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Food Insecurity and Vulnerability in Viet Nam: Profiles of Four Vulnerable Groups

**Food Security and Agricultural Projects Analysis
Service (ESAF)**

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Food Security and Agricultural Projects Analysis Service (ESAF)

Agricultural and Development Economics Division
Economic and Social Department
Food and Agriculture Organization
Italy

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Abstract

This report documents the main findings of the vulnerable profiling work carried out in Viet Nam, in cooperation with national partners and under the framework of a UNDP “Policy and Strategy for Sustainable Food Security in Viet Nam” project, as a means to support the planning of appropriate interventions at the national level. Similar studies were undertaken in Guatemala and Nepal, and related work was carried out in Afghanistan and diverse mountainous areas in connection with the International Year of Mountains (2002).

The report describes the livelihood strategies of four vulnerable groups (small farmers in the Red River and Mekong Deltas, small farmers in the Northern Region, artisanal fisherfolk in Central Coastal Region, and urban workers without stable employment), investigates the characteristics and causes of their vulnerability and how they cope, and recommends specific options to reduce their vulnerability. Given the scope and focus of this study, it could be particularly useful in supporting implementation of the national Comprehensive Poverty Reduction and Growth Strategy (CPRGS), which seeks inter alia to enhance food security and reduce vulnerability, as well as other national programmes like the 1 715 Poor Communes Programme (Programme 135, 1998-2005).

Key Words: Vulnerability, Food Insecurity, Vulnerable Groups, Livelihoods Profiling, Nepal.

JEL: Q18, Q19, O20.

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The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever of the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries

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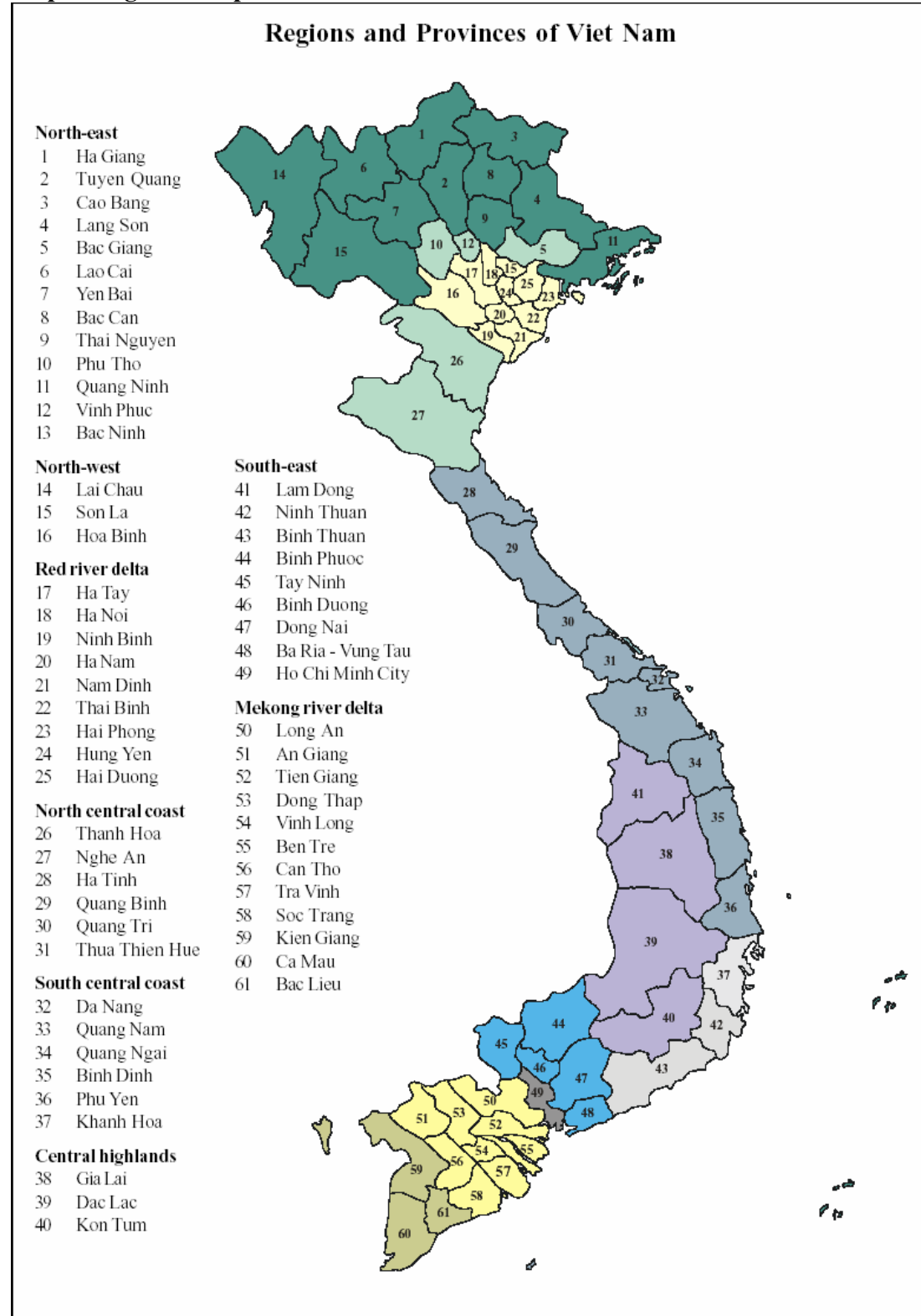
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Abbreviations

CEMMA	Committee for Ethnic Minorities and Mountainous Areas
CPRGS	Comprehensive Poverty Reduction and Growth Strategy (The CPRGS was formulated by 16 Government ministries and line agencies, in consultation with international organizations, donors and NGOs, and launched in 2002.)
DFID	Department for International Development (UK)
DPP	Department of Planning and Projection (Viet Nam)
ESAF	Food Security and Agricultural Projects Analysis Service (FAO)
FAO	Food and Agriculture Organization of the United Nations
FIVIMS	Food Insecurity and Vulnerability Information and Monitoring System
GDP	Gross Domestic Product
GNI	Gross National Income
GSO	General Statistics Office
HCMC	Ho Chi Minh City
HEPR	Hunger Eradication and Poverty Reduction
MARD	Ministry of Agriculture and Rural Development
MOLISA	Ministry of Labour, Invalids and Social Affairs
MIS	Minimum Information Set
NIN	National Institution of Nutrition
PRA	Participatory Rural Appraisal
PPA	Participatory Poverty Assessment
RPA	Regional Poverty Assessment
SLA	Sustainable Livelihood Approach
UNDP	United Nations Development Program
VWU	Viet Nam Women's Union
VLSS	Viet Nam Living Standards Survey
VGP	Vulnerable Group Profiling

Map 1: Regions and provinces of Viet Nam



1. Introduction

1.1 Purpose and structure of the document

By providing a thorough and disaggregated understanding of vulnerability to food insecurity, the purpose of this document is to inform policy and programming interventions for reducing vulnerability, as experienced by different groups of people.

Section 1 includes an explanation of key terminology and concepts used in the document and of the methodology applied during data collection. This is followed by a description of the overall food security and vulnerability situation in Viet Nam and a detailed explanation of the characteristics of the vulnerable groups identified and the sub-groups within them, including their livelihood activities, food security status, location, asset holdings, intra-household food distribution practices and population size. Trends, shocks, policies and underlying structural factors making different livelihood groups vulnerable to food insecurity are described in section 3, followed by an explanation, in section 4, of how these different groups attempt to maintain their food security when confronted with these negative forces. On the basis of these findings, the opportunities for reducing vulnerability are described in section 5.

1.2 Concepts and terminology

Concepts of food security, vulnerability and vulnerable and food insecure groups are sometimes used with different connotations in the literature and among practitioners. For the purpose of this paper, key concepts and terms are used as follows:

Food security

As defined by the 1996 World Food Summit, food security “...exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” (WFS, 1996 para. 1)

This definition integrates **access to food**, **availability of food** and the **biological utilisation of food** and the stability of these. These factors are interrelated. Having access to food means little if poor health status impinges on people’s ability to utilise the food they consume. Likewise, earning income to purchase food (access) matters less if insufficient food is available in markets. And, a well-stocked market is irrelevant to those who do not earn income to purchase food. Hence, developing policies and interventions to increase food security requires an understanding of each of these factors, their inter-relations and their relevance to particular groups of people.

Vulnerability

The “at all times” aspect of the food security definition refers to the stability of the other three food security factors over time. This can be understood through the concept of vulnerability. In the food insecurity context, this refers to the propensity to fall, or stay, below a pre-determined food security threshold¹ in the future. Vulnerability is a function of exposure to **risks/shocks** and of **resilience** to these. Risks/shocks are events that threaten people’s food access, availability and utilisation and hence their food security status². Resilience in the food

¹ Although food security is a multidimensional concept, various measurements exist for establishing a threshold. For international comparison, minimum daily intake of food and measured as calories/caput/day is often used.

² Given the focus on food insecurity, this paper mainly focus on downside risks. Risks with positive effects are in this paper referred to as opportunities.

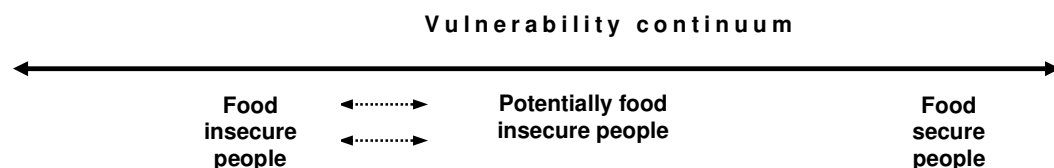
security context is determined by the effectiveness of risk management strategies at different levels (through prevention, mitigation and coping) and by the resources (household, community, extra-community) that can be drawn upon. Vulnerability correlates positively with the probability and impact of a shock and negatively with resilience and its determining factors.

Potentially food insecure, chronically food insecure and vulnerable groups

In the context of this paper, the term “**vulnerable groups**” is used to refer to both the potentially food insecure and the food insecure. Looking at both segments allows to take into account the dynamic nature of food insecurity (and poverty), and the fact that over time move people in and out of food insecurity, as shown by numerous studies (for example, Baulch, B, & Hoddinott, forthcoming; Dercon, 1999; Gaiha, & Deolalikar, 1993; Townsend, 1994). Although outcomes differ, factors making people potentially food insecure or maintaining people in food insecurity are often the same (FAO, 2000). **Potentially food insecure groups** include people who are “living on the edge” of food security. Although they are not food insecure at the specific point in time at which their food security is assessed, it is highly probable that they will become so. People in this group face a risk of being exposed to a negative shock/trend that, given their risk management capacities, make them food insecure. Those able to recover from such shocks are considered **transitory food insecure**. **Chronically food insecure groups** are comprised of people who already today are below a food security threshold and who are unlikely to emerge from this in the foreseeable future. The potentially food insecure and the food insecure can therefore be considered to form a non-discrete food security continuum. Moves along this (i.e. from food insecurity to potential food insecurity and vice-versa) are highly dynamic (see Box 1).

Box 1: Vulnerability continuum

Vulnerable people are extremely sensitive to shocks and transitory food insecurity. Seasonal events (such as floods or limited food availability in the pre-harvest period) or unforeseen circumstances (like work-related accidents or illness) cause them to become food insecure temporarily when their ability to manage a shock is weak. When potentially food insecure people can no longer meet their minimum food needs, because the negative influences they face are too high and/or their risk management capacity is weak, they become food insecure. The transition from potential food insecurity to food insecurity (and from food insecurity to potential food insecurity) is very dynamic and can occur rapidly.



A livelihoods approach to food security analysis

A working definition of livelihoods, provided by Ellis (2000: 10) is:

“...the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household”.

The vulnerable group profiling technique presented below specifically draws from the sustainable livelihoods approach (SLA) developed by DFID. The SLA provides a lens for analysing how people go about maintaining a livelihood. It helps in analysing how people combine the different assets to which they have access in order to pursue activities to attain a livelihood objective, within the policy and vulnerability context within-which they are embedded. The SLA is a multi-sectoral approach that allows to take into account the multidimensionality of factors that determine food security. It provides a way of looking at the macro-, meso-, micro linkages, thereby accounting for the fact that household food security is determined by household-level factors such as a household's food production but also by macro-level factors such as inflation, devaluation, changes in world markets etc. In this way, the appropriate type and best level of interventions for improving food security can be identified. The participatory principles underlying the SLA mean that through its application the perspectives of different stakeholders, including those whose food security is being analysed, are included in the analysis. This contributes to increasing the ownership and accuracy of findings and thereby the success of the ensuing interventions.

1.2 Methodology used to identify vulnerable groups in Viet Nam

The process and methodology applied in profiling vulnerable groups in Viet Nam is described below.

National-level workshop for the preliminary identification of vulnerable groups

An initial national-level workshop was carried out to identify the main vulnerable groups. The workshop saw the participation of officers from different institutions, including the Ministry of Agriculture and Rural Development (MARD), the Ministry of Labour, Invalids and Social Affairs (MOLISA), the National Institute for Nutrition (NIN), the Women Union (WU) and the General Statistical Office (GSO), under the coordination of MARD, and other stakeholders. It provided a preliminary national classification of the main vulnerable groups located throughout the country. While a review of secondary literature could also have perhaps brought the same results, the interdisciplinary workshop was considered important. People brought perceptions and insights to discussions that would otherwise have been missed through a more formal study.

This workshop allowed to identify *who* were some of the vulnerable groups, but only provided a first-cut understanding of *why* they are vulnerable and thereby how their vulnerability could be reduced.

Review of literature and key-informant interviews to develop preliminary profiles

Of the seven vulnerable groups identified during the national-level workshop, four were selected for more detailed profiling³. Each profile was assigned to a multidisciplinary team of three members from different agencies who received training from the visiting Team Leader of the project. To guide data collection for each of the vulnerable groups, a minimum information set⁴ was used. Data collection involved reviewing secondary sources and interviewing, in Hanoi, key informants from national ministries and line departments, research institutes, mass organizations⁵, bilateral donors, international development organizations and projects.

Because the initial categories of vulnerable groups were fairly broad, there were significant differences within each group with respect to the causes of vulnerability. In order to obtain a more thorough understanding of the different causes of vulnerability the initial groups were divided into sub-groups based on degree of vulnerability. Information gaps for each of the sub-groups became more obvious and guided additional data collection. Each of the sub-groups was described along the following dimensions:

- Incidence of low food intake, health status and symptoms of malnutrition
- Household characteristics and assets
- Access to support services and infrastructure within the community
- Influence of economic and environmental conditions on household behaviour
- Influence of customary beliefs on household behaviour
- Influence of political structures, public policies, development programmes and projects, laws and regulations on household behaviour
- Livelihood strategies, care and feeding practices, health and hygiene practices and risk management strategies of households
- Forces of change (e.g. positive developments and trends, acute and chronic risk factors)
- Strengths, weaknesses, threats and opportunities

Key informant interviews at provincial and district levels

With the purpose of validating the sub-group classification and filling information gaps, additional data was collected in eleven provinces⁶ that had been selected as representative of different types of poverty and food insecurity contexts. In each province, meetings were held at provincial and selected district level with local authorities and officers from line agencies, mass organisations, relevant institutions and projects. During the meetings the geographical distribution of people and resources was investigated and a series of field-sites were selected for community-level focus-group discussions and individual interviews.

³ Due to resource limitations, only four groups could be addressed in this study. The groups were selected for their larger size and as representative of different livelihood conditions. After the fieldwork the vulnerable group classification was revised and one VG was split, bringing the total number of VG to eight. The four VG for which profiles could not be prepared are the following: small farmers of the Central Highlands, farmers living in disaster-prone areas of Central Viet Nam, rural contractual labourers outside the agricultural sector, and people living on social entitlements.

⁴ The Minimum Information Set describes typical characteristics of households within a particular vulnerable group and provides information about the various factors that affect their food security situation and household members' access to food, as well as their health status and uptake of food (FAO, 2000).

⁵ Mass or socio-political organizations (such as the Viet Nam Farmers Association and the Viet Nam Women's Union) have a large membership and widespread network from the central to the local level.

⁶ Thua Thien Hue, Quang Tri and Quang Nam (in Central Viet Nam); Nam Dinh, Ha Nam and Ha Tay (in the Red River Delta); Tuyen Quang and Ha Giang (in the Northern Region); Dong Thap, Tra Vinh and Can Tho (in the Mekong Delta).

Community-level focus group discussions

Field work was carried out with the support of an international consultant on participatory appraisal, from August to November 2001. Participatory rural appraisal (PRA) techniques as well as interviews and focus-group discussions with members of vulnerable households were used to obtain information about diet, health and hygiene patterns, expenditures, productive activities and incomes, seasonal patterns, risk management strategies, customary behaviours and other relevant livelihood aspects.

Enumeration of the vulnerable groups

Once the sub-group classification had been established, a broad estimation of the number of people in each sub-group and of their location along the vulnerability continuum (Box 1) was made by using poverty as a proxy indicator and by matching the vulnerable groups to occupational categories and asset holdings used by the GSO (Box 2). Three sources of data were particularly useful for this purpose:

- data on the percentage of the urban and rural population (by region) under the general poverty line and food poverty line, calculated by the GSO and the World Bank on the basis of the two VLSS; and
- provincial-level poverty estimates that combined data from the VLSS and population census (Minot & Baulch in 2001).
- annual surveys and poverty data from MOLISA

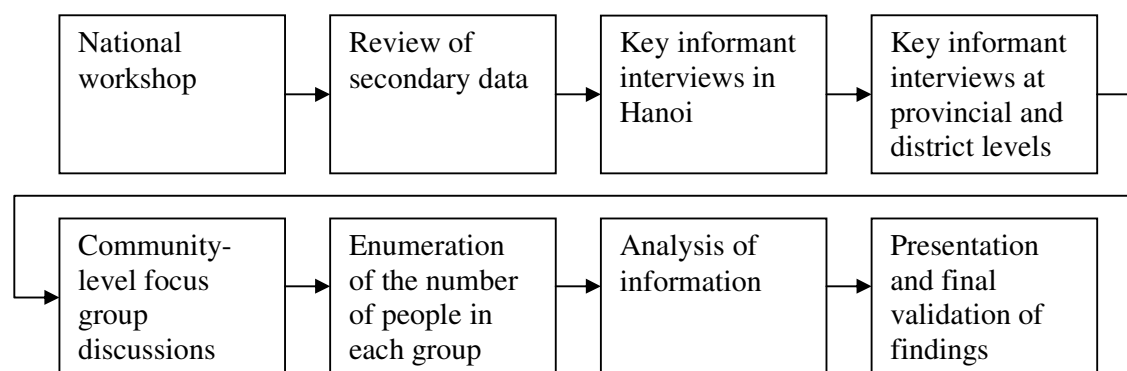
For the artisanal fisherfolk, poverty could not be utilised as a proxy indicator since they represent only a small percentage of the rural provincial population. For this vulnerable group, another method of indirect enumeration was used based on the vessel size, which is the main characteristic utilised for the sub-group classification. Difficulties were encountered because data disaggregated by vessel category were not available at central level. However, they could be found in the few provinces visited although each province used different vessel classes.

Enumerating the vulnerable groups was made difficult by the shortage of specific data and the inability to find key informants who could provide reliable estimates of group size by province or region. Although the estimates produced by this approach should be treated cautiously also because of the age of the census data, this was considered a viable approach for gaining an understanding of the relative size of each groups. Also, the location of sub-groups along the continuum is flexible and dynamic (reflecting the nature of the relationship between food security and vulnerability as illustrated in Box 2).

Presentation of findings

The initial outcomes of the vulnerable groups profiling work were presented at a national seminar on food security in Hanoi in November 2001. This provided an opportunity for officials from national institutions, international projects, multilateral agencies and NGOs to discuss the profiles. The findings were also presented in the local consultative group on food security.

Figure 1: Key steps in profiling



Box 2: Using income as a proxy indicator of food security

Using poverty as a proxy indicator involved investigating how dietary patterns change in relation to level of income for each of the sub-groups. This was achieved through a rapid appraisal where information on food items, expenditures and income were collected by interviewing key informants and a limited number of households for each vulnerable group. Through this exercise, it became evident that the amount of meat and fish consumed provided a quick indicator of the dietary pattern and clearly correlated with income. Once the relationship between food insecurity and household income level for the different sub-groups became clear, the size of each sub-group was calculated based on the poverty rates and asset ownership/income within the occupation group. Households were subsequently classified along the vulnerability continuum as food insecure or potentially food insecure.

In the present study the food security threshold corresponds to the level of income which enables a typical family of a given group to eat a diet similar to the standard diet identified in the Vietnam Living Standard Survey. The standard food basket of 2100 calories per day is based on the average food consumed by Vietnamese people according to the VLSS 92/93. It has been used by the WB and GSO to identify food insecure people by linking it to a given level of per capita expenditures, which is the same nation-wide. Families are considered under the food poverty line when their expenditures are equal to the cost of purchasing the food items included in the standard food basket, therefore non-food expenditures are made at the expenses of an adequate nutritional intake. To calculate the general poverty line, essential non-food items are included (Te B.Y. and Duong V.D. 2000).

During the rapid appraisal expenditures and earnings were analysed and crosschecked to determine the family income level. Local prices were used and food produced and consumed by the family was included. The results show that it is not possible to use the same monetary parameter all over the country and that it is necessary to adjust this parameter by determining the threshold level for each vulnerable group based on livelihood conditions. The threshold of food security changes between rural and urban areas. Although the sample size was relatively small, the results were nevertheless consistent with available statistics on malnutrition, which show higher relative incidence of malnutrition vis-à-vis poverty in urban areas (see section 2.5 and Box 7).

2. Who are the vulnerable in Viet Nam?

2.1 Vulnerability in Viet Nam – the context

During the past decade, Viet Nam has achieved remarkable progress in expanding agricultural production and increasing incomes. Rice production increased dramatically following the distribution of agricultural land to rural households, increased integration of agriculture in the market economy and other economic reforms, transforming Viet Nam from a net importer into the world's second largest exporter of rice.

The achievements made in poverty reduction have also been impressive. Poverty fell from 58 percent of the total population in 1993 to 29 percent in 2002, enabling as many as 20 million people to move out of poverty in less than ten years (World Bank 2003). However, grain self-sufficiency has been achieved at the aggregate level and a large number of people have been able to escape poverty; many others still do not have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and cultural preferences to

have an active and healthy life. Others are likely to become food insecure following small to moderate changes in their household production, income or health.

Box 3: Viet Nam at a glance

Population: 79.5 million
 Population per sq. km: 241
 Population growth: 1.2%
 Life expectancy: 69.4 years
 Child malnutrition (% under 5): 34 (1996-02)
 Illiteracy (% pop. aged 15+): 7 (1996-2002)
 Gross National Income per capita: US\$410
 Agriculture (% of GDP): 23.2
 Exports of goods and services (% of GDP): 54.7
 Imports of goods and services (% of GDP): 56.8
 Economic growth: 7% (2003 estimate)
 Note: Figures for 2001 unless otherwise indicated

Source: www.worldbank.org.vn

Vulnerable groups are located throughout the country and involved in different occupations. They belong to different ethnic and age groups, and include men and women. As a group, ethnic minorities – mainly located in isolated upland areas – stand out as being particularly vulnerable. As illustrated in Table 1, rural food poverty was estimated at 13.6 percent in 2002. Among ethnic minorities, food poverty stands at more than forty percent and has shown almost no decline over the last four years.

Table 1: Poverty, food poverty and child malnutrition in Viet Nam (as a share of the population)

By Area and <i>Ethnic Group</i>	General Poverty Rate		Food Poverty		Stunting (low height/age < 5 years)	
	1998	2002	1998	2002	1987-89	2000
Urban	9.2	6.8	2.5	1.9	49.0	24.6
Rural	45.5	35.6	18.6	13.6	59.4	42.6
Mountainous areas	-	-	-	-	48.8	45.1
<i>Kinh and Chinese</i>	<i>31.1</i>	<i>23.1</i>	<i>10.6</i>	<i>6.5</i>	<i>N/B</i>	<i>N/B</i>
<i>Ethnic minorities</i>	<i>75.2</i>	<i>69.3</i>	<i>41.8</i>	<i>41.5</i>	<i>N/B</i>	<i>N/B</i>
National	37.4	28.9	15	10.9	56.5	33.8

Note: The food poverty line is calculated by the World Bank and General Statistics Office (GSO) based on the level of expenditure needed to buy food (rice and non-rice) to provide 2 100 calories per person per day.

Source: World Bank (2003) and WHO (2003)

Table 2: Poverty, food poverty and child malnutrition by region

Region	General Poverty (2002)		Food Poverty (2002)		Stunting (low height/age < 5 years) 2000
	Rate (%)	Share (%) of total poor	Rate (%)	Share (%) of total poor	
North East	38.4	16	15.4	17	41.5
North West	68.0	7	46.1	11	43.9
Red River Delta	22.4	17	5.3	11	31.9
North Central Coast	43.9	20	17.5	22	44.1
South Central Coast	25.2	7	9	7	36.9
Central Highlands	51.8	10	29.5	16	49.9
South East	10.6	5	3	4	26.9
Mekong Delta	23.4	17	6.5	13	34.0
National	28.9	100	10.9	100	33.8

Note: Poverty rates are measured as a percentage of the population.

Source: World Bank (2003) and WHO (2003)

NOTE: Tables 1 and 2 provide the general context and the trend of poverty reduction in Vietnam but do not provide in-depth information on the actual situation of the identified vulnerable groups. As already explained food insecurity in the present study is different from food poverty as calculated by the VLSS. Another point to remark is that the study was conducted in 2000-2001, before the 2002 VLSS.

Although the incidence of poverty is higher in the Central Highlands, Northern Mountains and North Central Coast (see Table 2), because of higher population density, the absolute number of poor people is higher in the two delta areas than in the remote areas. Rural migrants living in urban areas are another group at high risk of food insecurity. Bigger households, and especially those with more children, more elderly members, or where a spouse is missing, also tend to have a lower level of expenditure per capita (World Bank 2003).

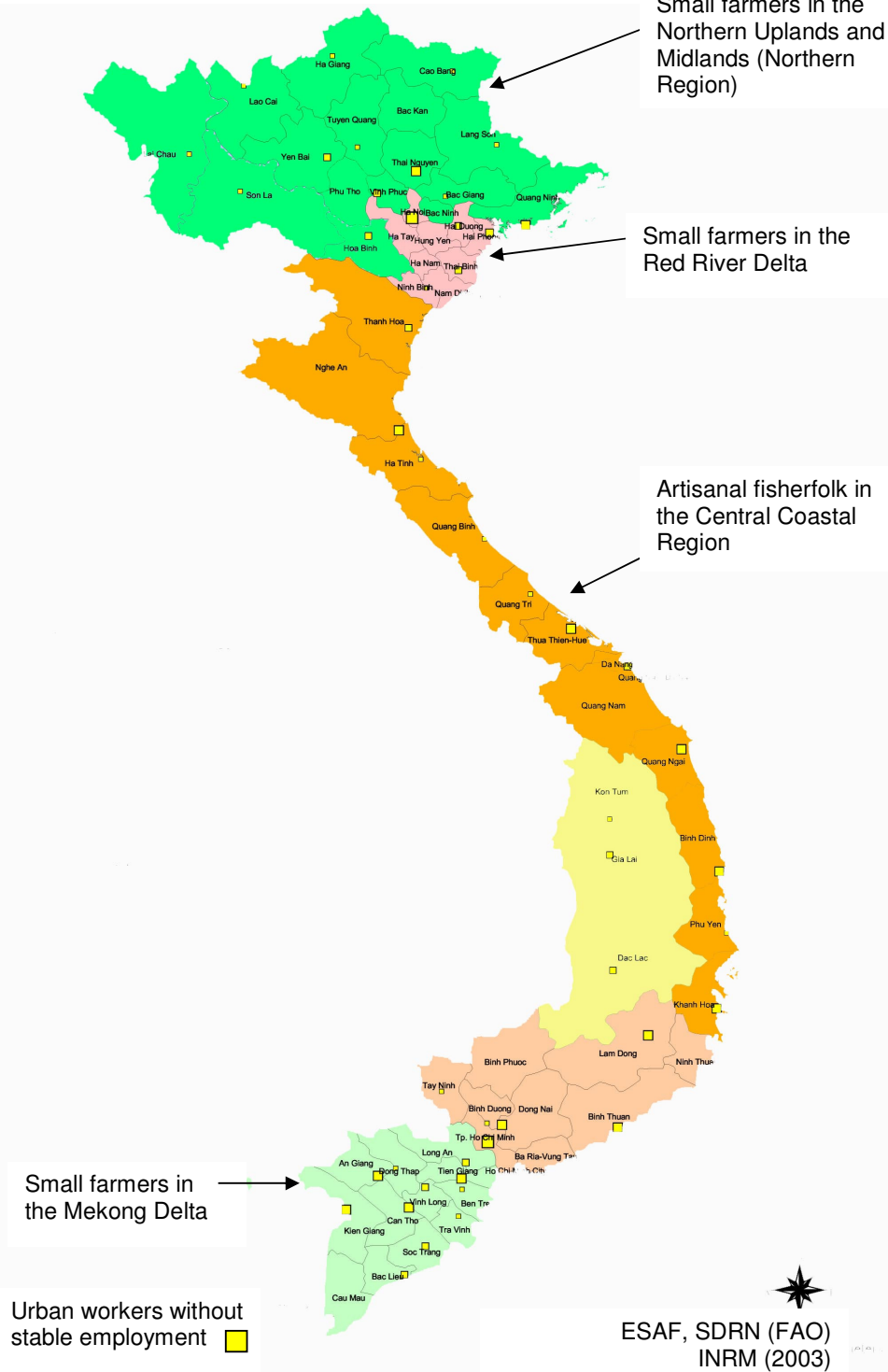
Using the Vulnerable Group Profiling methodology, the four groups listed below, spread throughout the country, were identified as particularly vulnerable (see Map 2 and Table 3):

Table 3: Population size of vulnerable groups

Vulnerable Groups	Population size (millions)
Small farmers in the Red River and Mekong Deltas	8.7
Small farmers in the Northern Uplands and Midlands (Northern Region)	6.2
Poor urban workers with unstable occupations	3
Artisanal fisherfolk in the Central Coastal Regions	0.4

Each of these groups is located in a specific geographical region with particular agro-ecological conditions, production patterns and social structures. Taken together, these four groups comprise 23 percent of the national population. The two largest groups are the small farmers of the Mekong and Red River Delta (11 percent of the country's population) and small farmers of the Northern Region (8 percent). Poor urban workers account for 4 percent and artisanal fisherfolk for 0.5 percent of the national population.

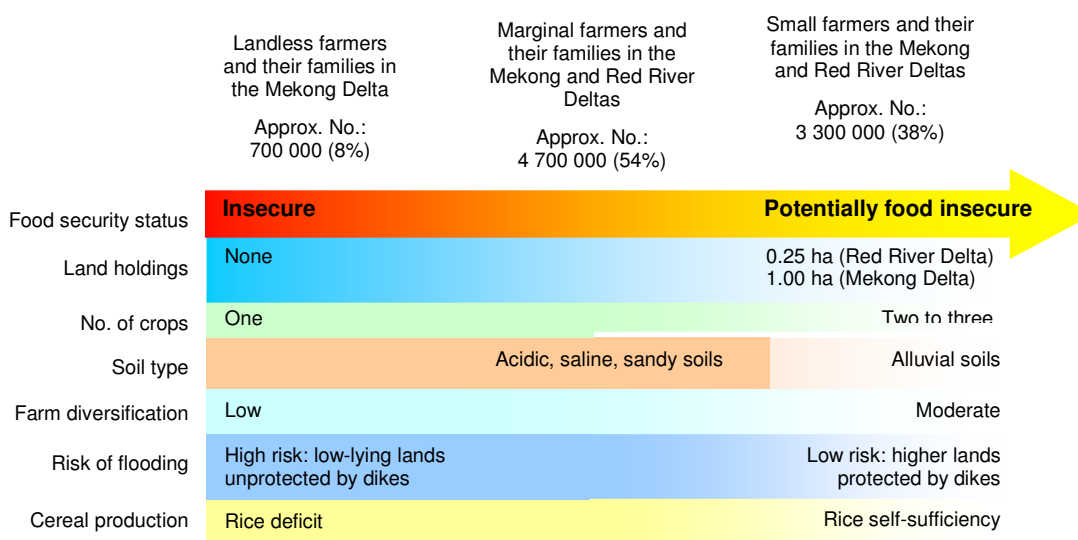
Map 2: Location of Vulnerable Groups



2.2 Small farmers in the Mekong and Red River Deltas

Some 8.7 million people belonging to small farm families in the Mekong and Red River Deltas, equivalent to 28 percent of people in the deltas, are estimated to be food insecure or potentially food insecure. They include landless farmers in the Mekong Delta who rely on casual employment for their living, as well as marginal and small farmers in both deltas (see Figure 2). Approximately one in five of these households are female-headed and more likely to be vulnerable than male-headed households. Although the principal livelihood of these groups is agriculture, long-term migration by a son or daughter to work in manufacturing or construction in urban areas has become a common livelihood diversification strategy for a significant number of households. These sub-groups were identified within this group. Some key characteristics of the sub-groups can be seen in Figure 2

Figure 2: Vulnerability continuum for landless and small farmers in the Red River and Mekong Deltas



Landless families in the Mekong Delta are the most food insecure households within this group. They rely on work as hired labour, such as helping with rice production, cash crops or digging shrimp ponds in coastal areas, for their living. During the off-season, when jobs are scarce, seasonal migration plays an essential role in their livelihood strategy. Often, the whole household migrates to other agricultural areas or towns in search of work. Landless households spend a disproportionate share (as much as 70 to 80 percent) of their income on food. When the floods arrive, fishing provides an important source of income and many become full-time fisherfolk. Given the precariousness of their work and income status, landless households are unable to satisfy their basic needs during most of the year. Their diet is poor and incidences of chronic food insecurity are widespread. Most face prolonged food shortages during periods of little work. Many cannot afford to keep their children in school or to seek health care when needed.

Marginal farm families in the Red River and Mekong Deltas generally depend on irrigated rice production for their livelihoods. They usually farm entirely on marginal lands or have most of their plots on these lands. Risks include uncontrolled flooding, saline intrusion, and oxidation of acid sulphate soils with consequent acidification and release of iron and

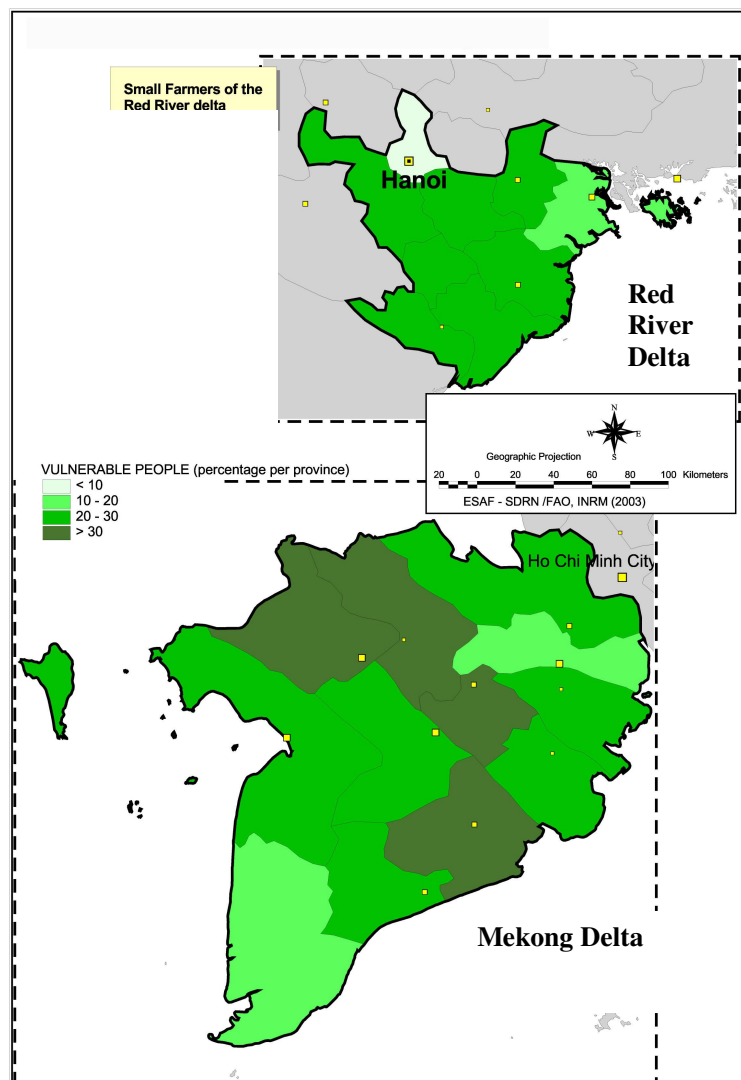
aluminium toxicity. In some areas, particularly in the Mekong Delta, there are sandy farmlands not reached by irrigation. Although some produce just enough for home consumption, others with land that is less productive or liable to flooding, or with large debts to service and repay, are unable to cover their food needs. Net annual profits for marginal farmers were reported to be approximately US\$90-130 per hectare in the Mekong Delta and US\$200-400 per hectare in the Red River Delta (without accounting for non-cash inputs such as family labour and manure). Despite higher profits in the Red River Delta, most households earn just enough to pay for inputs and meet their needs because of the small size of their holdings. To help ends meet, many marginal farmers in the Mekong Delta fish or collect crabs in rice fields, or take jobs locally as hired labour. Sometimes one member of the household migrates seasonally in search of work. In the Red River Delta, given the scarcity of local wage opportunities, seasonal migration is common. Men migrate to urban areas to look for jobs in construction, while women sell fruit and vegetables. Households in both deltas are also involved in both petty trading, handicraft production and raising pigs, generating some extra income and liquid cash assets for times of need.

Inputs absorb the largest share of profits. Any remaining money is spent on food, education, health services and other basic needs. Their diet is based on rice, vegetables and fish sauce with as much as 80 percent of the caloric intake coming from rice, compared with the national average of 65 percent (FAOSTAT). In the Mekong Delta, families eat more fish and occasionally fruit. Yet, half of the households in both deltas cannot meet their daily minimum calorie and protein requirements. Among households with debt, the risk of becoming landless is high. The majority of marginal farm households are ethnic Vietnamese. However, in the Mekong Delta, Khmer households, who farm on sandy soils without irrigation and have just one low-yield rice crop per year, account for some of the most vulnerable people in this sub-group.

Small farmers in the Red River and Mekong Deltas are somewhat better off than marginal farmers and are normally able to cover their household's rice needs for the entire year. Able to afford high-yielding varieties of rice and more fertilizer and pesticides, their intensive production achieves superior yields. These households have also diversified their production into fish ponds, livestock and/or cash crops that are more profitable than rice. With higher incomes and larger plots, they can usually store enough of their rice harvest to meet their family's needs and in addition sell surpluses for cash. Often a young boy or girl within the household migrates to urban areas to work in construction or factories. Expenditure patterns are similar to those of marginal farmers but, unlike the former sub-group, small farmers are also able to save a little money, often invested in improvements to their dwelling or income diversification. Small farm households usually have an adequate per capita consumption of rice and eat a wider range of vegetables and some fruit. However, even though they do not normally experience food shortages and eat some high protein foods (fish, tofu, eggs or meat) several times each week, their intake of proteins is insufficient and their diet moderately poor.

The largest concentration of vulnerable people in this group are found in Ha Tay and Nam Dinh provinces in the Red River Delta, and in An Giang, Dong Thap and Can Tho provinces in the Mekong Delta (see Map 3). In terms of incidence, the southern provinces tend to have higher rates of vulnerable people in relation to the total provincial population.

Map 3: Distribution of small farm families by province in the Red River and Mekong Deltas

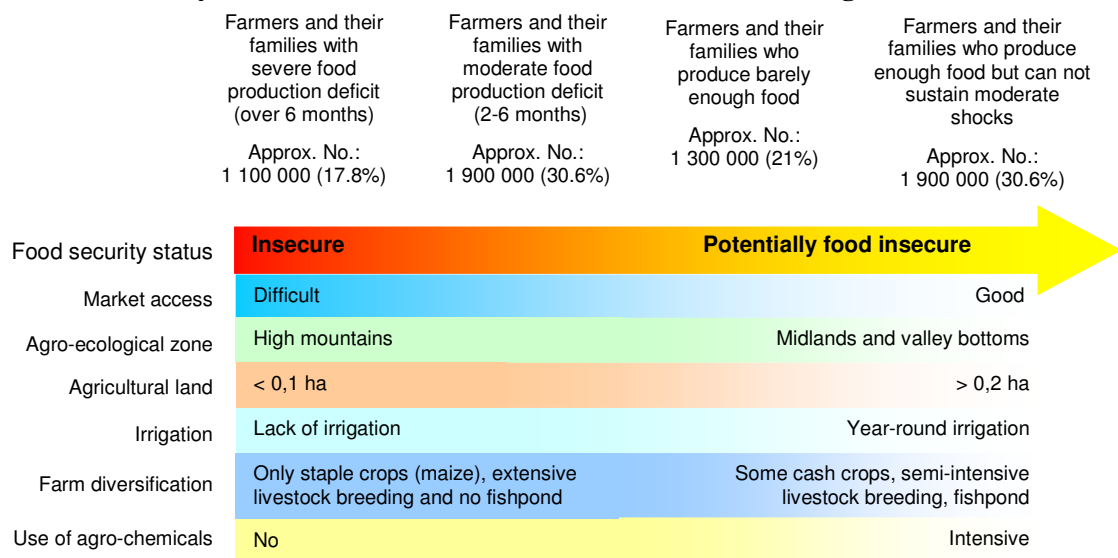


2.3 Small farmers in the Northern Uplands and Midlands (Northern Region)

Approximately 6.2 million people from small farm households in the Northern Region, equivalent to 58 percent of the total farming population of the Northern Region, are food insecure or potentially food insecure. They include households with large and moderate food production deficits, households who produce barely enough food to cover their household consumption, and households with sufficient production who are susceptible to shocks (see Figure 3). Ethnic minorities are the most food insecure people within this group. However, one third of the vulnerable population is estimated to be ethnic Vietnamese (*Kinh*) who migrated to this region after 1954, spontaneously or under national resettlement programmes. The largest share of this group live in the provinces of Son La and Bac Giang (see Map 4). As a proportion of the provincial population, the largest share of vulnerable people is found in the four remote border provinces of Son la, Lai Chau, Ha Giang and Cao Bang.

The size of the four sub-groups was calculated on the basis of data from different sources. The number of farmers with severe and moderate food production deficits was extrapolated from data on the number of households facing different food deficit periods provided by the Committee for Ethnic Minorities and Mountainous Areas (CEMMA). The number of farmers who produce barely enough food, eat a poor diet and hardly meet caloric requirements was estimated using data on households that live below or just above the 1998 VLSS food poverty line, which for this vulnerable group provides a true indication of food insecurity. As indicated by the rapid appraisal and poverty figures, this vulnerable group includes households producing enough food and eating a more diversified diet but whose food security status can be affected by moderate changes in income. Figure 3 shows the main characteristics of the four sub-groups of farmers along the food security continuum.

Figure 3: Vulnerability continuum for small farmers in the Northern Region



Food production among *farmers with severe food production deficits* covers less than six months of annual consumption needs. Generally located in remote mountainous areas with difficult terrain, limited agricultural land, insufficient water for farming and domestic use, very few off-farm opportunities, poor infrastructure and hardly any roads, most of these households are ethnic minorities (such as *H'Mong* and *Dao*) that depend on slash-and-burn farming for their living. At higher elevations, maize is the main and often only crop grown. Households living at lower elevations can also grow rice, wheat, buckwheat and cassava. Fertilizer is seldom used and the uneven distribution of rainfall reduces crop production. Whenever possible, households keep some pigs and poultry for home consumption and as a buffer for emergencies. However, the scarcity of fodder, which must be collected and transported over considerable distances, is a problem, and the need for grazing land limits options to grow a second crop. The collection of minor forest products (such as bamboo shoots, mushrooms, firewood, game meat, medicinal plants, broom grass and rattan.) provides an additional source of income and food. Distilling alcohol is another way to earn money but it requires a considerable amount of grain, which is scarce. Other income-generating activities include gold panning, the production of charcoal and handicrafts. Given their distance from markets, households are usually forced to rely on traders to sell their goods.

Farmers with moderate food production deficits cannot cover their food needs for two to six months of the year. Although most belong to ethnic minorities, this group includes a small percentage of ethnic Vietnamese. Living in mountain districts at medium altitudes (the zone between the plains and the highest land) and cultivating narrow terraces on steep slopes or land on valley bottoms, irrigation is mainly seasonal, second crops possible only in small areas and yields low. The availability of agricultural land is generally scarce (0.1-0.15 hectares per family) so growing crops on swidden land, which sometimes involves a move for the entire household to distant areas, is often important. Although some households or hamlets have small gardens growing fruit trees or tea, marketing these products is difficult and earnings limited. Sometimes families own one or two cattle or buffaloes (for ploughing and manure), a few goats or a fishpond. Some households fish in streams for home consumption. As with the more food deficit families, pig breeding and non-timber forest products provide another source of income.

Households with severe and moderate production deficits have a high number of children and elders per income worker (on average there are six to seven members including three to five children and an elderly person in every second family). The diet of these households is poor and unbalanced, and becomes worse in quantity and quality during the lean season when caloric intake can be less than 20 percent below the required minimum. Malnutrition, especially among children under 5 years, is much higher than the national average, reaching 46 percent in cases of stunting. Goitre is endemic due to a lack of iodine and is particularly severe among women and people living at high elevations.

During periods of food shortages, households with severe and moderate production deficits eat less nutritious foods including sweet potatoes and cassava, as well as wild roots and tubers collected in the forest. Sometimes, they are able to buy or barter for grain. Families that are officially classified as poor⁷ occasionally receive assistance from public institutions but many are obliged to take out loans to survive. Adults usually eat two meals per day and children three. When there is a severe food shortage, priority is given to the youngest children and adults may only eat one meal in the morning. For cultural reasons, women tend to eat less and give priority to other members of the household (this is not specific to this group but it is common among all groups). Malnutrition among women is consequently high.

Farm families on the borderline of food deficit and those who produce enough food but are susceptible to shocks live at elevations below 200 meters in the midland provinces⁸ and in the alluvial valleys of mountainous provinces. They comprise both ethnic minority and ethnic Vietnamese households, though minorities make up the largest share of the more vulnerable sub-group. The warmer climate, abundant water resources and better accessibility permit farm diversification and some cash crop production. Farming systems are differentiated by size and quality of irrigated land, intensity of rice cultivation and degree of diversification. Terraces are flat and well maintained and average irrigated areas per household range from 0.15-0.25 hectares. Households generally apply modern techniques and make extensive use of high yielding varieties, fertilizer and pesticides to grow two crops each year (spring and summer rice or spring rice plus a secondary crop). Most also have swidden fields or gardens on moderate slopes nearby that are used for various crops and fruit trees. This production supplements food supplies between harvests, provides feed for animals or is sold for cash.

⁷ es. The classification used is based on data and criteria developed by MOLISA. The official poverty lines in 2001 were VND 80 000 in rural uplands and island regions, VND 100 000 in rural plains and VND 150 000 in urban areas.

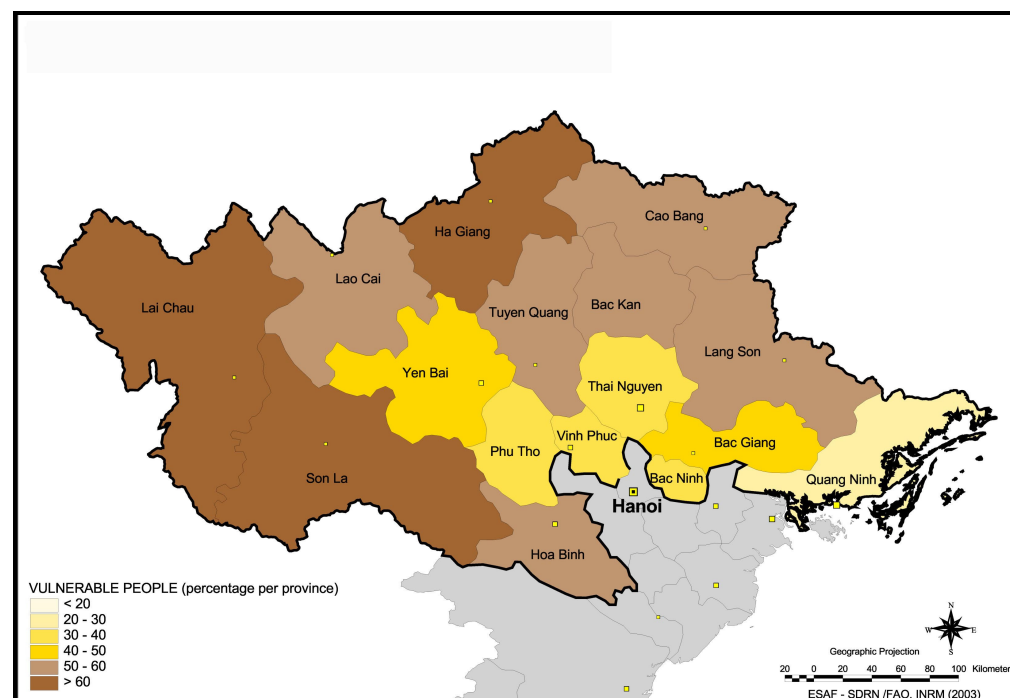
⁸ Vinh Phuc, Ha Bac and Bac Thai provinces and parts of Tuyen Quang, Yen Bai, Hoa Binh and Quang Ninh provinces.

However, most gardens owned by the more vulnerable households in this sub-group are poorly managed due to inadequate knowledge and soils are often degraded. Families with better managed and more productive gardens can generate a greater income from horticulture and are considered less food insecure. Livestock, especially pig fattening, provides a regular source of cash. Most households have one or two buffalo or cattle and a fishpond. Some have additional sources of income including wage labour, handicraft production, petty trading, collection of forest products, or repairing agricultural tools or bicycles.

Although these households have more differentiated farming systems, some produce barely enough for home consumption and might not be able to satisfy their basic caloric needs in the period before the harvest. Even when they have enough food, many of these families are considered food insecure given their poor and unbalanced diet in which some 85 percent or more of calories are derived from cereals, roots and tubers⁹, and because consumption of meat, eggs, fish, beans, fruit and vegetables is insufficient.

Households that produce enough food but are exposed to shocks (the least vulnerable sub-group in this group), eat a more balanced diet than people in the other three sub-groups. However, their diet is still poor since starch from cereals, roots and tubers provides about 80 percent of their calories. Families in this sub-group are considered vulnerable because their dietary pattern can easily worsen in case of moderate shocks such as loss of crops or livestock, price fluctuations, a reduction in off-farm income or health problems resulting from malaria or other serious diseases.

Map 4: Distribution of small farm families by province in the Northern Region



⁹ According to the Desirable Dietary Pattern developed by FAO for the Asia Pacific Region, calories from cereals, roots and tubers should not exceed 60 percent of total dietary intake (FAO/RAP 2001).

2.4 Artisanal Fisherfolk in the Central Coastal Regions

An estimated 370 000 people in artisanal fisher households, equivalent to 2.2 percent of the population of the Central Coastal Regions¹⁰, are food insecure or potentially food insecure. Artisanal fisherfolk were classified into three sub-groups according to the size of the vessel they own or work on using provincial data (see Figure 4 and Map 5). They include: i) fisherfolk with occasional employment or with small boats with no or very low capacity engines; ii) fisherfolk working on boats with small engines 12-30 Horse Power (HP) and iii) fisherfolk working on medium sized boats with larger engines (30-70 HP).

Box 4: A typical fisher household

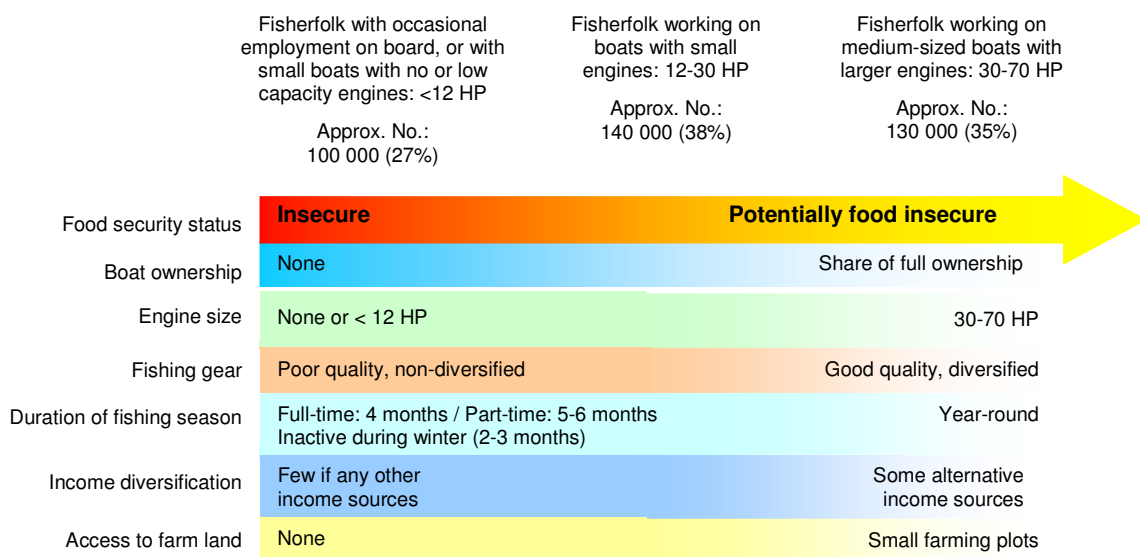
A typical fisher household is ethnic Vietnamese with five to six members including three children and an elderly person. Children usually complete primary school but get involved in fishing and related activities from an early age, contributing to a higher than average drop out rate at the secondary level. Although women fish in lagoon and bays, and play an important role in sorting and cleaning the catch, marketing, processing and net repair, their contribution is seldom recognized.

Most artisanal fisher families are ethnic Vietnamese and live in villages scattered along the coastline, away from cities and towns (see Box 4). Given their distance from markets, they depend on traders to buy their fish. Access to alternative income opportunities is very limited. Although a minority have small plots of farmland on which they grow cassava, sweet potato or peanuts, soils are poor and yields low. Some families supplement their incomes through petty trading in local markets or the preparation of processed products such as fish sauce. Fattening pigs for sale was popular but is less profitable following changes in market preferences and falling market prices. Many families depend on the long-term migration of one of their children to urban areas to cope with the instability of their livelihood and to provide capital for investments in improved fishing gear.

Fisherfolk with occasional employment or with non-motorised or low-capacity engine vessels are subsistence producers with limited and poorly diversified fishing gear. Most own small canoes or low-powered vessels. However, rough seas and storms throughout the year, especially during the winter monsoon from November to January, regularly prevent them from fishing. When they are unable to go to sea, some fish on rivers, however, many look for daily wage labour or migrate temporarily in search of work. Substitute crewmembers, without their own boats, also belong to this sub-group. When they lack offshore work, they sometimes do maintenance and repair work, fish in inland waters or from the shore, or look for crabs and shrimp along the beach and in tidal pools. The diet of the most food insecure households is based on rice, fish and seafood, fish sauce and small amounts of vegetables. They consume the lower quality catch and sell the best fish. Meat is rarely consumed. During the off-season, their diet often does not meet minimum energy and protein requirements. Food quantities are reduced and families switch to dry fish and rice of lower quality, supplemented with cassava and sweet potatoes.

¹⁰ The Central Coastal Region comprises provinces of the North Central Coast and South Central Coast from Thanh Hoa Province in the north to Khanh Hoa Province in the south.

Figure 4: Vulnerability continuum for artisanal fisherfolk in the Central Coastal Regions

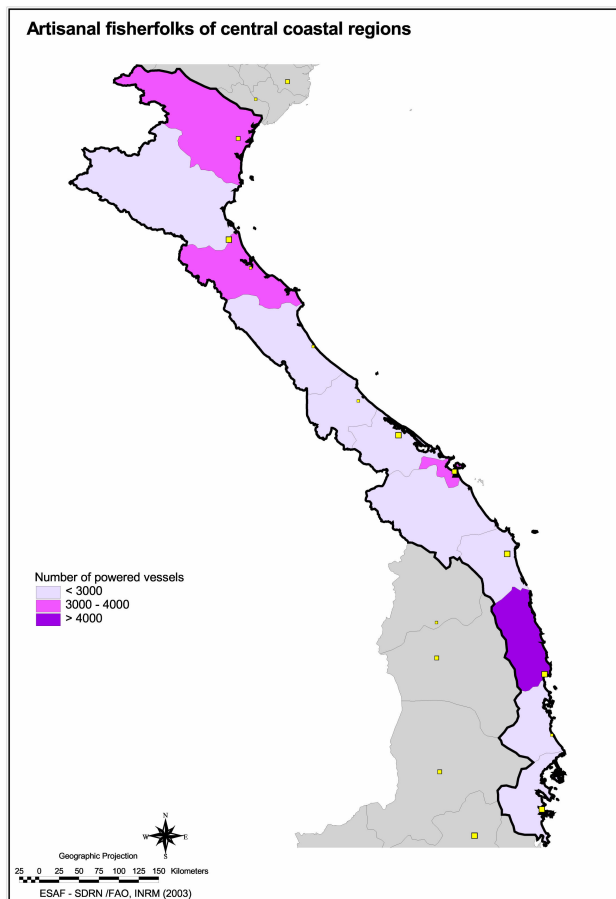


Fisherfolk who work on vessels with small engines are small-scale operators with more diversified fishing gear, which can be adjusted in response to seasonal conditions. Because of their more powerful boats, they are able to fish for more months of the year, have shorter periods of reduced income and are normally able to meet their food expenses. Most households own boats jointly with one or two other families. Others rent vessels from fisherfolk who have been able to move to larger vessels or find work as crew members. Risk of work-related accidents is high because most boats are not equipped with emergency radio equipment. Although fisherfolk depending on brackish lagoons along the coast have a relatively more stable income than marine fisherfolk due to their ability to fish during most of the year, they are also sometimes food insecure. This group includes a relatively small number of Sampan families who live on boats in relative isolation and have limited access to basic services like education, health and sanitation.

By comparison, ***fisherfolk who own shares in, or work as crew members on, more powerful vessels*** enjoy better access to off-shore fishing grounds, which provide a potentially higher-value and better quality catch. During prolonged periods of bad weather (including the monsoons), they can travel to relatively distant areas to continue fishing. Their boats have various kinds of fishing gear, which allows them to target different species and maximise revenues, particularly important with increased competition and over-exploitation. Sometimes larger boats pull smaller vessels to distant fishing grounds and receive a share of the catch as payment. Joint ownership of boats is common within this sub-group. In other cases, fisherfolk are recruited to work on large vessels owned by entrepreneurs, usually on the basis of kinship with the owner or captain. Families in this sub-group have a more diversified and stable diet, and consume larger quantities of fish, meat, eggs, bread and noodles. The risk of food insecurity is temporary and related to loss of working days because of bad weather or seasonal and yearly changes in the availability of fish. However, these families still face difficulties to make ends meet given rising expenses (particularly fuel costs), fluctuations in the price of seafood, as well as the high possibility of individual shocks (such as work-related accidents).

The intra-household allocation of food is unequal among households in each of the sub-groups of this vulnerable group. Priority is given to children and seafaring men, followed by the elderly and women. The surveys carried out in fisher communities as part of this study indicate that malnutrition among children under five years is high and consistent with regional averages. In the North Central Coast and South Central Coast, stunting stands at 44.1 percent and 36.9 percent respectively (WHO, 2003). Anaemia in pregnant women in the Central Coastal Region reaches 50 to 55 percent (NIN/UNICEF, 1995). Common illnesses faced by people within these households include respiratory infections, rheumatism, diarrhoea, parasites and skin and eye diseases. Dengue fever is endemic and gynaecological infections are common among women.

Map 5: Distribution of fishing boats with engines in the Central Coastal Regions

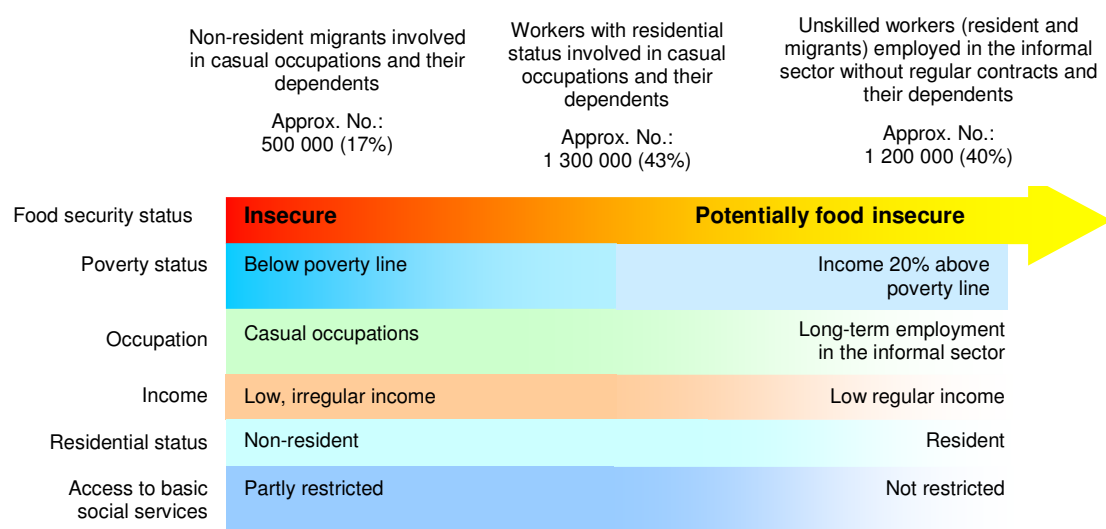


2.5 Poor Urban Workers with Unstable Occupations

According to the 1999 census, the official urban population of Viet Nam is 18 million. However, the exclusion of small, nearly urban, centres that are classified as rural¹¹ and the presence of a large number of unregistered migrants mean that the actual urban population could be as much as 20 million or more. The population of HCMC accounts for 23.3 percent of the total official urban population and that of Hanoi for 8.3 percent. Forty percent of the remaining official urban population live in middle-size cities, of which six cities like Hai Phong, Da Nang and Bien Hoa have more than half a million inhabitants.

An estimated three million people in households of urban workers with unstable occupations, equivalent to 15 percent of the total urban population, are food insecure or potentially food insecure (see Map 6). These households were classified into three sub-groups based on degree of poverty, type of occupation and employment, type of residential status and access to social services or to social security (see Figure 5). The sub-groups comprise migrant workers engaged in casual occupations with and without residential status, and unskilled workers (resident and migrant) employed in the informal sector without a regular contract¹². The number of people in each sub-group was derived using police data on migrants, MOLISA data on unemployment and under-employment and VLSS poverty rates.

Figure 5: Vulnerability continuum for poor urban workers with unstable occupations



Non-resident migrant workers derive their livelihood from casual occupations (including short-term contractual labour and self-employment) and are food insecure. Most of these people are de-facto permanent urban residents who have been unable to get permanent urban residency (see Box 5) and live close to or below the poverty line. Given their lack of residential status, they cannot access basic social and sanitary services or national welfare programmes. Many live in cramped and unsanitary conditions. A few thousand households,

¹¹ Urban centres are defined as settlements with more than 4 000 residents and at least 65 percent of the labour force engaged in non-agricultural activities.

¹² Only long-term migrant workers (as compared to short-term seasonal migrants from rural areas) are included in this vulnerable group.

usually single parent and female-headed, are homeless and live under temporary shelters, mostly in HCMC.

Box 5: Migrants and residential status

To limit spontaneous migration to the cities, the Government of Viet Nam has set restrictions on granting residential status, which disqualify poor workers with unstable occupations. Migrants are classified in three categories:

- KT2 – have moved from one district to another within the same province.
- KT3 – have moved from one province to another and have temporary residence permits.
- KT4 – have moved from one province to another but have only a short-term permit or no permit at all. This category includes seasonal workers and students, as well as long-term migrant workers who are not entitled to receive a residential permit.

To apply for KT3 status, individuals must have lived in the area for at least 6 months (though often several years are required), have a stable job, a stable housing situation and possibly a recommendation from a resident. To qualify for permanent residency, applicants must meet various additional requirements. They must have lived in the area for at least five years earlier, have higher education or qualifications, have a regular employment and own a house.

Source: Bond et al. 1999

Non-resident workers earn on average US\$1-2 per day. A full-time day labourer who also works during the weekends can earn about US\$33-40 per month. However, income is very unstable. Men typically work as masons or carpenters for sub-contractors, porters in city markets, cyclo drivers, junk traders or scavengers in rubbish dumps. Most women work in small shops or restaurants, or do contractual work (small handicrafts, washing clothes) at home. Sometimes elderly people or children from these households beg to get extra money. The rate of under-employment among these migrant workers, particularly those working in construction, is high because most cannot find alternative jobs during the rainy season. Competition for the best paying jobs is high and work is physically demanding. Labourers who are ill or weak have the greatest difficulties finding work. People in some occupations have been affected by regulations barring certain types of vendors (road-side tea and soup sellers, cyclos, etc.) from certain areas of the city, which increases their exposure to fines or extortion.

Box 6: Living with uncertainty

Urban households with unstable occupations live in a constant state of anxiety and uncertainty. During the day, they often have to juggle several jobs to make ends meet. An example is the mother getting up early to make sticky rice cakes for sale to urban consumers for breakfast. Later in the morning, she might work for a few hours as a servant in the home of a better-off family, or do laundry at home for clients. During the dry season, her husband will try to find work in construction, but when that is not available, he will have to look for jobs as a porter or scavenge whatever might be collected and sold from dumps.

Only families with the entrepreneurial skills and flexibility to reach full (or near full) employment through several part-time or seasonal occupations manage to break even. Planning for the future is impossible.

Street children also belong to this sub-group. Some come from poor urban families and go back home in the evening. Others are from rural areas and live in the city alone. Most street children live off petty business like selling lottery tickets, post cards and polishing shoes. Many are at risk of sexual exploitation.

Several urban occupations are part-time or seasonal, and ensuring a regular income is difficult. Thus, the food security situation of families in this sub-group depends on the availability and well-being of household labour and demand for wage labour (see Box 6).

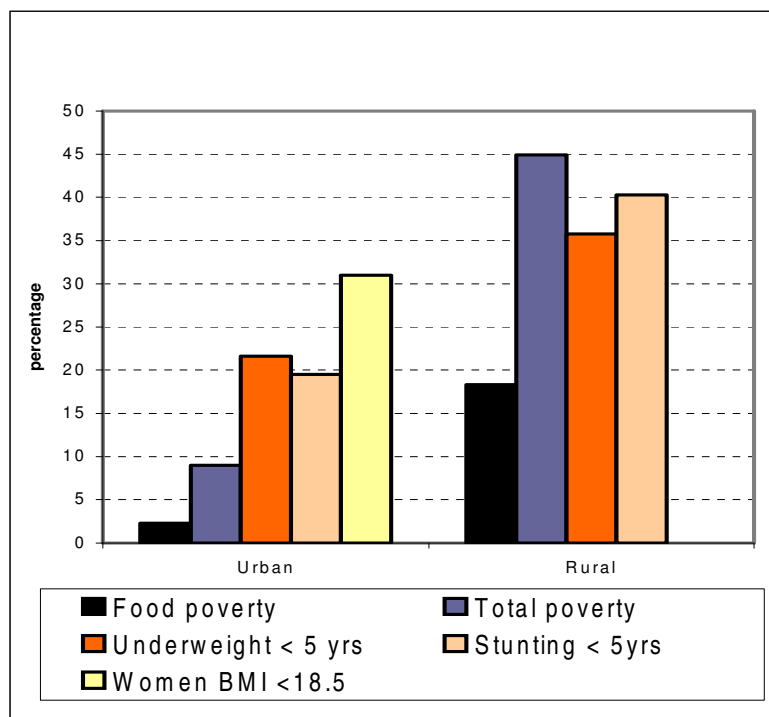
Poor urban workers with resident status who depend on casual occupations are slightly better off than non-resident workers given their access to social services. Although their occupations are similar to non-resident workers, they sometimes own small houses in poorer residential areas, their children can attend school, and they are entitled to request a connection to public utilities. Households officially classified as poor can qualify for some reductions or exemptions in health fees and school taxes under national welfare programmes such as the Hunger Eradication and Poverty Reduction (HEPR) programme¹³. Those living in better neighbourhoods sometimes receive help to bridge food gaps in the form of small loans and food from wealthier neighbours.

Both resident and non-resident casual workers are highly vulnerable. They have a poor diet based on rice, vegetables and fish sauce. Small amounts of fish, tofu and/or meat are eaten occasionally during the week. Households generally eat breakfast and two main meals a day. The diet and food intake varies significantly with employment availability and shifts in income. When incomes are higher, household diet improves but during times of under-employment or unemployment, people regularly lack enough to eat.

Unskilled workers (resident and migrant) employed without contracts in the informal sector (such as small manufacturing units, shops, restaurants and private homes) are usually slightly better off than workers in casual occupations. Their wages are low but they normally have long-term employment, which earns them about US\$20-40 per month. However, migrants, who account for about a third of this sub-group, often get less. Sometimes those employed in homes and restaurants also receive food from their employer. Most households in this sub-group live close to, or just above, the poverty line.

¹³ Initially launched in the early 1990s in HCMC, the HEPR framework was adopted as national policy in 1996 and the first national HEPR programme (1998-2000) was initiated two years later, bringing together a number of component programmes focused on credit, training, extension, education, health, etc.

Figure 6: Poverty and malnutrition in urban and rural areas



Source: GSO (2000) (malnutrition rates) and WB 2000 (poverty rates)

Unskilled workers without contracts lack job security and access to the benefits (such as social security, annual/sick leave, pension rights, etc.) required by law for contracts over three months. They are at risk of exploitation such as working overtime without proper compensation or delayed payments. Working hours are usually at the discretion of the employer and may be scaled back suddenly and salaries reduced during periods of reduced demand. Several households in this sub-group include one worker on a long-term contract and another who does casual jobs. Although unskilled workers are not usually food insecure, they are potentially so due to shocks such as periods of under-employment. These unskilled workers have a more diversified diet, which includes vegetables, fish, meat, tofu, eggs, noodles, bread, cooking oil, fruit (particularly in southern cities) and condensed milk (for children), and eat breakfast from street stalls more often. However, despite this relative diversification, about 75 to 80 percent of their calories are derived from staple foods. As a result, their diet is not well balanced.

Box 7: Poverty, food insecurity and malnutrition in urban areas

Food is cheaper in rural areas while life in cities is more expensive, therefore workers need to generate higher incomes to have similar consumption levels and a similar diet to people living in rural areas. The rapid appraisal carried out during the vulnerable group profiling exercise indicated that households are able to consume a diet of 2 100 calories/day - similar in quality to the standard food basket - when their income level is close to the general poverty line. Households that have a diet of lower quality were considered food insecure. Hence, the share of people in urban areas who are poor and food insecure is approximately equal to the poverty rate of nine percent.

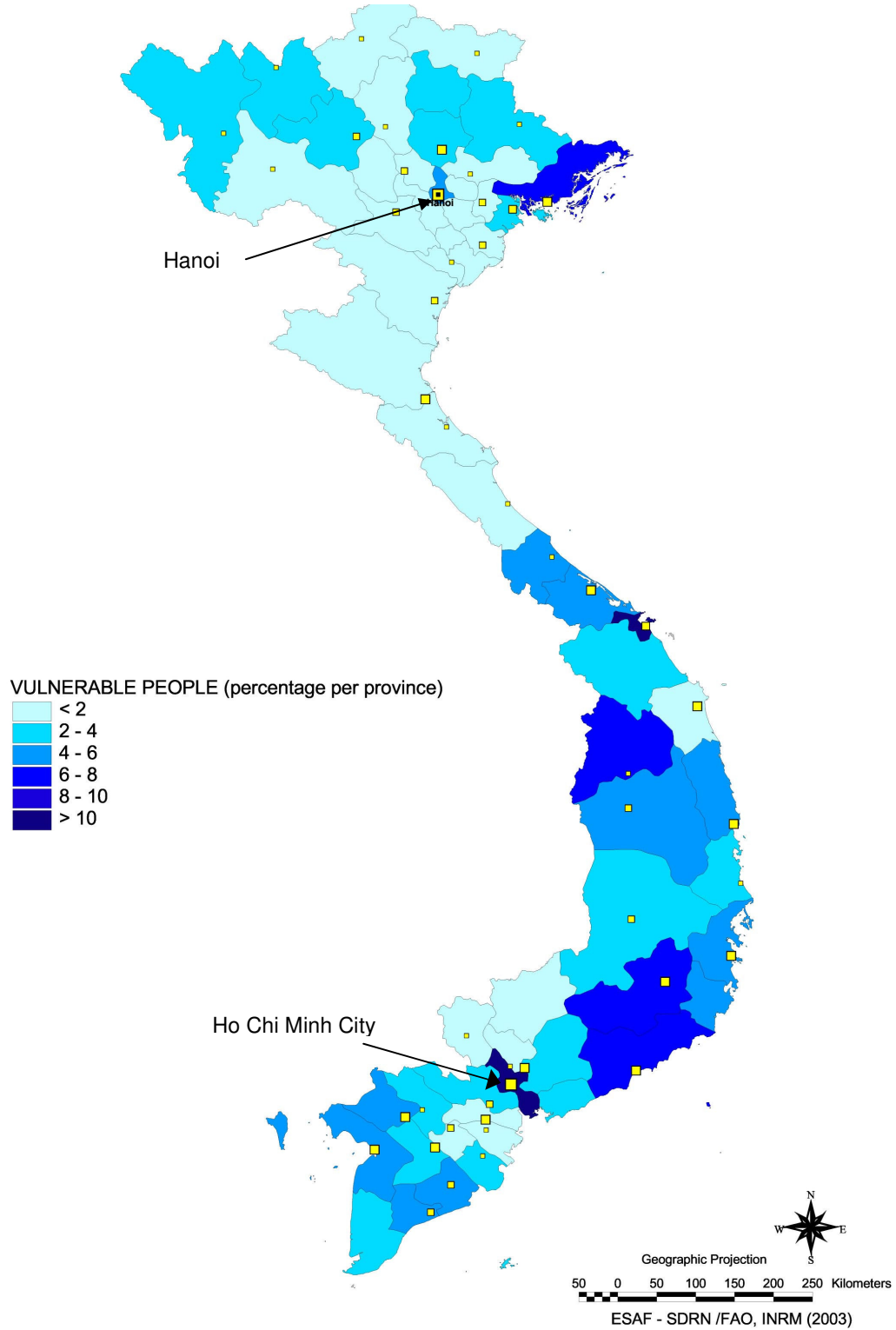
An additional six percent of the urban population is considered vulnerable since they have incomes that do not exceed the level of food security by more than 20 percent and therefore have a high exposure to shocks that could affect their ability to purchase food.

The relatively large degree of vulnerability vis-à-vis poverty in urban areas is confirmed by comparing poverty with malnutrition indicators as illustrated in Figure 6. The rate of child malnutrition in urban areas is twice the rate of poverty and nine times that of food poverty. Malnutrition is more than three times the poverty rate among women living in HCMC and Hanoi (data are unavailable for other urban areas). In contrast, the rate of child malnutrition in rural areas is less than total poverty and only about twice food poverty however, one explanation could also be that malnutrition indicators respond slowly to improvements in socio-economic conditions and the rapid increase in urban living standards is not yet fully reflected in the indicators.

Rural workers migrate to fast developing cities because they can earn cash, but urban life for people with unstable occupations could be more food insecure than in rural areas, where food is produced. In addition, the habit of saving money at the expenses of food to invest, for instance, in children's education, small enterprises or remittances to the original family is more common among urban migrants. The appraisal, which tried to estimate the real cost of achieving food security for the vulnerable groups, highlights that the use of an average poverty line for the entire country is likely to underestimate the size of food insecurity in urban areas.

Source data: Rapid appraisal

Map 6: Distribution of poor urban workers with unstable occupations



3. Why are people vulnerable to food insecurity?

Considerable progress has been made in reducing poverty and improving food security in Viet Nam, as the decline in the rate of poverty and food poverty in both urban and rural areas has highlighted. Yet, despite these impressive gains, a significant number of people engaged in particular livelihoods are still vulnerable to food insecurity. In order to support the Government and its partners to consolidate and expand the progress already made in reducing hunger, one of the objectives of this study was to investigate why (against this background of accomplishments) these people remain vulnerable. In this context, this section discusses the various factors –at the household, meso and macro level – which cause some livelihoods to be particularly vulnerable. While some of these factors are specific to particular occupations, several are common for each of the four vulnerable groups profiled.

A household's vulnerability to food insecurity is a function of the type, frequency and intensity of the risks to which it is exposed and its ability to cope, which is highly dependent on its asset base. Risks have different characteristics and occur at different levels (see Box 8). Some risks like ill health or work-related accidents that affect key income-earners or the death of livestock normally affect individual households. Other types of risks can affect whole communities, provinces or groups of provinces. Meso-level risks like landslides or pollution can be of concern to large groups of households, while macro-level shocks (such as a fall in the price of key agricultural commodities or weather-related disasters) can be catastrophic for people with agricultural-based livelihoods at a national level.

As illustrated in the profiles of vulnerable groups (Section 2), households that are most vulnerable to food insecurity typically: i) have limited assets; ii) can barely cover essential food and non-food expenditures; iii) are at risk of events that reduce income or require additional expenditures; and iv) have a low risk management capacity. Due to their limited asset portfolio, these households have limited options and flexibility in their livelihood strategies, which constrains their ability to make positive livelihood choices and reduces their ability to withstand or adapt to shocks and stresses. The remainder of this section analyses how exposure to risks and risk management capacities affect the four vulnerable groups profiled.

Box 8: Types of risk

An **idiosyncratic risk** (such as a house fire, work injury, girls being withdrawn from school) only affects individuals and households. The probability of one household being affected is largely independent of whether other individuals or households are affected.

A **covariant risk** is a risk (such as a flood or drought) which affects many people at the same time.

Source: Heitzmann, Sudharshan Canagarajah, & Siegel, 2002.

3.1 Limited quantity and quality of livelihood assets

Each of the vulnerable groups profiled have a limited quantity and quality of livelihood assets, which severely reduces their range of options and obstructs their ability to switch between different strategies to secure their livelihoods.

Low human capital

Limited knowledge and skills, poor education and ill health are core contributing causes to vulnerability. Households with lower levels of human capital (knowledge and labour or the ability to command labour) cannot easily make the best use of other assets available to them. Many vulnerable households are larger than average with a higher than average dependency ratio of children and elderly persons to working adults. Although adult literacy is generally high, the level of education is low with most adults having completed only a few years of schooling. In the Northern Region, 80 percent of *H'Mong* women and 50 percent of *H'Mong* men never attended school, while half of *Dao* women and almost one third of *Dao* men have had no schooling. Although the upland farm and artisanal fisher households included in this analysis have local knowledge about the fish or forestry resources available to them, many lack other types of knowledge (including about marketing, processing or quality standards) that would enable them to make the most profitable and sustainable use of these resources in the changing context of increasing resource degradation. A weak skills base also hinders the adoption of improved technologies and management practices among these livelihood groups.

Although education of children is regarded as important, drop-out rates tend to be higher than average. Among ethnic minorities in the Northern Region, children often begin school late, while primary enrolment and completion rates are low, especially among girls. Secondary school drop-out rates tend to be above the rural average for children in artisanal fisher families who start working early in life. In urban areas, children of unregistered migrants with unstable incomes are often excluded from formal schooling due to their lack of birth certificates or the need for them to earn income through work or begging.

Lack of access to various kinds of information is another key constraint facing vulnerable households. Thus, stemming from inadequate knowledge about existing policies, legislation and regulations, many non-resident migrant workers believe it is impossible to register their children or for them to attend school (see Box 9).

Box 9: "We have no dreams and no dreams for our children", non-resident female worker in HCMC

Non-resident workers in cities face continual hardship and marginalisation. For most, it is almost impossible to improve their situation, regardless of how hard or how much they work. Although some families have been living in urban areas for up to 20 years, they have been unable to upgrade their temporary residential status (KT4) because of their lack of a stable job, education or housing. And because of their lack of residential permits, they are barred from jobs in the public sector and only eligible for private sector jobs that residents do not want. Lack of residential status also excludes people from basic infrastructure and social services. Because children of non-residents normally retain the residential status of their parents, deprivation and marginalisation is passed down from one generation to the next.

Many non-resident migrants in urban areas are not informed about their rights. Sometimes local authorities (trying to keep birth rate statistics in their area low) refuse to register the children of non-resident migrants. Parents who have no right to stay in the ward and often lack marriage certificates believe it is not possible to register their children. Some are also afraid to draw the attention of local authorities to themselves in case they are expelled from the city.

Social capital is relatively strong but the availability of such support limited by a lack of resources

The importance of social capital in Viet Nam is relatively strong. Communities often provide assistance to community members who fall into difficulties with inter-household loans of labour or draft animals, child care, money transfers or contributions to weddings and funerals (Conway & Turk 2002). In the deltas and Northern Region, the traditional social fabric, based on kinship and neighbourhood ties, still plays an important role in providing mutual support and assistance, which is particularly important during times of crisis. In the Northern Region, isolated ethnic minority villages maintain customary practices for the joint management of natural resources and mutual self-help. Indeed, given their limited access to social services and external welfare assistance, community relationships play a crucial role in supporting vulnerable households in the most isolated areas.

However, the availability of community help is limited by a simple lack of means and, increasingly in urban areas like HCMC, the transition to a market economy and urbanisation, which tends to erode strong social ties. Although not all migrants are vulnerable and many move to neighbourhoods with people from their home locality, spontaneous unregistered migrants are normally marginalised from mainstream urban society. In addition, most lack access to government welfare programmes and assistance provided by NGOs. Social exclusion and marginalisation keeps their bargaining power low and makes them susceptible to exploitation (such as delayed or reduced payment, longer working hours) by employers.

Among artisanal fisherfolk, while many aspects of the traditional forms of social organization (for traditional ceremonies, mutual support at work, sharing the catch, etc.) have been maintained, in other ways, the availability of social capital seems to be in decline. The number of cooperatives has fallen with the introduction of economic reforms. Increasing market reliance also means that isolated fisher families lacking reliable market information and often receiving lower than market prices from traders for their catch.

The quantity and quality of available natural capital is in decline

Access to, and rights over, natural capital is critical for households that derive all or part of their livelihoods from resource-based activities such as farming, fishing or gathering forest products. However, small farmers in the Deltas and Northern Region, and artisanal fisherfolk along the Central Coast have seen the quantity and quality of their natural capital diminish in recent years. Increasing population, over-exploitation and natural resource degradation are part of this process. In addition, deficiencies in policies and institutional processes (such as forest land allocation, management of offshore fishery resources) sometimes fail to safeguard natural capital resources.

Intense deforestation in the Northern Region has reduced the availability of non-timber forest products, a key source of food and income for some of the most vulnerable households (see Box 10). Increased pressure on common land has reduced land quality and pushed households into ever more remote and inaccessible areas. Along the central coast, there is open access to offshore fishery resources.

Box 10: Declining forest resources

Since the foundation of the Socialist Republic of Viet Nam in 1945, much of the country's forest cover has disappeared. From 1943 to 1997, five million hectares of Vietnamese forests were lost. Forests covered 43 percent of the country's total land area in 1945. By 1997, forest cover had fallen to just 28 percent

Source: www.fao.org.vn/ForestryE.htm

However, access to these resources has declined significantly, due to over-exploitation, destructive fishing practices and increased pollution near urban areas, damaging biodiversity and endangering several species. Although most fishing resources in lagoons are managed through tendered private user rights, households that are most vulnerable to food insecurity are generally excluded from these bidding processes due to their lack of collateral and influence.

Limited access to, and poor quality of, available physical capital

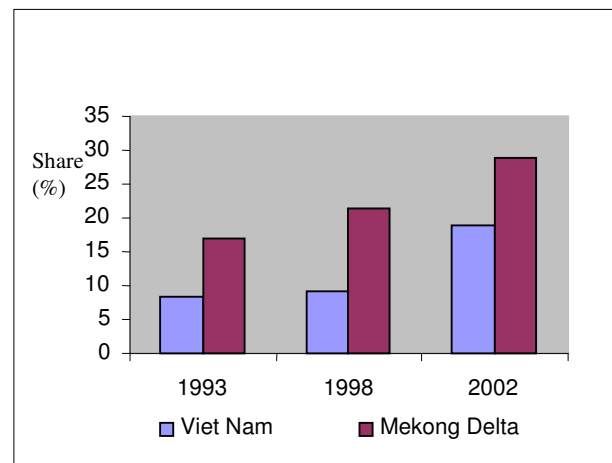
Weak access to, and the poor quality of, privately-owned and publicly-held physical capital is an essential contributing factor to food insecurity. Without adequate access to water and energy services, human health deteriorates. Long periods are spent in non-productive activities such as the collection of water and fuel wood, putting an extra burden on households, particularly women who tend to be responsible for these activities. Access to water for agricultural and domestic use is particularly acute in some parts of the Northern Region that have karst scenery and uneven rainfall. However, even in the Red River and Mekong Deltas, households that are vulnerable to food insecurity mostly rely on rain, shallow wells, rivers and canals for their drinking water.

Vulnerable farm and fisher households tend to have inadequate privately-owned physical capital (including agricultural land, livestock, kitchen gardens, tree plantations, boats and fishing gear) to support their main occupation. Land holdings of the most food insecure farm households in the two deltas and Northern Region are generally small in size, less productive (for instance acidic or sandy soils, limited irrigation, soils affected by salts or floods, etc.), and at risk of natural disasters like floods and landslides. Recent data also suggests that landholding of the poor is falling. The lack of irrigated land and cultivable land, particularly for ethnic minority households living at higher altitudes, severely limits production and contributes to long periods of food deficits. In addition, many upland households have not yet seen their traditional user rights to swidden fields translated into formal titles. The relatively slow pace of forest land allocation and the reforestation of so-called “barren” land¹⁴, which is still used by ethnic minorities for slash and burn agriculture, has complicated access to available assets and given rise to increased conflict over available resources. In the Mekong Delta, a growing number of farmers have become landless following periods of hardship such

¹⁴ In the Vietnamese context, “barren” land refers to approximately 10 million hectares of sloping land that has been denuded of forest cover and degraded by a combination of shifting cultivation, burning and other practices (Morrison and Dubois 1998).

as crop failure or health problems (see Figure 7). It is a new phenomenon with serious consequences on food security. Other farmers in the flooded areas of the Mekong Delta suffer high post-harvest losses of up to 15 percent given their lack of drying machines for the summer paddy.

Figure 7: Landlessness in Rural Areas(share of population)



Limited access to diversified fishing gear and adequate boats (with engines and safety equipment to enable fishing further off-shore and during rough weather) contributes, through lowering income, to the food insecurity and vulnerability of artisanal fisherfolk in the central coastal provinces. Although there are possibilities to farm through aquaculture higher value species in inland lagoons, the majority of subsistence and small-scale fisherfolk have so far been unable to participate in these opportunities given their lack of access to suitable land and water resources, as well as the inability to finance the required investment and ability to take the associated risks.

Households that are most vulnerable to becoming food insecure have few if any other physical assets (such as home gardens or livestock) with which to supplement their income or food supply in case of an adverse shock. An unexpected shock, such as a serious illness of the household head, could push them into poverty in a matter of months. As illustrated in Table 4, households in the Mekong Delta, a region with a high exposure to natural disasters, have a particularly limited endowment of assets with which to cushion shocks.

In addition to minimal privately-owned physical capital, access to publicly-owned physical capital is also limited. Given the scarcity of official landing sites and market places, artisanal fisherfolk sell most of their catch at small landing sites near fishing villages where traders are few and information on prices generally unavailable, resulting in prices below market value. Insufficient use and availability of ice contributes to high post-harvest losses. Access to water and electricity services is another critical problem for many vulnerable households. In particular, unregistered migrants in urban areas are forced to buy electricity and water from private suppliers at up to three times the cost given their non-residential status. In the Northern Region, rough terrain impedes the development of all kinds of infrastructure, and many households live in isolated areas without roads, far from health centres, schools and markets. Rural electricity use is still low due to uneven access (an estimated 80 percent of communes in remote areas have no electricity) and high charges.

Table 4: Expenditures, assets and vulnerability

Region	Percentage of population who:		
	Have expenditure below the poverty line	Are less than 10 percent above the poverty line	Have no assets to cope with shocks
North East	38.4	6.6	10
North West	68	4.3	4.1
Red River Delta	22.4	7.8	6.2
North Central Coast	43.9	8	8
South Central Coast	25.2	6.8	9.8
Central Highlands	51.8	6.2	8.3
South East	10.6	3.3	9.5
Mekong Delta	23.4	7.5	17.8
Viet Nam	28.9	6.7	10.2

Source: World Bank (2003)

Inadequate sanitation services contribute to high rates of diseases, including diarrhoea among children and internal parasites. The situation is particularly bad in the Mekong Delta where proper sanitation is very rare, and human waste is often discharged directly into fishponds or the river-canal network.

Although basic social services such as health clinics and schools are available in most rural communes in the deltas, uplands and coastal provinces, the quality of these services is reduced due to limited availability of qualified staff and necessary equipment. In the Northern Region, the most vulnerable households live far from commune and district centres. However, remoteness aside, many ethnic minority children are excluded from schooling by the fact that lessons are taught in Vietnamese which they do not necessarily understand.

Weak access to financial capital

Vulnerable households have very limited if any financial capital (cash, savings, jewellery and access to credit) with which to finance investments in their main source of livelihoods and/or cover unexpected expenditures including those caused by shocks. In the Central Coastal Regions, demand for credit to invest in equipment is high among artisanal fisherfolk but given their lack of land for collateral, they are normally

Box 11: Debt and vulnerability in the Mekong Delta

An adult in a marginal farm family in the Mekong Delta falls seriously ill and needs emergency health care. The family has no savings and must borrow money from a neighbour to pay the fees. They repay the loan in labour at the time of rice transplanting. As a result, the family is late in preparing and planting its own field, putting their harvest at risk of flood damage. There is no extra money for fertilizer. The resulting yields are low and most must be sold immediately (when the market is saturated and prices low) to repay the cost of inputs and cover other basic needs. Later the family must buy rice on the market at a higher price. Soon after, another unexpected shock forces the family to look for a bigger loan from a moneylender. But the interest rate is high and the loan difficult to repay. Gradually the family sinks deeper and deeper into debt until they have no choice but to sell their land, losing their main source of living.

obliged to rely on their extended family, friends or fish traders. Even though the interest rates offered by traders are low (a few percentage points per month), the arrangement requires fisherfolk to hand over discounted purchasing rights over part or all of their catch until the debt is repaid, which in turn reduces their income. In urban areas, non-resident migrants interviewed during the fieldwork indicated that they lack access to credit programmes targeted at the poor, including those offered by the Women's Union and under the HEPR initiative. Even though poor resident families should in theory be eligible, the majority appear to lack sufficient information about such programmes to access them. Those who interviewed who knew about these credit programmes often reported that the terms were ill-suited to their needs.

The weak financial base contributes to the need for even food deficit farming households to sell at low prices and purchase at high prices. The household budget implications of this can be significant given the variance in, for example, rice assembly prices (Lovendal & Nguyen, 2003). Moreover, this lack of access to financial capital, particularly credit, to cope with household emergencies forces many vulnerable households to accept high interest loans from money lenders and causes many to gradually get caught up in a debt spiral through which they eventually lose their home or land (see Box 11). While small farmers in the Red River and Mekong Deltas have fewer problems to obtain seasonal loans for annual crops (compared to landless and more marginal farmers), they experience difficulties in getting medium-term loans for investment in livestock and aquaculture ponds or for plants that take longer than one year to produce a harvest.

Although the number of credit programmes targeted at poor households has increased, a large share of the vulnerable rural and urban households, particularly households headed by women and in isolated communities, continue to have little choice but to rely on informal financial providers that demand considerably higher interest rates than official sources. Lack of conventional collateral, high competition for loans, complicated procedures, unsuitable types and timing of loans, and a bias against applicants perceived as high risk are the main obstacles that hamper access.

3.2 Adverse trends gradually erode the risk management capacities of vulnerable livelihoods

Increased pressure on natural resources

Population growth, increased use of common property resources and unsustainable production practices are leading to increased pressure on available land, forest and fishery resources throughout Viet Nam, which has a huge influence on the livelihoods of vulnerable households. Continued population growth, particularly among ethnic minority groups in upland areas and artisanal fisherfolk in the central provinces, has created a high dependency ratio among some of the most vulnerable households in the country, and increased pressure on available resources given the lack of alternative sources of income in these areas.

In the Central Coastal Region, the catch of subsistence and small-scale fisherfolk has in volume and value during recent years. Many commercial species, especially those in shallow waters near the shore, are over-exploited. Artisanal fisherfolk unable to travel further off-shore have been most affected. Degradation of coastal and lagoon habitats has been exacerbated by the use of illegal fishing practices, the increased entry of new operators (facilitated by the present open access regime and the relatively low investment required for small-scale fishing) and the weak capacity of provincial authorities to patrol fishing grounds.

Offshore vessels regularly encroach on the near shore fishing areas traditionally used by small-scale subsistence fisherfolk, while subsistence fisherfolk are increasingly in conflict with those using fixed gears or engaged in aquaculture in inland lagoons. As a result, local fisherfolk have to travel further to reach remaining open grounds and concentrate in smaller areas, which are over-exploited and sometimes affected by pollution from shrimp farms. Offshore vessels regularly encroach on the near shore fishing areas traditionally used by small-scale subsistence fisherfolk. In inland lagoons, subsistence fisherfolk are increasingly in conflict with those using fixed gears or engaged in aquaculture. As a result, local fisherfolk concentrate in smaller areas, which are over-exploited, either because they have to travel further to reach remaining open grounds or because their traditional inland grounds are encroached, and often polluted, by aquaculture farms.

Widespread deforestation during the past 40 years has undermined the essential role of forests in the livelihoods of marginal and resource-poor households in mountainous parts of Viet Nam. The collection of forest products has been significantly affected. Many upland communities face scarcity even for firewood, the most basic forest product, while edible roots, mushrooms, bamboo shoots, tree fodder and medicinal plants are increasingly scarce. Deforestation has also increased the risks of erosion, flooding and landslides, and led to siltation of canals and reservoirs, which has negatively affected the maintenance and upgrading of existing irrigation schemes. Natural resource degradation in the uplands has been intensified by the move from shifting cultivation to fixed agriculture, promoted since 1968 under the Fixed Cultivation and Sedentarization Programme¹⁵. The lack of a corresponding change in cultivation techniques has resulted in high erosion and reduced yields, and the replacement of upland rice with maize and other less demanding crops.

Environmental damage is also evident in lowland delta areas. Agricultural intensification (based on the use of agro-chemicals), unsustainable aquaculture development, increasing urbanisation and industrial development is eroding the delicate ecological balance of agricultural land on which small-scale farmers in both the Red River and Mekong Deltas depend for their living.

Structural changes in the job market

Structural changes in the job market have depressed the demand for unskilled labourers and increased the number of people depending on casual occupations to earn a living. Many resident workers in HCMC and Hanoi who lost their jobs during the restructuring of state owned enterprises often do not have the skills demanded in the current labour market. The most marginal urban households and rural migrants have lacked the skills and information to take advantage of new, more skill-demanding jobs in the industrial parks and export processing zones of Southern Viet Nam.

At the same time, an increasing number of rural people with few other alternatives are migrating to urban areas, particularly HCMC and Hanoi, and smaller cities like Hai Phong and Da Nang, in search of work, thus raising competition in the job market for unskilled labour. The approximately five million unskilled workers in Viet Nam now account for two thirds of the entire workforce in urban areas. According to official figures, some 240 000 people migrate to cities every year. However, some estimates indicate that the actual rate may be twice this.

¹⁵ Initiated in 1968, this programme sought to increase forest coverage by 25 to 40 percent by 2000. A key objective was to stop the destruction of the remaining forest resources by relocating and stabilising three million people, especially groups like the *H'mong* and *Dao* (Novellino, 2000).

Fluctuations in the market price for rice, seafood and other commodities

A sharp drop in the international price of commodities (rice, coffee, coconut, sugar cane, etc.) has had a negative impact on millions of small and marginal farmers in Viet Nam. Among the four vulnerable groups profiled, small farmers in the two deltas have been particularly hard hit by the downturn in rice prices. Down by 23 percent from 1996 to 2000, the drop in the average export price of rice has been especially hard on small farmers in the Mekong Delta who depend on the export market and generally have lower farm-gate prices and profits than farmers in the Red River Delta. The most marginal farm households have suffered worst. These households often sell their produce for a low price when the market is saturated after the harvest and re-buy at higher prices for home consumption later in the year. The profitability of fishing has been negatively impacted by fluctuations in the price of seafood, while changing market preferences for leaner meat has hurt small-scale fisherfolk and farmers who have been unable to adjust their small livestock (pig) breeding methods.

Table 5: Trends, shocks and seasonal patterns that affect the production, exchange and consumption activities of vulnerable people

Factor of change	Small farmers in the Red River & Mekong Delta	Small farmers in the Northern Region	Artisanal fisherfolk of the Central Coastal Region	Poor urban workers with unstable occupations
<i>Trends</i>				
Structural changes in job market; increased competition and reduced demand for unskilled labour	x			x
Over-exploitation and rise in natural resource degradation		x	x	
Increasing conflict over natural resources (swidden fields, forest land, lagoons, offshore waters)		x	x	
Increased forest protection reduces availability of forest products		x		
Increased scarcity of grazing land for traditional system of rearing livestock		x		
Increasing landlessness among indebted farmers	x			
Increasing migration and difficulties to obtain registration status				x
<i>Shocks</i>				
Natural disasters (landslides, cyclones, etc.)	x	x	x	x (in slums)
Work-related accidents			x	x
Life-cycle events (death or illness of household head or wage earner, livestock, etc.)	x	x	x	x
<i>Seasonal events</i>				
Fluctuations in price of rice, seafood and other commodities	x		x	
Lack of income/food during off season	x	x	x	x

3.3 Sudden shocks drive vulnerable households into food insecurity

Recurring natural shocks

Urban and rural households in Viet Nam are forced to cope with various natural calamities, which can sometimes be catastrophic. Frequent and recurring floods, typhoons and cyclones threaten the livelihoods of small-scale and subsistence fisher families in Central Viet Nam (see Box 12). In the eight provinces from Quang Tri to Khan Hoa, 900 people were killed and 270 000 houses evacuated during floods at the end of 1999. Storms regularly damage houses, boats and fishing equipment, and prevent fisherfolk with non-motorised canoes and low capacity engines from going to sea. The ensuing interruption in earnings leads these households to deplete their assets or taking out a loan. Interviews conducted with people in the group of vulnerable artisanal fisherfolk found that families with few assets to begin with are frequently left with nothing. The absence of insurance to cover vessels exacerbates the risk.

Box 12: Floods in Viet Nam

- Nearly 80 percent of Viet Nam's population lives in areas prone to seasonal flooding from monsoon rains and typhoon storms (Red River and Mekong Deltas, Central Coastal Region).
- The Central provinces are susceptible to flash floods like those associated with Tropical Storm Eve in 1999.
- Floods occur at lightening speed due to the narrowness of the coastal strip (the distance from mountains to the sea can be as short as 70 km), low height above sea level and very steep mountain slopes.
- Torrential rains can burst riverbanks in five or six hours leaving little time to predict or announce imminent floods to vulnerable communities.
- The frequent failure of dyke systems (river and sea) increases the area of land subjected to disasters and the number of people affected.

Source: FAO, 2003.

Small and marginal farmers in the Red River and Mekong Deltas, and households living in urban slums, are also vulnerable to severe weather conditions and floods. The floods in 2000, the worst in 40 years, damaged about 200 000 hectares of paddy crop. In addition to the cost in human lives and livestock, flooding destroys housing, infrastructure, irrigation systems and equipment. In the Mekong Delta, families who live on the most low-lying land are regularly displaced for three months each year, with no option but to put themselves up in makeshift shelters along roads on embankments or to migrate temporarily to HCMC or more remote upland areas in An Giang and Long An Provinces.

Dangerous occupations and unsanitary living conditions

Poor households with few economic alternatives are often dependent on dangerous or unhealthy occupations. Artisanal fishing is a risky activity and long-term insecurity results from accidents involving disability, death or loss of property. Fisherfolk who cannot afford to invest in more powerful engines, safety gear or radio equipment are most at risk given their inability to monitor weather conditions or reach shore quickly when storms arise. They are also at risk of illnesses like acute respiratory infections, rheumatism and traumatic diseases after accidents. Women in these households, who fish standing for long periods in lagoons and bays throughout the year, are at high risk of gynaecological infections.

Hygiene and health care levels in coastal communities are low, due to inadequate access to safe drinking water, lack of toilets and insufficient access to health services. Beaches that are used as landing sites and to sort and clean the catch also serve as public latrines and the quality of drinking water is poor. Unsanitary living conditions are also a high risk for other

vulnerable people. Many poor urban workers with unstable occupations live in overcrowded slums where proper sanitation and water connections are unavailable. Proper sanitation is rare in the deltas. In the Mekong Delta, human wastes are often discharged directly into fish ponds or rivers and canals from which people draw their drinking water during the dry season.

3.4 Some policies, institutions and programmes are biased against vulnerable households

In addition to insufficient livelihood assets, adverse trends and sudden shocks that destabilise the livelihoods of vulnerable groups, small-scale farmers and fisherfolk and urban workers without stable employment are sometimes negatively affected by existing laws, policies and the way institutions work. In the worst cases, these mediating factors constrain the optimal use of assets and livelihood strategies, and limit opportunities for people to reduce their vulnerability and improve their food security status.

In some urban areas, municipal authorities have set restrictions on the circulation of cyclos on certain streets or the use of pavements by street peddlers, cutting them off from important sources of income, and increasing the likelihood of fines and harassment by police. Migrant urban workers are disadvantaged by their inability to officially change their place of residence. Workers without permanent residential status are excluded from jobs the public and private sectors, are sometimes unable to enrol their children in school, and are ineligible for coverage under national welfare programmes. During field work, they also reported that they are not allowed to apply for connections to municipal water and electricity services, and thus their only option is to pay more for lower-quality informal service providers.

Despite the development of a Fisheries Master Plan (1997) that seeks to provide a framework for the development of the fisheries sector, artisanal fisherfolk have so far largely been excluded from the benefits. Until now, priority has been given to upgrading the seafood export industry. Small-scale and artisanal fisherfolk have benefited less from a programme launched in 1997 to provide preferential loans for the purchase of new vessels and upgrading equipment, which have mostly gone to more influential families, and little investment has been allocated towards basic infrastructure used by fisherfolk supplying the domestic market.

Although several policies and programmes have benefited small farmers in the Red River and Mekong Deltas over the past decade (including the 1997 Land Law, exemption or reduction in agricultural land tax following the fall in rice prices, subsidies for high yielding seeds, relief interventions after natural disasters, etc.), other policies limit their potential. In particular, restrictions on the conversion of paddy land to other crops prevent small farmers from cultivating more profitable commodities. At the same time, bureaucratic restrictions on land transfer continue to hamper the development of a market in land even though the 1993 Land Law legalised land transfer.

4. How do vulnerable people attempt to maintain their food security?

Households that are vulnerable to food security are very dynamic units with a fragile portfolio of resources and strategies on which to draw in times of crisis. Based on the options offered by their internal asset structure and their access to external assistance, they adopt different strategies to reduce, mitigate and cope with risks and shocks that affect them. However, the choice of strategies available to households that are most vulnerable to becoming food insecure is extremely limited by their asset portfolio, and quickly diminished in times of severe or multiple shocks. Many of the strategies adopted by households to reduce, mitigate and cope with risks entail serious costs. The short-term strategies adopted to cope with a severe crisis sometimes deprive a household of its most valuable assets, seriously affecting their future livelihood options. Indeed, at a given level of income, there are positive and sometimes negative behavioural choices that increase vulnerability to food insecurity (see Box 13).

Box 13: Behaviour, choices and vulnerability in urban areas

Women save for their families: Women try to save money for their families and spend less for themselves than men. When they eat lunch at street restaurants (often the case among urban workers), they choose in-expensive and less nutritious meals, which negatively affects their health. Compared to their husbands, they bring home a higher proportion of their income.

Many temporary migrants try to save: A large proportion of non-resident migrants who send remittances home or save to invest in their home place tend to minimise their living expenses including food. Even when they have a relatively good income, they often eat a poor diet.

Saving on food to afford education for children: Several urban families regard education as their best opportunity to escape poverty, and are prepared to eat a poor diet to save on food expenses in order to send their children to secondary school.

Negative social behaviour: Drinking alcohol and gambling can absorb a significant share of men's income even when they are not addicted. Family break-ups place an extra burden on women and children who often do not receive support from the father. Some reports suggest that nearly a third of poor households consist of broken homes (Campbell, 1999).

This chapter reviews the types of risk management strategies adopted by people in the four vulnerable groups in response to the various risks that threaten their production and/or access to food. Table 6 below summarizes the main risk management strategies adopted by the four vulnerable groups. Understanding the nature of these strategies is crucial to identify areas of risk management and the long-term costs of these for vulnerable households. It is also essential to enable the identification of a range of options through which the Government and its partners can actively support these households to more effectively manage the risks faced and prevent them from pushing people into food insecurity.

Table 6: Risk management strategies adopted by the vulnerable groups

Risk management strategy	Small farmers of the Red River and Mekong Deltas	Small farmers of the Northern Region	Artisanal fisherfolk of the Central Coastal Region	Poor urban workers with unstable employment
<i>Changes expenditure and behaviour</i>				
Reduce food intake or switch to cheaper foods	x	x	x	x
Store rice	x	x	x	x
Home processing of fish for lean season			x	
Withdraw children from school	x	x	x	x
<i>Loans and external support</i>				
Loans in cash or kind from neighbours or relatives	x	x	x	x
Loans from money lenders or traders	x	x	x	x
Loans from HEPR programme	x	x	x	x (eligibility limited to some residents only)
Gifts and donations from community, government or charities	x	x	x	x
<i>Selling assets</i>				
Depletion of assets (stored rice, jewellery, livestock, tools, house)	x	x	x	x
Seasonal or long-term migration for wage labour	x	x	x	
<i>Others</i>				
Illegal activities (e.g. exploitation of timber, hunting protected animals, trafficking of women, destructive fishing methods)		x	x	x

4.1 Changing expenditure and consumption patterns

Many of the food insecure and vulnerable households profiled change their household expenditure and consumption patterns in an attempt to cope with inadequate earnings, food shortages or shocks. Reducing the quantity, quality and/or frequency of food intake is a typical coping mechanism. For instance, marginal households in urban areas and the Red River and Mekong Deltas shift to cheaper rice or eat only rice soup. In the Northern Region, households switch to less nutritious foods such as grains of lower quality, cassava, sweet potatoes, wild roots and tubers from the forest during periods of low income. When there is a severe food shortage, adults in these households may eat only one meal in the morning. The most vulnerable artisanal fisher families also reduce the quantity of food consumed, switch to dried fish and lower quality rice, and supplement their diet with less popular foods such as cassava and sweet potatoes. Reducing food intake entails a long-term disinvestment in health and nutritional well-being. By reducing the quantity and quality of food intake, people in each of these vulnerable groups exacerbate the already existing deficiencies in their diet and aggravate malnutrition. The tendency of women within many of these households to eat less when food and income is scarce results in a higher incidence of female malnutrition. The high and “sticky” level of child malnutrition is another testimony to this.

Another typical risk management employed by some vulnerable households is to withdraw children from school to save on school taxes and other fees¹⁶, and increase household labour inputs. Boys from artisanal fishing families start working on boats at an early age, while children of some vulnerable households in urban areas and the deltas work in manufacturing and construction. Although saving money in the short term, taking children out of school and into labour reduces the household’s human capital, exposes children to new risks (including work-related accidents and exploitation) and decreases their choice of future livelihood strategies, trapping many in long-term poverty. On the other hand, as illustrated above, some households in urban areas are prepared to reduce their food intake in order to be able to send their children to secondary school.

4.2 Selling or mortgaging assets

Households that face unexpected shocks often capitalize off their assets, such as jewellery, stored rice, livestock, equipment, land or housing (mainly in urban areas), to obtain money for urgent outlays. In the Mekong Delta, households that are most vulnerable are often forced to mortgage or sell part or all of their land to cope with crop failure or pay for medical treatment of the ill family member. Families with unstable incomes in urban areas sometimes have no choice in times of crisis but to sell their house, often below market value. Sometimes, they continue to live there, paying rent to the new owner. Artisanal fisherfolk rarely sell their boats, however, in cases where they are unable to repay their debts, they may leave fishing or become a crew member. Selling assets to cope with a shock often traps a household in poverty for several years as illustrated in Section 3.

¹⁶ School taxes represent only a small share of the cost of instruction, which also includes various contributions towards school maintenance, management and the cost of books.

4.3 Borrowing food or money

In Viet Nam, data show that private transfers between households are a significant source of income for many households, and twice as important as public transfers (Conway & Turk 2002). Borrowing money or rice from relatives, neighbours, friends or moneylenders is a common coping mechanism. In order to help bridge the lean period in the Northern Region, most households borrow cash or money from relatives or neighbours at low or no interest, or take high interest loans (5 to 15 percent per month) from moneylenders or traders to purchase grains on the market. Households interviewed in the Central Coastal Region indicated that they rely on various sources of informal loans to bridge the off-season and finance fishing operations. Loans that are received from better-off fishing families are sometimes repaid in labour such as doing maintenance work or helping on board. Traders are an important source of loans for fisherfolk and for farmers living in remote upland highlands. The interest rate is usually low but the loan receiver faces unfavourable conditions in trading the commodities.

In urban areas, small loans from neighbours or relatives are used not only to buy food but to cope with high one-time expenses such as school fees and taxes. For some households, buying goods on credit is a way to cope with lack of cash. Although poor households generally have limited access to formal sources of credit, some small farmers in the Mekong and Red River Deltas have been able to obtain short or medium-term loans from banks. Similarly, some of the resident workers interviewed in urban areas indicated that they were able to take out loans under the HEPR programme, which provides subsidised credit through the Viet Nam Bank of the Poor and the Viet Nam Bank for Agriculture and Rural Development. Although these loans are officially provided for income generation, urban households in urgent need of cash sometimes use them to pay off a high interest loan taken to cope with an emergency.

Loans of food, labour and money help households facing shocks or stresses to better cope. However, they also entail risks. Marginal farm households may be required to repay in-kind loans of labour at a time when their own fields need attention, which could disrupt their farm activities. Households that borrow money also face the risk of losing some or all of their assets or falling into a spiral of debt if they are unable to repay loans taken out.

4.4 Seeking employment as wage labour

A common risk management strategy among all the vulnerable groups profiled is to seek local wage labour employment. The main opportunities are to work for better-off farmers (tending fields, ploughing, harvesting, etc.) or in the construction of roads, infrastructure and houses (in the Northern Region and deltas and also in urban areas where construction is one major occupation) or on boats (Central Coastal Region). Opportunities to take advantage of wage labour sometimes involve seasonal migration during the off-season to work in the construction sector, commercial farms or factories.

4.5 Engaging in seasonal or long-term migration

For people with few other alternatives, seasonal or long-term migration in search of wage labour is a strategy to cope with shocks. Migration is both an individual and a household risk management strategy since remittances may provide important security to rural households exposed to production risk in the agricultural economy (Conway & Turk 2002). In the Red River and Mekong Deltas, men and women from vulnerable households often migrate to urban areas (such as Hanoi, Hai Phong and HCMC) for short periods in search of work.

Sometimes adults who migrate to the Central Highlands, urban areas or industrial zones eventually resettle their entire family there. Landless labourers in the Mekong Delta occasionally move to towns with their entire family to find employment when seasonal agricultural jobs in their home area are exhausted.

Among vulnerable artisanal fishing families along the central coast, there is an increasing trend of long-term migration to urban areas to help cope with unstable incomes and to raise funds for investing in fishing assets. Adolescents are sent to the economic zones of South Viet Nam to work as contractual labour in the building sector (boys) or in the garment and footwear factories (girls). When they start their own families, this long-term migration usually becomes permanent, in which case remittances become intermittent and may eventually cease.

While migration is evidently a crucial way for vulnerable households in rural areas to increase their earnings or cope with events such as landlessness, migration also exposes households to new risks. As previously indicated, many migrants live and work in unsanitary and dangerous conditions, are exposed to new risks of exploitation, face social exclusion and discrimination linked to their origin and lack of residential status, and often enter a saturated urban labour market.

4.6 Increasing use of common property resources

Rural households in the vulnerable groups profiled indicated that they have traditionally intensified the use of the natural resource-base and in particular the common property resources, including forests and rivers, when food production is insufficient. Therefore, in many areas the use of common property has become unsustainable, threatening the long-term availability of this option. In the Northern Region, remaining forest areas tend to be far from settlements and over-exploited, while agricultural intensification and the abandonment of fallow practices in the traditional swidden areas result in loss of soil fertility and widespread erosion. In the Central Coastal Regions, rivers and near-shore fishing grounds provide ever lower income earning potential due to over-exploitation. Landless farmers in the Mekong River Delta also indicated that they help to secure their living by fishing on rivers, canals and flooded areas during the flooding season when there are fewer job opportunities.

4.7 Seeking gifts, donations and assistance from families, communities, government and other programmes

Gifts and assistance from family and local communities are an important source of support during hard times. Many rural people reported that struggling households in their area receive labour and in-kind help from neighbours. While most gifts flow between relatives and are given and received within the local areas, remittances are occasionally received from family members living abroad. Although community support (in the form of gifts and loans) is important to households facing difficulties, the scope of this support is limited by a simple lack of resources. At the same time, such gifts tend to reinforce inequalities and increase the vulnerability of all involved to the point where mutual mechanisms may break down in the face of a covariate shock in the future (Conway & Turk 2002).

In some cases, national and local government authorities, mass organizations and external institutions (bilateral donors, international and non-governmental organizations, etc.) also provide a source of assistance to vulnerable households. National development programmes, such as the National Target Programme for Hunger Eradication and Poverty Reduction and the 1 700 Poor Communes Programme (Programme 135), which seeks to generate income

and employment, improve infrastructure and build local administrative capacity in communes faced with extreme difficulties in mountainous and remote areas, are targeted at poor households.

However, vulnerable households involved in this study reported that they receive little in the way of state assistance in managing risk. Although official development assistance (ODA) represents a large flow of funds in Viet Nam¹⁷, it is argued that greater attention is needed to ensure that the poor are genuinely benefiting by effectively targeting the more isolated and needed areas (UNDP 2002).

4.8 Changing livelihoods and seeking alternative sources of income

When one source of food or income is no longer available, households that are vulnerable to becoming food insecure look for new ways to survive. Many switch livelihoods either temporarily or permanently. For instance, during the flooding season when there are fewer opportunities for work as agricultural wage labour, landless farmers fish full-time on rivers, canals or flooded areas. Other people try to supplement their family income through petty trading or the small-scale production of handicrafts (such as traditional bamboo mats or leaf panels for houses).

In crisis situations, particularly when other risk management strategies have been worn out, some vulnerable households are driven to single, one-off, expedient illegal actions in an attempt to meet their basic food needs. In the Northern Region, households sometimes steal crops from fields or illegally harvest timber and protected plant and animal species. Trafficking of women for marriage in China has also been identified as a strategy to cope in the Northern Region. In urban areas, households that are vulnerable to becoming food insecure occasionally resort to illegal activities (such as prostitution, selling drugs, extortion or selling babies or daughters) as part of their risk management strategy. In the Central Coastal provinces, fisher families unable to meet their basic needs sometimes turn to banned or destructive fishing practices. Although such activities provide an income, they expose those pursuing them and their families to additional forms of risk and social exclusion.

¹⁷ Disbursements of overseas development assistance (ODA) in Viet Nam amounted to a cumulative US\$12 billion from 1993 through 2003 (UNDP 2002).

5. Opportunities to for reducing vulnerability: policy and programming options

Having identified transitory and structural factors that contribute towards food insecurity (section 3) and looked at the ways in which vulnerable groups manage risks, this section is able to point towards what should be done to address the needs and concerns of groups and sub-groups that are particularly vulnerable to food insecurity. Interviews conducted during the fieldwork with households belonging to the four vulnerable groups profiled, as well as government institutions, donors and mass organizations, drew attention to specific areas where actions are required to help households vulnerable to becoming food insecure to maintain and expand their asset base and strengthen their risk management capacity. Addressing the needs of vulnerable livelihood groups is essential in order to consolidate further the gains already made in enhancing household food security and reducing poverty at the national level. It is also important to counter the steady tendency, albeit moderate, towards greater inequality in Viet Nam¹⁸.

Different kinds of stakeholders at different levels, including national ministries, provincial and district line departments, donors, mass organizations and others, have a role to play in reducing the vulnerability of poor households. Many are committed to achieving this goal through the elaboration of a number of initiatives, policies and programmes, including the recently formulated Viet Nam Comprehensive Poverty Reduction and Growth Strategy that seeks, *inter alia*, to accelerate progress towards eradicating poverty and hunger, and reduce vulnerability and provide social protection.

The following section presents the main recommendations, identified during the research process for this study, to increase the asset base and build the resilience of vulnerable livelihood groups. The findings support recommended actions highlighted in other places by the Government and/or its partners. Indeed, it is important to recognize that a great deal of research and conceptual work¹⁹ has already gone into assessing the extent and spread of poverty in Viet Nam and identifying ways to reduce poverty and hunger, and it is hoped that the conclusions of this study will feed into this process.

5.1 Enhanced access to quality education, information, technologies and training, and improved health and nutrition

As identified in section 3, the limited quantity and quantity of livelihood assets increases the vulnerability of households. Low human capital among vulnerable households is a major constraint, which underlines the need for actions to enhance and build the human capital of vulnerable groups. In this context, there is scope to further expand access to, and improve the quality of, basic health care and education. This will require attention to reducing the costs of health and education services, which most vulnerable households consider are outside their reach, make them more accessible. Various ways exist to achieve these objectives including the payment of school fees and contributions in instalments, provision of school meals for children, or the development of collective voluntary schemes or micro-insurance (to reduce the need for households to take out high-interest loans to cover unexpected medical costs).

¹⁸ The 2004 Viet Nam Development Report reports that the expenditure share of the poorest 80 percent of the population has declined slightly over time, while that of the richest quintile has increased (World Bank, 2003).

¹⁹ This includes the 1993 and 1998 VLSS, the 2002 Viet Nam Household Living Standards Survey (VHLSS), a series of Participatory Poverty Assessments (PPAs) conducted in 47 communes/wards across all regions of the country in 2003, and seven Regional Poverty Assessments (RPAs) released in early 2004.

Research undertaken for this study also showed relatively high levels of malnutrition in households that are vulnerable to becoming food insecure. Various opportunities exist to improve nutritional status through expanding educational programmes targeted at mothers and children, building skills to improve the productivity of homestead (fruit and vegetable) plots, enhancing small livestock breeding and developing aquaculture in family ponds. The fieldwork also found that training on home processing and storage (for instance drying fresh fish) could help to improve household food supply during food deficit periods. Improving access to extension services, especially for non-rice crops and livestock and in isolated upland communities, was also identified as a priority among farm and fisher households. Some of the officials interviewed recommended the adoption of participatory approaches to extension, based on an interactive and field-based learning process, to strengthen the provision of demand-driven services that meet the needs of market-oriented and resource-poor farmers.

5.2 Build a more supportive and cohesive social environment

During the fieldwork, it became apparent that despite relatively rich stocks of social capital in Viet Nam, some groups (such as ethnic minorities and unregistered urban migrants) remain excluded from mainstream society or are hindered by exploitative relationships due to their lack of information (on market prices, legislation, rights, etc.). Discussions indicated the importance of finding ways to increase the availability of reliable information and other forms of social capital for these vulnerable groups, including households living in isolated areas. For instance, in response to the challenges and exclusion faced by ethnic minorities, suggestions were made to increase the number of ethnic minority teachers and expand bilingual education, and improve knowledge and respect for minority cultures among local officials, extension agents and health care providers working in upland areas.

At the level of local government, suggestions were put forward regarding the need to enhance relationships between local institutions and communities, and to enable marginalised vulnerable groups to benefit more from existing development programmes and local development funds. Although the 1998 Grassroots Democracy Decree²⁰ is a step towards enhancing the transparency and accountability of local government, research found that the capacity of people to participate actively in decision-making processes is constrained by a general lack of awareness of rights and entitlements (World Bank, undated)

5.3 Increase secure access to, and advance sustainable and collaborative natural resource management

As indicated in 3.1.3, rural livelihoods that are vulnerable have declining access to and rights over natural capital. The deterioration of natural capital emerged as a key risk facing small-scale fisherfolk and marginal farmers, many of whom rely on these resources to supplement their food supply or income, particularly in the pre-harvest period and when there is little demand for labour.

Discussions with vulnerable groups in rural areas revealed that there is scope to enhance sustainable collaborative management of natural resources, including marine and inland fisheries and forest resources, through the development of mechanisms based on local control and ownership. During interviews related to over-exploitation of fishery resources used by

²⁰ Established the legal framework for the participation of citizens in local decision-making processes at the commune level and their right to "monitor" local government expenditures.

small-scale and subsistence fisher families, various solutions were proposed. These included a move towards improved management of fisheries, the protection of inshore breeding and reproductive grounds (including a moratorium on new entrants to the inshore zone), establishment of precautionary limits, and control of illegal and destructive practices such as dynamic fishing and encroachment by foreign vessels. In the Northern Region, continued support is needed to ensure that vulnerable remote communities, including ethnic minorities, are able to participate in and benefit from the ongoing national Five Million Hectare Reforestation Programme, which seeks to improve watershed management, generate jobs in forestry, and promote the sustainable exploitation of a wide range of forest products to stimulate local economies.

5.4 Increase access to privately-owned physical capital

Limited access to privately-owned physical capital (such as agricultural land, livestock, tree plantations, home gardens, secure shelter and buildings) was highlighted during the research as a core factor that increases vulnerability to food insecurity. In addition, it became clear that the poor quality of physical capital available to these households was another constraint. In the Northern Region, improving access to forest land emerged as a priority. In this context, recommendations were made to clarify and assign user rights, recognize collective land use rights, and ensure that marginalised households, including minorities and female-headed households, are empowered to participate in the land allocation process.

The change in upland land use patterns, particularly the reduction of agricultural areas through the establishment of forest plantations on barren slopes actually used for farming, threatens the ability of some households to produce food. Furthermore, under resettlement programmes, incoming migrants to upland areas have been allocated so-called “barren” land that may actually already be used by minorities for shifting cultivation and grazing, gathering wood, fodder and supplementary foodstuffs. Efforts are therefore necessary to ensure that the needs of resource-poor households regarding food production are clearly taken into account during the land allocation process (FAO GCP/VIE/020/ITA, 2000).

5.5 Increase access to publicly-owned infrastructure

There is a clear link between physical isolation and vulnerability in Viet Nam. In addition, while some vulnerable livelihood groups do not live in isolated places, they nevertheless lack access to essential infrastructure. Research has found that while the Government has invested heavily in the provision of infrastructure as a means of poverty reduction (for instance, through Programme 135, poor communes can select from five basic types of infrastructure according to their needs), the approach has tended to be fairly capital intensive (Conway & Turk 2002). There is, therefore, potential to promote the use of targeted labour-intensive infrastructure development as a means to provide employment and incomes to vulnerable groups, especially during the off-season (ibid.).

Fieldwork carried out in urban areas found that many casual workers live in unsanitary and dangerous conditions, without access to electricity, clean water and sewage treatment, etc. Easing the present regulation barriers to the urban poor will be essential to expand access to fairly priced services and eliminate the need to rely upon expensive and dangerous electricity connections. In addition to expanding access to infrastructure, some urban municipalities, with financial assistance from donors, are considering upgrading slum areas. However, upgrading slums is a challenging process and is likely to result in winners as well as losers. Although some vulnerable households may receive a new home, others risk losing relatively

cheap rent and many migrants might risk losing their home when they cannot demonstrate ownership. To be most effective, slum upgrading schemes should therefore ensure the participation of those concerned in defining modalities and selecting preferable options.

Infrastructure development programmes should also seek to identify the types of infrastructure most needed by vulnerable groups. For instance, despite the development of a Master Plan for offshore fisheries (1997), more attention still needs to be given to the development of critical infrastructure (protected landing places, markets, etc.) targeted at small-scale and subsistence fisherfolk along the Central coast.

5.6 Increase access to financial capital

Many of the households spoken to during this research indicated that lack of access to formal sources of credit is a key constraint that prevents them from enhancing their production and forces them to take loans from money-lenders at much higher rates in times of crisis. In this context, increased attention should be given to finding ways to expand access to appropriate credit and savings programmes. Despite the importance of savings in smoothing seasonal consumption imbalances and building household equity, the majority of formal financial institutions pay little if any attention to savings. For instance, the potential impact of the HEPR programme would be enhanced by providing incentives for saving, and by increasing the flexibility of repayment modalities according to the needs of vulnerable households.

There are examples of successful commune-level savings and credit cooperatives (known as People's Credit Funds) in Viet Nam, as well as effective schemes supported by NGOs, donors and the Women's Union. However, demand for these services far exceeds supply, and many households are still not aware of the available options. Improving access to appropriate savings and credit facilities, coupled with skills development, would help vulnerable groups to increase their asset base, while offering an additional risk management strategy on which to draw in times of crisis.

5.7 Ensure policies and institutions work in support of vulnerable groups

Develop policies and programmes to stimulate employment

Limited and erratic wage labour opportunities was repeatedly stated as a factor contributing to food insecurity. Many households that are vulnerable face particular difficulties when wage labour is hard to find. In this context, diversifying rural livelihood options and expanding off-farm income generating opportunities in the deltas and uplands is urgently needed, particularly since agriculture cannot continue to absorb the steadily growing labour force. Opportunities exist to increase employment generation in rural areas through the development of handicrafts and small industries (including processing of agricultural and forest products, ecological and cultural tourism and mineral extraction) in which local people are able to participate and benefit. There is also scope to generate rural employment through the development of agro-processing industries in the Red River and Mekong Deltas. Agro-processing could exploit the large and increasing production of agricultural commodities by adding value to local farm products before they are exported to nearby cities or abroad.

Favourable environmental and climatic conditions in lagoons and bays along the Central Coastal Region provide ample opportunities for the development of aquaculture based on high-value species like shrimp, molluscs and lobsters. Artisanal fisherfolk have until now largely been excluded from participating in these opportunities. Policies and programmes could be developed to enable artisanal fisherfolk to take greater advantage of aquaculture

opportunities, and to manage the negative impact of aquaculture development related to privatisation of fishing grounds and destruction of reproductive habitats. Although there is little margin for artisanal fisherfolk to increase the total seafood catch, with appropriate technologies, training and financing, there is scope to increase profits and generate new sources of income by processing raw materials into higher value traditional products like fish balls, roasted fish or fish floss.

In urban areas, the fieldwork found that there is potential to assist casual workers with entrepreneurial ideas to start micro-enterprises through expanding access to low-interest loans for start-up capital (regarded as the main constraint by casual workers) and provision of training on business management and market research.

5.8 Remove restrictions on growing alternative crops on paddy land and promote increased farm diversification

Interviews with farm households in the deltas and uplands indicated how some policies work against them. In this regard, proposals were made for the removal of restrictions on the conversion of paddy land to other crops and elimination of policy biases and constraints in credit, extension and marketing. Farmers also expressed their interest in expanding their skills and knowledge to increase profitability through greater diversification, which offers good potential to increase incomes and expand local off-farm income generating activities. Low-risk opportunities exist for small and marginal farmers in the two deltas to diversify into more profitable alternatives to paddy such as livestock, aquaculture, cash crops (vegetables, fruit, cotton, etc.), either alone or combined on the same area like in the VAC system (livestock, fish, and horticulture). The warmer climate and lower frequency of typhoons in the Mekong Delta provides favourable conditions to breed high-value tropical species like tiger shrimp. However, care must be taken to ensure an environmentally friendly approach and provide adequate support service to limit the number of farmers becoming landless after repeated losses from shrimp disease. The ecological diversity of the Northern Region, which encompasses tropical and temperate climatic conditions, provides opportunities to diversify into medicinal plants, organic tea, fruit and timber trees, and livestock, many of which could find a market across the border in China. Potential to further develop aquaculture in many parts of the Northern Region, particularly by integrating fish ponds, gardens and livestock at household level, could also be exploited.

5.9 Improve on-farm production and increased profitability

There are opportunities to increase the profitability of small and marginal farmers in the deltas and midlands by reducing the use of inputs such as pesticides and fertilizer, which can currently absorb 40 to 45 percent of farm expenditures. Experiences with Integrated Pest Management (IPM) in Viet Nam demonstrate that pesticide costs can be reduced by two-thirds or more and fertilizer used more effectively. At the same time, IPM would help to counteract the appearance of pests and soil degradation, which are problems with intense rice cultivation. In the Northern Region, although the expansion of irrigated areas is reaching its limits, there is scope to increase productivity through upgrading and improving the management of existing irrigation schemes.

5.10 Minimise the negative effects of structural changes in the job market

Structural changes in the job market, characterised by a decline in the number of jobs in manufacturing and state-owned enterprises and a rise in the availability of skilled jobs in industrial parks and export processing zones, are having a serious effect on the two thirds of the urban workforce that is considered unskilled. Ensuring sound policies and effective programmes to minimise the negative impact on workers and enable them to take advantage of new opportunities are therefore important. In this regard, there is scope for both the public and private sector to expand access to relevant vocational and skills training, particularly for youngsters in urban areas, and improve amount and quality of information about employment and training opportunities.

5.11 Facilitate the registration of de-facto resident migrants.

Lack of residential status was identified by unregistered migrant workers in urban areas as a major factor in their inadequate access to education, jobs and municipal services. Facilitating access to residential status will therefore be essential to improve the economic and social well-being of unregistered migrant families living as long-term residents in urban areas. Phasing out registration restrictions would help to improve the efficiency of the labour market, enable migrants to access basic social services (sanitation, electricity, education, etc.), reduce social exclusion, support the integration of migrants into the formal economy, improve the accuracy of population data and facilitate urban planning.

Table 7: Options for reducing vulnerability for each vulnerable group

Options for reducing vulnerability	Small farmers of the Red River and Mekong Deltas	Small farmers of the Northern Region	Artisanal fisherfolk of the Central Coastal Region	Poor urban workers with unstable employment
<i>Policies adjustments</i>				
Registration of de facto resident migrants				x
Full recognition of ethnic cultures and reduction of cultural marginalisation	x (Khmer in Mekong Delta)	x		
Remove restrictions on using paddy land for alternative crops	x	x		
<i>Development policies and programmes</i>				
Facilitate higher participation in the cooperative movement	x	x	x	
Improving information about job opportunities and provision of vocational training				x
Promote rural and urban micro-enterprises (processing of local products, niche markets)	x	x	x	x
Introduction of best practices on micro-credit (like group-based saving and credit schemes) coupled with skill development	x	x	x	x
Improved access to basic social services (including health voluntarily schemes and payment of school fees in instalments or through soft loans)	x	x	x	x
Slum upgrading				x
Allocation of forest land without affecting food production capacity of marginal farmers		x		
Irrigation development	x (particularly in the Mekong Delta)	x		
Ecotourism development		x		
Construction or upgrading of		x	x	

Options for reducing vulnerability	Small farmers of the Red River and Mekong Deltas	Small farmers of the Northern Region	Artisanal fisherfolk of the Central Coastal Region	Poor urban workers with unstable employment
infrastructures (roads, markets, ports, etc)				
Maintenance and extension of the dyke network against floods and sea intrusion	x		x	
Delivery of extension services to resource-poor farmers and promotion of farm diversification	x	x		
Nutritional education	x	x	x	x
Sustainable and eco-friendly aquaculture development	x	x	x	
Reduced production cost of paddy (through IPM approach)	x	x		
Improved food production in family homesteads	x	x	x	
Collaborative management of coastal resources			x	
Improved market efficiency (information, access, basic infrastructures, etc)		x	x	

6. Conclusions

By applying the vulnerable group profiling methodology in Viet Nam, large groups of vulnerable people with particular livelihood characteristics were relatively quickly located and profiled. The information generated through this process about the livelihood systems of these groups, the causes of their vulnerability and the strategies they adopt vis-à-vis negative forces, can be used to improve policy formulation and development programming and targeting in Viet Nam and consolidate the impressive gains already achieved in reducing food insecurity.

The profiles of the four vulnerable groups – small farmers in the Red River and Mekong Deltas and Northern Region, artisanal fisherfolk of the Central Coastal Regions, and poor urban workers with unstable occupations – have pointed to specific areas of action for the Government and international donors. Some of these areas for action – such as the need for increased investments in vocational education and training, support to make the costs of health care more manageable or increased access to savings and credit – are particular to all the vulnerable groups. Others – such as the need to facilitate registration of rural migrants in urban areas – are specific to particular groups. It is hoped that these findings and recommendations will help to draw attention to the challenges and risks faced by people at particular of becoming food insecure, and will feed into the ongoing efforts of the Government and its partners to accelerate a reduction in food insecurity for a larger number of people in the country.

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