Banks and financial institutions closed their operations in rural areas and moved to urban areas. Villagers were then deprived of all types of services – financial, health, security, agricultural extension, veterinary services and the like. As the moneylenders were also displaced, loans were not available in rural areas. People in general did not extend loans. The lack of services caused problems for many people. For official work (e.g., to meet the VDC secretary), one had to travel to the district headquarters, which meant spending one or two days and staying in a hotel. This increased the burden on people. Money which could have been used for food was diverted to such wasteful activities. It is difficult to objectively verify how much these things happened, or estimate the cost of such inconveniences and hardships. Some attempts were made in the past to measure the economic cost of the infrastructure damage. Karki and Bhattarai have estimated that about 8 to 10 per cent of GDP has been lost (Karki & Bhattarai 2003, p xiv). This could be roughly US \$ 694.44 million. Another estimate revealed that the cost of repairing infrastructure damaged during the 15 months of the emergency alone is about US \$ 30 million (Grosney 2003). Still another estimate claimed that the conflict or the ‘people’s war’, as it is generally called, led to loss of 2 per cent in economic growth rates.

#### 4.8.9 Decline in natural assets and income from common resources

During the armed conflict, the condition of community forests declined. This was driven by both the rebels and the Government security forces. The rebels disturbed the activities of community forestry by forcefully taking the income from forests. Many community forest groups were pressured by the rebels to fell trees and the income would go to the rebels. The Army also destroyed the forest so that they could have a better view of the rebels. In areas where Army camps were located, the Army feared that the forest in the vicinity would provide shelter for the rebels, so they destroyed the forest. Again, this is based on anecdotal evidence and observation; there is no objective data to support this fact.

The other common process through which poor people, especially in the hills and mountains, suffered is due to the rebels' control of non-timber forest products (NTFPs), especially herbs. The rebels either collected valuable herbs by themselves or charged a heavy duty on the collection of herbs by the people. Access to herbs had been a source of 'exchange entitlements to food' for the people, but this was reduced tremendously during the armed conflict. NTFPs were one of the main sources of income for the rebels. In districts like Mugu, Dolpa, Jumla, Bhajhang and Humla where NTFPs were available, the rebels' main concern was to control NTFP collection and trade.

#### 4.8.10 Decline in community trust and social safety net

The activities of the rebels, and their indoctrination about class interests led to the decline of many forms of community based cooperation and social safety net mechanisms. The traditional moral economy was largely seen as a mechanism to exploit the underclass. There was suspicion about who was working for the rebels and who was working for the Army. This suspicion was the main reason for the decline in cooperation. As a result, the maintenance of traditional irrigation channels, trails, water sources, forests and pastures was not done. Villages started to look deserted. Landlords stopped traditional relations of *bista* (long-term labour employment relations). The micro-credit associations stopped functioning. People divided what was saved and the co-operatives were dissolved.

#### 4.8.11 Reduced access to food and services from the government and non-governmental agencies

The conflict-affected areas were also food insecure areas even before the conflict. There were a number of programmes to help people secure food and improve nutritional standards. The Government's main institution for supplying food to people was the Nepal Food Corporation (NFC). Since the 1990s, it had continued

providing transportation subsidies in remote districts not touched by roads. Even though its activities were reduced due to the Government's economic liberalisation policy, it had continued to supply some food to these areas. But the conflict led to the ceasing of its operations in these areas. Food was transported to the target area through local means (such as porters or pack animals like donkeys) and surface transportation. This was cheaper than airlifting the food. The general practice was to transport food by vehicle as far as possible and then use either porters or donkeys. But this system was vulnerable to hijacking by the rebels. After a few cases of food looting by the rebels, the Government started to airlift food. This increased the cost of food supply, and, thus, reduced the total volume of food supplied to remote areas. This was also the case with the various programmes launched by NGOs, INGOs, donors and UN agencies. When the staff of such agencies were killed or tortured, these agencies pulled their programmes from conflict-affected areas. In general, many donor agencies reduced their programmes in the conflict zones because of the risk to personnel working in such areas. This reduced the services and support (including food) available from government and other agencies. As a result, people's entitlements to food declined.

#### 4.9 Government responses to food security needs

The concept of food security has only recently been introduced in government policies and programmes. This lack of emphasis on food security is linked to the assumption held until recently that food production would lead to food security. Accordingly, policies in the past aimed at increasing the production and productivity of crops. Accordingly, until the 1970s, the words 'food security' do not appear in the government reports and documents. In the late 1970s, Nepal adopted a policy of providing basic needs to the people. Since the 1980s, the concept of food security has gained momentum. It is now increasingly used in development discourse and in practice. But, at the same time, the liberalisation policy adopted in the mid-1980s and emphasised since the 1990s reduced the scope of some of the public food distribution mechanisms (i.e., NFC) for food security. This seems against the spirit of the 1990 Constitution, which envisions Nepal as a welfare state, and in its directive principles the Government of Nepal is supposed to work for the welfare of people, which also includes meeting their food security requirements. During the armed conflict, the Government had no special plan to meet the food security needs of conflict victims. There was some support for internally displaced people, but this again went to the politically powerful. The Government was wary of the fact that food security programmes in conflict-affected areas gave the rebels access to food. As a result, there were restrictions on the transportation of food to conflict areas. Even during the conflict, the Government continued with the liberalisation policy pursued since the early 1990s.

The full impact of liberalisation principles can be seen in the Ninth Five Year Plan (1997-2002), which embraced the APP as the strategy for agricultural development and food security. This plan aimed to bring about a broad-based growth in the economy and to reduce poverty and food insecurity. The long-term concept of the Government in the Ninth Five Year Plan regarding food security through government support includes:

- To create an environment for the regular, adequate and accessible supply of essential goods
- To monitor the quality, availability and price of essential goods to protect consumers' rights
- To make arrangements for food security through maintaining the buffer stock of food at the regional level
- To prevent black marketing, creation of artificial shortages and profiteering on consumer goods in general and essential goods in particular

The policies adopted in the Tenth Five Year Plan (2002-2007) seem to be a continuation of the Ninth Five Year Plan. The main objective of this plan is to reduce poverty through broad-based economic growth. In agriculture, this has been emphasised by following the APP. Apart from mentioning that the Government would continue to supply food, salt and sugar to remote areas, there is no specific policy related to food security. Similarly, this plan aims at reducing the burden of subsidies in remote areas by improving agricultural production, resource management, skill development and employment opportunities. The Government also has a plan to encourage the establishment of cheaper stores through people's co-operatives.

Despite a clear lack of an action plan, there are, however, some governmental and non-governmental programmes to provide some targeted food security measures. These are discussed here below.

#### 4.9.1 Transport subsidy are food grains for people in remote areas

The NFC is mainly responsible for providing food to remote food deficit areas. The Government provides a transport subsidy for this work. NFC was developed from an institution created to supply food to the security forces; later, it supplied cheap food to civil servants. In 1972, when there was famine in the Kamali region, this institution (under a different name at that time) was given the special task of airlifting and distributing food in that region. In 1974, the NFC was created and the task of supplying food (with transportation costs subsidy) was expanded to other

food deficit districts. The Government earmarks part of the budget every year to NFC (via the Ministry of Supply) to provide transport subsidies. Until now, the NFC has been providing food (subsidised) to 38 remote districts. The main concern with the NFC is that it is neither cost effective nor do its services reach the neediest people. The liberalisation policy adopted since the 1990s has also reduced the scope of the NFC's work.

#### 4.9.2 Food-for-work programme

The Rural Community Infrastructural Works (RCIW) programme is a major programme that provides food for labourers working to develop infrastructure required for the community. The RCIW helps in creating seasonal employment for villagers. Beneficiaries are employed in developing sustainable infrastructure identified as necessary by the communities themselves, particularly the poor and women. Literacy and other social activities are also carried out in order to empower people and improve the management of infrastructure. This is done to improve the participation of people, because it is generally felt that food-for-work is a service delivery programme. It is estimated that every year about 30,000 unskilled labourers participate in this programme. They are paid food rations and some cash for the work performed. About 10,000 metric tons of food is provided annually through this programme. This programme is being implemented in 25 districts. In recent times, some donors (particularly DFID) have withdrawn support for the Food-for-Work programme, claiming that the infrastructures developed by local people are generally of poor quality. As a result, the coverage of this programme has been reduced.

Even though the Food-for-Work programme is primarily helpful in meeting short-term food deficits, like that of the NFC's food supply, the RCIW also assumes that its programme will lead to long-term food security. Increases in accessibility due to road construction, conservation of resources like prevention of river cutting, the protection of land and the like, will lead to food security in the long run. Even though the programme is criticised for undermining self-help initiatives, it provides a useful service to the poorest of the poor who basically become paid volunteers under the programme.

Other programmes incorporating the principle of 'food for work', whether paid in cash or in food, have been implemented in the country. They are, in general, small and scattered in different places. A few programmes of this nature have also been implemented in conflict-affected areas, but their impact and coverage has been minimal.

### 4.9.3 Other programmes

Programmes like 'school feeding' and 'relief and emergency operations' have been implemented as a part of food security for children and to reduce vulnerability during the crisis in Nepal. The World Food Programme provides support for the school feeding programme in 12 food deficit districts, in which the Government is also implementing the Basic and Primary School Programme. During emergencies created by natural disasters, food is also provided to the victims under the 'relief and emergency operations' programme.

There was no specific programme to help improve food security in conflict-affected areas. Rather, the conflict became an excuse to reduce programme activities. For example, international agencies suspended supplying food to the areas because the CPN (M) looted their supplies. The Government turned a blind eye to the food insecurity problems caused by both sides of the conflict (the security forces and CPN [M]). Programmes designed for normal circumstances faced problems in reaching needy people during the conflict. The food distributed often did not reach the target groups. If targeting is not good, there are problems in improving access to food. Targeting can be done at different geographical levels – from the region and the district to the VDC and settlement levels. Different indicators need to be developed and regularly updated to target different food insecure geographical units. At present, the NFC uses the accessibility criteria for targeting. In accessible areas (by road), the NFC does not provide any subsidy for transportation. In 2007, WFP developed a programme to improve food security in areas previously affected by the conflict.

Increasing food production by marginal or landless farmers has also been one of the approaches to reducing food insecurity. This production could be for home consumption or for sale. There are different programmes in Nepal aimed at achieving this. These programmes include the APP-SP (Agriculture Perspective Plan-Support Programme) and activities to increase access to land initiated by various INGOs and NGOs like Plan International and the Government's Poverty Alleviation Fund (PAF), Community Self-Reliance Centre (CSRC). PAF has received support from various bilateral and multilateral organisations like the World Bank. In the APP-SP, small and marginal farmers are organised into groups and grants are given for small infrastructure and support. Similarly, other programmes help women, poor, and marginal and landless farmers to form groups and lease land and provide other support for farming, mainly vegetable farming. Various NGOs have also been implementing these types of activities. However, these activities have not achieved much success because the land they lease is not their own so they do not want to invest in it.

#### 4.9.4 New emphasis on food security, especially for conflict victims

Since the *Jana Andolan* in April 2006, the popular revolt that led to political change and the signing of the Comprehensive Peace Agreement between the Government and the rebels in November 2006, more emphasis has been given to food security. The increase in the influence of civil society in policy making and the Government's commitments in international agreements to recognise food security as a basic human right have effected a policy change in this area. 'Food security' is now considered a basic human right. The Interim Constitution 2007 and the Interim Three Year Plan 2008-2010 have given priority to food security. The Interim Three Year Plan aims to meet the food security targets envisaged in the Millennium Development Goals, i.e., reduce the number of food insecure people by half in 15 years (by 2015). This Plan has called for an increase in investment in food security. However, there is still no concrete action-plan and resource allocation to meet this target. Since the signing of the Comprehensive Peace Agreement, the international community (and in particular the WFP) has also shown concern to meet the food security needs of conflict-affected people.

One of the main aims of donor activity in food security is to meet short-term needs related to food. This approach generally avoids the 'livelihood approach' to meeting food security. This means that sustainability in food security in conflict-affected areas (which are also traditionally food insecure areas) is still in question. The short-term concern of the donor agencies is not helping the sustainable food system; as a result, food deficit area's dependency on external food aid is growing. At the same time, more and more people are now facing food security problems. In 2009, about 2.2 million people were reported to be facing food security problems (The Kathmandu Post 3 June 2009, p 1 and 25 May 2009, p 7).

#### 4.10 Conclusion and recommendations

Food insecurity has been a major problem in Nepal, even before the armed conflict. The structural violence rooted in Nepalese society has put people from certain geographical areas, women, Dalits (so-called low caste), and some indigenous peoples in a vulnerable position. The conflict accelerated the food insecurity already existing in the country and among insecure groups. Even though the rebels intended to create problems only for certain groups, especially those considered to be 'class enemies' and those not supporting rebels activities, the conflict also impacted directly and indirectly on already food insecure groups. These groups became more vulnerable during the conflict. In addition, new groups who were previously relatively well off in terms of food security, became vulnerable and food insecure during the conflict. Moreover, the conflict had a disproportionate impact on

different geographical areas. The impact was more severe in remote and isolated areas (like the Mid-Western and Far West Development region, where the Maoists had their stronghold), as compared to urban and more accessible areas.

The chapter concludes that there is insufficient empirical information and theoretical understanding to explain food security/insecurity during the armed conflict. The 'livelihood approach' seems useful as it focuses on both short-term (risk to lives) and long-term (risk to livelihoods) vulnerabilities. But this approach is also incapable of understanding food security during the armed conflict as it does not adequately take into account illegal activities and changes in people's entitlements due to changes in their social-political and economic positions. In such a situation 'vulnerability' is better understood in terms of which individuals or groups have entitlements at a particular time. Conflict also increases risks generally and different groups bear these risks differently. Accordingly, their entitlements are also affected according to the risks they bear. But conflict periods also fluctuate widely, and this requires constant monitoring of the entitlement situation. Accordingly, 'food aid' should target those who lose entitlements. Asset position or ownership of assets may not be sufficient criteria for targeting the beneficiaries of such aid. However, asset position may be a good indicator of who may be able to cope with and recover from the shocks of conflict once the conflict is ended, i.e., when people are capable of using their livelihood assets. In normal conditions, however, the 'livelihood approach' of focusing on improving the livelihoods of people is valuable. Improved livelihood conditions reduce vulnerability and, thus, lead to sustainable food security.

Food security is a complex phenomenon, and it is essential to pay attention to the different dimensions of food security. Accordingly, there is no single solution to the problem of food insecurity. In Nepal, food security has been adversely affected by a host of interrelated factors, of which the armed conflict was one. Its impacts are still seen today, even though the conflict has ended. However, there are other types of conflict and violence ingrained in Nepalese society. Food security will continue to be affected by other types of conflict. Therefore, an understanding of how to work for food security during times of conflict is necessary. With regard to Nepal, other factors also need to be understood. At present, both agricultural production and food security are affected by events and processes at the international level. This is the result of globalisation. Local food systems that use diverse technical, social and economic resources need to be reinforced to improve the availability and accessibility of food produced on a sustainable basis and to ensure that it is distributed to all as a part of the 'right to food' and 'right to life'. There is also a need to interlink these local food systems at the global level, in a way so as not to abolish local systems, but to mutually support each other. Citizens should be able

to participate in shaping the food system and ways of consumption of food so that it expresses family and community values and culture. Accordingly, the following steps need to be taken for food security.

- During times of conflict, risks to entitlements increase depending upon socio-economic and political configurations. As a result, groups seemingly food secure because of their asset position may also become vulnerable. Therefore, the entitlement position of all groups of people needs to be monitored and those at risk should be supported by various means. Food aid meant to help vulnerable people is also disrupted during times of conflict. Making food security a basic human right to be respected by all parties during conflict would help in providing food aid.
- During normal times, the sustainability of food security depends upon improved livelihoods. In this situation, the livelihood approach is important in analysing the status of livelihoods. Existing food security programmes in Nepal, especially those of the donors, take a short-term 'risks to lives' approach. This is a temporary, stop-gap approach. Emphasis needs to be given to improving the overall livelihoods of people. This also means adopting mechanisms to reduce vulnerability and increase the ability to cope with the risks. While short-term solutions are important during crisis periods, they should be complemented with, or backed by, programmes aimed at livelihood improvement and creating social, economic and physical infrastructures helping to produce more and distribute food to the needy. Measures like local social safety nets may provide a solution in situations where there are 'risks to lives' or a short-term mechanism to avoid crisis. Food banks (indigenous systems like *dharma bhakari* or formal institutions like food banks) and other community assistance programmes should be developed and used as emergency measures. In Jumla in the Karnali zone, traditional *dharma bhakar*is were established and every household used to donate food on moral grounds depending upon their capacity. This food was distributed to households and individuals suffering from food crisis. It should be noted that the Karnali zone had (and has) a high vulnerability to food insecurity, partly due to climatic and geographic reasons. The formal forms of these traditional institutions could be food banks. These banks can help low-income consumers and distribute surplus food in the community. Structural measures (like land reform or guaranteed employment and increased access of poor and marginalised to resources) are needed to provide long-term food

security. Similarly, to increase the access of women, children and the elderly within households, and to increase the role of women even in changed political context, gender empowerment, equity and equal access to resources and property are important. These long-term aims improve the livelihoods of vulnerable groups.

- To reduce the adverse impact of globalisation on agricultural production and food security, it is important to reinforce or develop local food systems that interlink all the resources available within the region or locality. The food produced and distributed from such a system is hygienic, fresh and culturally acceptable. The employment or the work generated by such a system increases or retains the income within the locality. The local biodiversity and ecosystem is preserved by this system, providing more choices of food to all, including the poor and marginalised. Moreover, such a local food system also increases the control of a community or household over resources, including seeds, and is helpful in using existing local knowledge. The power of MNCs and TNCs is also reduced by promoting local food systems. The problem of food unavailability will also be less in times of crisis (like conflict) if a large proportion of the food needs are met by the local production system.
- A strong research base is required to examine and analyse new risks and potential conflicts that could happen from time to time. At present, climate change is also emerging as a new risk and a factor in new types of conflict. Climate change is expected to have an immense impact on food security and the displacement of people. Research-based policies are important to enable us to act proactively to face these new risks and conflicts.

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