

# **OVERVIEW OF FOOD SECURITY STUDIES IN THE WORLD AND VIETNAM**

NGUYEN THI THANH BINH

VUONG XUAN TINH

This article aims to consider the study of food security in Vietnam in the context of other studies in the world. However, given the limitation of document sources, we could only research documents on food security written in English. Our work also might not include works related to food security published in Vietnam in most recent years. By analyzing available documents, we only expect to give readers key ideas on issues involved in the topic.

## **1. Food Security Issue in the World**

Food security has received special attention from the world community, especially since the 1970s. According to a report of the Summit Conference on global food held in Rome, Italia (1996), about 800 million people in Africa, Asia and Latin America cannot procure enough food on a daily basis. Although Vietnam is the second rice exporter in the world – about four million ton per year, food security, especially that of ethnic minorities those who often suffer from disadvantage and poverty in the economic development process, still remains a major problem and needs to be solved. However, the definition of food security is debatable. Currently there are many different points of view. According to Maxwell, there are about 200

definitions on food security (Maxwell 1996: 155). This is probably because each individual or institution has its own approach to food security. For example, let's take two definitions of the two big international organizations that have very important influence on food security of the world and each nation. In 1986, the World Bank defined food security as "...ability of people in approaching food at anytime in order to have enough food for maintaining activities and health." According to the document Action Plan of the Summit Conference (held in Rome in 1996), it was defined that "Food security is only obtained when, at anytime, people can approach to materials as well as economics to have enough safe and nutritious food resources for food demand and habits, and for ensuring activities and health." Many argue that food security is the issue of poor countries in developing regions (Food Security for Developing Country 1981). However, recently it is found that food security issues are also important for developed countries because the quality of food directly influences human health; in addition, the food-market, especially in the context of socio-political fluctuation is an aspect that is concerning. The experience of Taiwan in the 1990s in dealing with clean food is a

valuable lesson of this (Food Security in Asia 2000: 205-228). In Thailand, the recent notion of having quality food and a good life has substituted for the traditional notion of having enough food: many fish in water and a lot of paddy in the field (Food Security in Asia and Pacific 2000: 294).

Concern about the level of food security has changed over several last decades. If in the 1960s and 1970s much attention was paid to international level and national level of food security, recently, as many claim, it is important to look at household and individual level of food security (Jonathan Rigg 2001) because there is a paradox that some countries such as Brazil export a great amount of food, but at the same time many people of such countries still suffer from food shortages (Pursuing Food Security 1987: 1). Because of the shift of the concerned level of food security, many anthropologists in particular and practitioners of social sciences and humanities are increasingly concerned about food security. In regard to food security, economists and agronomists often focus on product issues and consider these as important indicators, whereas anthropologists or sociologists focus on consumption aspects and the reciprocity among a clan or community members (Parker Shipton 1990). At the household and/or individual level, the anthropologist often looks at local conception of poverty and insecurity. The local conception related to food security sometimes differs from that of social scientists or global institutions.

Food security often closely associates with various factors. According to Maxwell

and Wiebe, food security of the people outside urban areas links to systems of land possession and natural resources (Daniel Maxwell and Keith Wiebe 1998). Meanwhile, anthropologists are interested in understanding the role of culture, especially indigenous knowledge, in dealing with food security (Pottier 1999: 15-16). Food security is also closely associated with other factors such as population growth, food services and market, and the ability of generating non-agriculture income. In the context of contemporary environment degradation, the integration of food security and sustainable management of natural resources, especially that of ethnic minorities in the mountainous area is receiving attention from many people. This is a big challenge for today as well as for the future (Sustaining Food Security and Managing Natural Resources in Southeast Asia - Challenges for the 21st Century, 2002).

In the early 1990s, many asserted that food security must be seen as associated with the context of livelihood security because food security is only the manifestation of poverty (Jonathan Rigg 2001). However, while sustainable livelihood issues can be seen as a substitution for food security issues, food security is still an important issue, given its special position in livelihoods. Some scholars have established the issue of food chains (Jonathan Rigg 2001), or food systems (Food Systems of the World 1989). Following such approach, Pottier suggests that when considering food security, it is important to know “what they eat, what crops they grow and how they sell and buy, and for whom,” and this needs to be seen in

the integrated relations (Pottier 1999: 26). Maxwell also claims that food security can be obtained by the synthesis of many mechanisms, in which food demand is regulated by cultural background; and food security must be linked with nutrition and health security (Maxwell 1996).

To solve a food security problem, economists and agronomists are likely to advocate technology solutions, in which economic and technology investments are seen as key factors that promote agriculture produce. However, these solutions do not work for every case. For each country or region, based on particular conditions and a particulate time, certain solutions may be applied accordingly. In Vietnam, the key factor that helps ensure food security in recent years is the breakthrough in land policies (Food Security in Asia and the Pacific 2000: 305-311). However, for many African countries, the first problem needs to be solved is political stability because it is impossible to have food security before a ceasefire is obtained.

In short, over the last four decades, according to Maxwell, the awareness of food security has changed through three paradigms, including: (1) Level of concern was moved from international and national to household and individual concern; (2) From food to livelihood, or from food security to sustainable livelihood; and (3) From outsider's indicators to insider's conception. In this course, the involvement of anthropologists is increasingly intensive. However, the contribution of anthropologists is often effective in examining policies and

cultural elements related to food security (Pottier 2000: 1-4).

## **2. Food Security Issue in Vietnam and researches Concerned**

### ***2.1. Food Security Perspectives of the Vietnamese Government***

Over the past many years, the Vietnamese Government has paid increasing attention to the issue of food security, particularly sustainable food production. At the Summit Conference on global food held in Rome in 1996, the Vietnamese head delegate, the then Deputy Prime Minister Tran Duc Luong: "Poverty is the main cause that hinders economic development, affects political security and has negative impacts on environment and ecological systems". The Vietnamese Government has always considered the task of ensuring national food security first priority in agricultural and rural development as well as in socio-economic development of the country. The main objectives and policies of national food security in the coming years have been identified: diverse and sustainable agricultural production; rapid food growth in both quality and quantity and improvement of income; ensuring availability of food with higher quality and sufficient nutrition to improve the people's health and to ensure perpetuation (Trang Hieu Dung 2002: 13).

Over the past years, thanks to the comprehensive Doi Moi (Renovation) policy, Vietnam has recorded many socio-economic achievements. Agricultural production in all parts of the country has continuously increased. By the year 2000, the per capita food share reached 450 kg of

rice and it can be said that Vietnam has established food security at the national level with enough reserved food for home consumption and exports. However, Vietnam has not yet achieved food security in its full sense, especially at the commune and household levels. The food-need of everyone has not yet been met. There remain 1.5 million poor households and 150,000 households suffering from food shortages in the whole country. In some provinces such as Dak Lak and Quang Binh, more than 40% of children under 5 years of age are malnourished. The quality of life of many people in mountainous and remote areas, particularly ethnic minorities remain difficult (Nguyen Ngoc Kinh, 1998: 3).

For this reason, in Vietnam at present, the issue of food security is incorporated in the National Poverty Reduction Strategy. Policies on agricultural and rural development such as development of irrigation works, programs for seedlings, agricultural extension activities, Program 327, Rural Safe Water and Environmental Sanitation Program as well as the Poverty Reduction Program, and Program 135 are directly related to the National food security Program.

The above-mentioned strategy in combination with the Nutrition Program are major policies closely related to the Vietnamese State's guideline placing human at the center of the system of its policies at national level (Nguyen Cong Tan, 1994). Vietnam has successfully implemented the National Plan of Action on Nutrition in the 1996-2000 Period and is implementing the National Nutrition Strategy for the 2001-

2010 Period. The socialization of food security has been given due attention by many provinces and cities. Some major cities have started to care for food quality and food hygiene.

The Vietnamese Government has set new plan targets. They are to increase the average calorie intake per capita to reach the international standard (2,600-2,700 Kcal) by the year 2010; eradicate food shortages by 2005; and achieve food security by 2010 (MARD: 2001: 13). To achieve these targets, the Government is undertaking many measures to increase food production and invest in agricultural and rural development projects to eradicate hunger and reduce poverty. However, many challenges and constraints are facing achievement of those targets in general and the Government food security program in particular.

If the Vietnamese Government considers the immediate poverty reduction as a measure to ensure food security, international organizations are more concerned about food security in its other aspects. Both FAO, international organizations and NGOs hold that economic growth and the increase of food output only are not enough to ensure food security for nations and the whole world. The question is how can food reach those who are in food shortage. Food for everyone is a fundamental principle for social equality. Moreover, people have the right to enjoy food of quality, safety and hygiene based on their preferences as well as sustainable farming practice. International organizations also believe that the best way to ensure food security is that localities have to produce,

process, preserve and distribute food on the spot to avoid outside market impacts (ANGOC 1995; FAO 2000).

What is concerning is that at present food becomes a strategic item of goods in the international market but its price is fixed by developed countries. People in developing countries often suffer from risks in international trade. For this reason, some organizations such as Action Aid have launched campaigns for the right of the poor to have access to food in international trade policy (Action Aid 2000). The issue of sustainable food security has also been concerned by many organizations through research and application of knowledge and technologies in food production to bring about benefits to humans and environment (IRRI, 1997). In addition, the issue of raising gender awareness and gender role in food security has also been given attention by many organizations (FAO 1998, ANGOC 1995). In general, the main concern of these organizations focuses on poor groups, vulnerable groups and the protection of natural resources and environment in the national and global food security strategies.

In the global, the issue of food security has been studied since 1970s, while in Vietnam, research on this issue has just started since 1990s. During their research, writers often focus analysis on food security at household and individual levels with different factors. Economists and nutritionists have paid more attention to the issue of food products and factors ensuring food security for households (Nguyen Thi Loan 1998, Pham Van Hoan and CS 1995;

Tu Giay 1996), meanwhile, anthropologists and sociologists have been more concerned about the aspects of food consumption and food support from family clan and community and local notions about poverty and food shortages (Vuong Xuan Tinh 2003: 4). Indicators relating to such notions are sometimes different from the indicators established by scientists or international organizations. Moreover, anthropologists are also interested in the relationship between food security and the ownership of land and natural resources; the role of culture, particularly local knowledge related to the settlement of the problem of food security (Vuong Xuan Tinh 2004). Such consideration of the issue of food security from different socio-economic and cultural aspects at the grassroots level is of important significance to the development of policies and programs aimed at ensuring food security for communities and the nation. However, anthropological research on food security has just appeared in several research studies on some ethnic minority groups in Vietnam such as the Ro mam and Hmong (Vuong Xuan Tinh 2001; 2002; 2003; 2004), and these research studies are inceptive in both approach and content.

## ***2.2. State of food security of ethnic minority groups in Vietnam***

In Vietnam, the concept and indicators on food security are closely related to the concept and indicators on poverty. There are two different poverty lines: one from the Program on Hunger Eradication and Poverty Reduction of the Ministry of Labor, Invalids and Social Affairs and the other from the

result of the Vietnam Household Living Standard Surveys jointly conducted by the Vietnam General Statistics Office and the World Bank.

The poverty indicator set by the National Program in the 1996-2000 period which is household whose average per capita income is less than 13kg of rice per month is applied for all regions. For mountainous areas and islands, the indicator is less than 15 kg of rice per capita per month (equal to 55,000 VND). The indicator applied during the 2001-2005 period is 80,000 VND for mountainous areas and islands; and 100,000 VND for plain rural areas. Meanwhile, the Vietnam General Statistics Office's definition of "poverty" is having income lower than the minimum income needed to cover essential needs of food, clothing, housing, healthcare, education etc. This lower level of income is defined as "hunger" (or food shortage) to differentiate between "poor" and "very poor" population.

This hunger level is to identify a section of population who suffers from food shortage in several months in a year and often has to borrow from others and is unable to return. Food consumption is defined as average is 2100 kilo calories /person/day. Those who consume less than this figure are considered to be in food shortage (Statistical Publishing House, 2007).

Based on those indicators, the poverty percentage in Vietnam in 1993 and 1998 was 58% and 37% respectively, the percentage of food shortage was 25% and 15% respectively. In 2000, these figures reduced but the percentage of poor

households was still 32% and the percentage of households in food shortage was 13%. However, there are disparities between regions and ethnic groups.

Statistics also show that in the general context of poverty and food shortage in Vietnam at present, ethnic minority groups, particularly those living in remote and out-of-the way areas are seriously facing lack of food security. Except the Hoa ethnic minority group, the percentage of poverty among the ethnic minority groups in Vietnam is very high: 84.6% in 1992/1993 and 75.2% in 1997/1998 (Statistical Publishing House, 2008). Although only accounting for 14% of the country's population, the ethnic minority people account for 29% of the total poor population. The poverty disparity between the ethnic minority groups and the majority Kinh is great. In 1998, the poverty percentage of the Kinh was 31%, the figure of the ethnic minority groups was 75% (Consultative Group Meeting of Donors for Vietnam, cited from Vuong Xuan Tinh 2002a: 191).

Indicators on poverty and food shortage are not only seen by the Government and international organizations but also considered by the community, village heads and village old folks who are daily witnessing people's confrontation with food shortage (FAO 2000: 25). Some research studies demonstrate that the rich poor concept of communities is often different from the national criteria (Vuong Xuan Tinh 2003: 12). Research studies on the state of food security in ethnic minority groups in Vietnam often deal with the food shortage in

how many months in a year instead of other indicators.

Many ethnic minority groups in Vietnam at present often suffer from food shortage from one to three months in a year. In some upland areas where the Hmong people live, local people are in shortage of food for from 3-6 months/year (Vuong Xuan Tinh 2003). In Da Krong mountainous district of Quang Tri province, half of the district population suffers from food shortage between 3 and 6 months in a year (Oxfam Hong Kong/Vietnam 1998). In some special cases, people lack food for between 6 and 8 months/year (Bui Quang Toan 1996:34).

From fieldwork in these communities, studies set criteria for the division of households lacking food security into three categories. The first category is households who temporarily lack food security. They are households who do not have enough food for a certain period of time due to unforeseeable or unpredictable reasons. The second category is those who lack food security by cycle. They are households who are in repeated food shortage in certain periods of time in a year due to foreseeable and predictable reasons. And the last category is households who are in chronic food shortage due to being always unable to produce food by any means (Oxfam Hong Kong/Vietnam 1998: 2).

Not only facing poverty and food shortage, ethnic minority groups in Vietnam are also confronting the state of unsustainable food production. The research findings on the systems of farming and livelihoods as well as the issues of land and natural resources have pointed to many

challenges in the process of socio-economic development and ensuring food security in these ethnic groups.

Ethnologists and agriculturists in Vietnam often divide ethnic minority groups into three groups based on their residential areas and agricultural farming systems. The first ethnic minority group includes the Tay, the Thai and the Muong who live in valleys and are experienced in wet rice cultivation in combination with farming on sloppy land around their residence. The second group comprising the Dao and the Kho Mu residing in the midland or also called middle stretch of land mainly lives on upland cultivation. The third group comprising ethnic minority groups living in the uplands such as the Hmong has the tradition of shifting and upland cultivation. In addition to food products from upland cultivation, food gathered from forests is also an important source for these two ethnic groups. So in the traditional society, the issue of food security of each household family of upland ethnic groups is based on three factors: agricultural production, hunting and gathering and mutual support.

Prior to 1954, the categorization of ethnic minority groups by their residential areas and farming systems was quite stable and their farming systems were rather sustainable with less negative impacts on the environment. Due to the fact that there was not yet a population pressure, the exodus of migrants from plain to mountainous areas or from mountainous to mountainous areas did not face land scarcity. Fallow stages were longer, ensuring the rehabilitation of land and slash-and burn farming was limited.

As time goes by, many State policies and the process of socio-economic development have affected and changed the traditional farming practice and food finding mode of ethnic minority groups. After the Agrarian Reform in 1954 and since late 1950s, the collectivization in agricultural production started in the ethnic minority areas. Alongside with this movement was the Party and State policy on Settlement to Sedentary Farming, mobilizing ethnic groups which used to live in the uplands to resettle in the lowlands.

The Hmong, the Dao and other upland ethnic groups have been moved down to resettle in the valleys together with the Tay, Thai, and Muong. From being upland farmers, they became members of agricultural cooperatives and were engaged in wet rice cultivation. In spite of the success of the cooperative economy that is in the building of irrigation systems, the introduction of new farming techniques and new rice strains and intensive farming, the already limited area for wet rice cultivation in the valleys did not meet the food demand of everyone. Meanwhile, during this period of time, slash and burn farming and forest exploitation were strictly prohibited. For this reason, during the late 1970s, and early 1980s, the forest area was restored remarkably, but the mountainous areas of Vietnam were faced with a serious food crisis.

The Party Resolution 100 on contractual quota released in 1981 helps partly improve the agricultural production by contracting farmland to farmer households. However, due to the weaknesses of the collective

management, food yield and food output did not increase remarkably and the food demand of the people was not fully met. In face of this situation, alongside the openness of the Resolution on contractual quota, people returned to their practice of upland and shifting cultivation. From 1982 to 1989, especially from 1987 to 1999, Vietnam's mountainous areas witnessed an ever increasing movement of forest destruction for cultivation. Everyone tried to reclaim some certain terraced fields for cultivation. The fallow stages were shortened and the upland was fully exploited for cultivation, sharply lowering the crop yield, and soil erosion became very serious, thus pushing this farming system into an ecological crisis (Castella and Dang Dinh Quang 2002: 83).

In 1989, the Party Resolution 10 on Piece Work System brought a drastic change in agricultural production in the whole country. Farmland has been allotted for each household for cultivation. However, since then, in some northern mountainous areas, households who had inherited farmland or who reclaimed land by themselves before joining agricultural cooperatives started to claim over their land. Many old households in the community and newly settled households only have a very small area of wet rice fields (estimated at one third of the total area of farmland) with low quality of soil (Castella and Dang Dinh Quang 2002). In the Central Highlands, there have been land conflicts with local ethnic groups (Vu Dinh Loi, Bui Minh Dao, and Vu Thi Hong 2002: 157).

Also since the implementation of Resolution 10, alongside the increase in

population growth, land conflicts, land occupation and land trading have occurred en masse, thus resulting in the shortage of farmland faced by many ethnic minority households in many regions. The result of a socio-economic survey in Lai Chau province shows that up to 79% of households lack arable land and 46.3% of households lack upland for cultivation (Institute of Ethnology, cited from Vuong Xuan Tinh 2002: 193). Meanwhile in the Central Highlands, this situation was also serious. The result of a socio-economic survey in Dak Lak province shows that only 7/29 communes and 15/81 villages have sufficient cultivable land; 9/29 communes and 17/81 villages lack one third of cultivable land; 6/29 communes and 28/81 villages lack half of cultivable land; 7/29 communes and 21/81 villages lack three fourths of cultivable land (Vu Dinh Loi, Bui Minh Dao, Vu Thi Hong 2002: 163).

Many research studies demonstrate that the differences in the use of land, particularly wet rice fields (plain rice fields in valleys and terraced fields) has created the gap between the rich and poor among the ethnic minority groups and is a basis for disparities in food security between households (Vuong Xuan Tinh 2003: 7). The farmer population in Vietnam's Northern mountainous areas is divided into two groups: one group sufficient in food thanks to wet rice farming and the other insufficient in food because having no farmland. For this reason, today, the ethnic minority people see the significance of wet rice fields to food security. The first priority is given by households insufficient in food at present to the purchase of or development of

wet rice fields (Castella and Dang Dinh Quang 2002: 217).

In 1992, the policy of granting forest land use rights to households was implemented. The objective of the land allotment program was to protect forests, develop farm-level economy and apply a system of stable livelihoods for upland inhabitants. This new policy has exerted profound and positive impacts on the lives of people who were used to the traditional practice of shifting and upland cultivation. Today, people have the right to grow industrial crops, trees for logging and fruit trees on their allotted land. The destruction of land for cultivation has been limited because land has already been marked for communities and villages.

Those households who have more farmland and are self-sufficient in food often have conditions to develop forest to generate more income for the family. Industrial crops such as anise and cinnamon have been grown. Benefits from reforestation are not ensured due to the management and tending as well as the market. If there is a failure, households who are sufficient in food suffer less consequences as they have a stable production system to meet their food demand and are able to bear such risks. For households who were used to upland and shifting cultivation and are still struggling to meet their food need are often engaged in development of small-sized forests with a hope for early harvest after some years. They often grow fruit trees not industrial crops for early harvest to be sold in the market for money to buy food or to cover other family expenses.

Another negative impact of the policy on land and forest allotment on food security of the ethnic minority groups in uplands is the non-recognition of the traditional community ownership and community management of land which has limited access to food resources exploited from nature by many household families, particularly those who live in the uplands and poor households. The loss of community forests has also affected the development of livestock breeding of ethnic minority households. In many places, people had to reduce the heads of their cattle due to limited grazing areas (Vuong Xuan Tinh 2002: 194)

The lack of land for cultivation and shortage of food have also made many households unable to diversify their production. The expansion of production and business or breeding of cattle and poultry and aquaculture on large scale demand big capital investment. The current credit policy requires households to put their land as collaterals. This is the reason why poor households cannot have access to credit sources. Projects implemented in community demand certain contribution by households when joining them such as capital, labor, and land. Therefore, the access to development projects and opportunities to generate income of poor households is more difficult. And so in the context of farmland scarcity, degrading environment, low food yield and difficult conditions for diversifying economic development, most of the ethnic minority households, particularly those who were used to upland and shifting cultivation have sought all coping mechanisms as responses to serious food shortage.

### **3. Coping mechanisms of ethnic minority community as responses to the lack of food security**

To cope with the situation of food shortage, the first thing the ethnic minority people think of is to develop production and increase food output. For wet rice farmers, intensive farming, introduction of technical advances and new rice strains play an essential role in increasing rice yield to ensure meeting the need for food of the households. For households having no or little farmland, particularly those who were used to upland and shifting cultivation, there is almost no choice when farmland has been allotted and forest land has been contracted out. In this case, they have to travel to deep jungle which is under the management of State farms and State-owned enterprises to find land for shifting cultivation. While these acts break the law, but those people have to travel dozens or hundreds of kilometers away from their village for several months to find land for food production.

Most typical shifting cultivation is seen in the Hmong ethnic minority group. In Hoa Binh province, the Hmong have often traveled to neighboring Son La and Thanh Hoa provinces to do the slash and burn farming (Nguyen Van Minh 2000: 84). When the forest resources in the region become scarce, many ethnic minority groups have moved from the Northern mountainous areas to southern provinces to find farmland for cultivation. According to incomplete statistics, by 1996, 350,000 people had migrated from the Northern

mountainous areas to the Central Highlands and Eastern Nam Bo. Most of them were from the Tay, Nung and Dao ethnic minority groups (Bui Quang Toan 1996: 37). Such migration caused a lot of risks to households. Each journey cost them dozens of millions of Dong. Households often have had less understanding of their destination, therefore they had to cope with many difficulties in the newly resettled area and some of them even had to decide to return to their old residential area (Castella and Dang Dinh Quang 2002: 216). Both of these cases can easily push households into debt and poverty.

Contrary to the above situation, some ethnic minority groups and households have chosen to sell or rent out their farmland to cope with food shortage. The result of a research study in some poorest communes in Da Krong District, Quang Tri Province showed that the percentage of poor households who have put out their farmland to lease is very high. In some Van Kieu villages, up to 48% of poor households and 80% of very poor households put out their land to lease for between one to two years (Oxfam Hong Kong/Vietnam 1998: 10). In the face of serious food shortage, people leased out land that is fertile and produces high yield. After leasing out their land, households often use the money to buy additional food to cover other necessary family expenses and find temporary jobs. These jobs often bring much lower income than farming. Land lease has deprived the households from an important income source in the year.

Historically, forestry has played an important role in the socio-economic life of the mountainous population, particularly those who have practiced upland and shifting cultivation. Forests and crops have provided food, feed for animals and fuel, bringing about a good source of income in cash for households. For this reason, forestry activities have affected food security of the local people (FAO 1989; 1994). Today, logging and the exploitation of forest products have been strictly prohibited. But due to low income earned from agricultural produce, many household families in many places still have to go to the forests for illegal logging and gathering of valuable forest products.

The research study in Da Krong District, Quang Tri Province shows that the income from forests remains an important source of the household economy, particularly for poor and very poor households. In some villages, the percentage of these two groups of households taking part in the exploitation of forest products reaches 100% (Oxfam Hong Kong/Vietnam 1998: 10-11). The result of the study shows that people will only stop illegal exploitation of forest products when their food security is ensured.

In their traditional society, ethnic minority people in the uplands were not used to hired labor force. Today, hired labor is popular. Many households often had to accept low income jobs, seasonal jobs and temporary jobs to improve their family food situation. Seasonal jobs and low income jobs are often related to agricultural production such as soil preparation, weeding and harvesting etc. Temporary jobs with low income are hard

works which need strenuous labor such as digging canals, making fences to protect fields, housing construction, cutting wood, gathering of by-forest products, timber transport, fishing in river or stream etc. While high and stable income activities (trading, development of eco-system production of garden, fish ponds and pigsties, and afforestation) need investment capital and only well-off families can afford, poor households have to accept low-income jobs to earn their living. This makes them poorer and inaccessible to food security (Oxfam Hong Kong/Vietnam 1998: 12).

Another coping mechanism in response to food shortage often seen in ethnic minority groups is to borrow and receive food from different sources: This is often done between households in the community and between households and the State and social organizations. In all localities throughout the country, it is estimated that about 60-70% of poor households get credit loans from the Fund for Poverty Reduction of between several hundred thousands and several millions Dong with an interest rate of less than 1% per month. In addition to the official credit source, households often access unofficial credit sources.

The first source is from close relatives, friends and neighbors with low interest rate or without interest. The research result shows that well-off and average household families often provide food support to their clan members more than other villagers. The support by food or in cash is still popular in the community on certain occasions such as funeral, wedding or housing construction (Vuong Xuan Tinh 2003: 11). However, due

to the conditions that most of ethnic minority people still face difficulties, the support of relatives and the community is not remarkable. Borrowing are small, mostly about 10- 20 kg of rice or twenty or thirty thousands Dong to several hundreds of thousands Dong.

The second source is from money lenders (who are often traders in markets or in townships and the majority Kinh) at high interest rates, normally between 4 to 10% per month. This is done under two forms: borrows in cash or in food or purchase of food and food-stuff on credit and repaid with interest. Observations from fieldwork show that poor households often suffer great disadvantages because of purchase food on credit. They often have to accept food with poor quality and higher price than the market price, and then have to repay with high interest rate. Because of difficult circumstances, many people accept this unequal credit form. In some places, there is another form in which poor households borrow money from well-off households and repay it with “work days”.

A question is raised here is that poor households often have to use most of their credit sources, both official and unofficial, for the purchase of food and for non-production purposes such as to cover medical treatment, the cost of funeral or wedding instead of investing in food production. This rate in the Van Kieu people in Da Krong District, Quang Tri province is about 70% (Oxfam 1998: 19). They borrow particularly from credit sources with high interest rate to cover family food

shortage makes poor households more difficult to escape from the poverty circle.

Education is a basic factor to improve people's knowledge to help apply technical advances in production to increase food output. So, education is closely related to food security. On the contrary, when people have to cope with the situation of lack of food security, they or their children have to decide to drop out from school to take part in production to earn their living or simply to lessen the family burden. In most of the ethnic minority areas in Vietnam, the illiterate rate is quite high. The illiterate rate in 2002 in the northern mountainous areas was 20.1% and in the Central Highlands was 14.1% (General Statistics Office 2004: 17). For ethnic minority groups living in uplands such as the Hmong, their lives remain difficult and the illiterate rate is much higher, reaching 80% (Bui The Cuong and Vuong Xuan Tinh, 2000).

Some research studies have pointed to the relationship between the lack of food security and the percentage of school dropouts. More than 20% of children from poor household families are not able to go to school and the percentage of dropouts in these households reaches 27%. The main reason is those household families are unable to afford their children's schooling (Oxfam 1998: 3). This evidence shows a vicious circle of low education which is the cause of an unresolved problem of food security.

Finally, people often cope with food shortage through the reduction of the number of meals and the quantity of food used in a

day. The question of quality of daily diet of the ethnic minority groups needs to be concerned. Even in the condition of bumper harvests people only consume a small amount of food because they have to be economical and to store food for future use. Their daily diet has low nutritional value because it comprises mostly starch food (OB, OHK and VAMCP 1998: 22).

Moreover, food in the mountainous areas comprises 35-40% of rice. People often have other types of food such as maize, cassava, potatoes, sweet potatoes and beans in their daily meals. During off-seasons, people have to go to the forests to dig yams and roots and gather vegetables and wild fruit to add to the family daily meals (Bui Quang Toan 1996: 35). For this reason, statistical results show that poor people suffer more malnutrition than those who are over the poverty line. However, the shortage of food affects family members differently. Women are more malnourished than men because they often eat less while their body needs more energy and nutrition during childbirth and child-raising. Old people are also more malnourished than young people because they have to work hard and were suffering from food shortage for a longer period of time in the past. They also give up food to other family members while the family is facing food scarcity. Meanwhile, the status of nutrition of men of working age has been less affected by the family food shortage (Colwell, Le Danh Tuyen & Nguyen Dinh Chung 2002).

Although the Government has tried hard to eradicate hunger, reduce poverty and ensure national food security, challenges of

poverty remain great for about one third of the country's population who has an income under the poverty line. Of this, ethnic minority people account for nearly 30%. There are many reasons explaining the situation of poverty in Vietnam in general and in the ethnic minority groups in particular. They include population pressure, scarcity of natural resources, environmental degradation, natural calamities such as floods and storms etc. (Ministry of Agriculture and Rural Development 2001; Bui Quang Toan 1996; Vuong Xuan Tinh 2003). However, in reality, the direct cause of the poverty and food shortage of ethnic minority households is the lack of land for cultivation and their limited capacity to have access to development opportunities.

In such a situation, ethnic minority people have sought different coping mechanisms as responses to food shortage depending on the conditions of each region and cultural practice of each ethnic group. Inhabitants who have the traditional practice of shifting cultivation often find forestland to clear for cultivation. Meanwhile, those who have settled down to sedentary farming have resorted to selling or putting out their farmland to lease to cover the family food shortage. In areas where there are economic diversities with high opportunities of employment, people often find temporary hired work to earn additional income, while in remote and out-of-the way areas, people have to find additional sources of food or by-forest products to batter food.

So, from traditional food based on *agricultural farming, hunting, gathering,*

*and mutual community support*, the food sources of the ethnic minority households in the uplands have seen new factors including *agricultural farming, hired labor, hunting, gathering, support from the Government, mutual community support and borrows*. However, some traditional supports such as mutual community support, hunting, and gathering tend to be lost sharply due to limited natural resources and negative impacts of the market economy. Meanwhile, hired labor and cash borrowings to ensure the food need appear to increase (Vuong Xuan Tinh 2002: 200). This makes the issue of food security for upland ethnic minority groups, which is already unsustainable, ever more confronting.

Although those coping mechanisms in response to food shortages are playing an essential role in the livelihoods of households, from the development angle, these are just temporary measures. Moreover, these mechanisms have had negative impacts on household economic development and natural resources. Some coping mechanisms have pushed households deeper into debt and poverty. This requires further and more comprehensive research on local coping mechanisms in response to food shortage by ethnic minority groups to make appropriate recommendations and solutions to help ensure food security and improve the lives of poor people.

## REFERENCES

ActionAids. *International Trade and Food Security*. Material for ActionAids staff and ActionAids partners. National Political Publishing House, Hanoi, 2000.

ANGOC. *Food Security for all*. Summary Report of the ASIAN ADVOCACY WORKSHOP "Food Security through Sustainable Agriculture". 20-22 September 1995. Bangkok, Thailand.

Bui Quang Toan. *On food security of ethnic minority groups*. Research results (1986-1996) by the Institute of Agricultural Planning and Designing. Agriculture Publishing House, Hanoi 1996. pp 32-52.

Bui The Cuong and Vuong Xuan Tinh. *Health and Education Needs of Ethnic Minorities in Vietnam*. Health and Education Needs of Ethnic Minorities in Sub-Mekong Region. ADB Project, Country Report, 2000.

FAO. *Rural Women and Food Security: current situation and perspectives*. Rome, 1998.

FAO. *Food Security: when people live with hunger and fear starvation. The state of food insecurity in the world*. 2000.

FAO. *Household food security and forestry: an analysis of socio-economic issues*. Rome, 1991.

*Food Systems of the World*. 1989. M. Shafi, et al. Jaipur.

*Food Security in Asia*. 2000. Wen S. Chern, Editor. Edward Elgar.

*Food Security in Developing Countries*. 1981. Alberto VanldDs Ed. Westview Press/ Boulder, Colorado.

*Food Security in Asia and the Pacific*. 2000. Asian Productivity Organization, Tokyo.

Food and Agriculture Organization. *Forestry and Food Security*. Agriculture Publishing House, Hanoi, 1994.

General Statistical Office. *Result of the Survey on Households Living Standards 2002*. Statistical Publishing House. Hanoi, 2004.

General Statistics Office. Hanoi *Results of the Vietnam Living Standards Surveys in 2002*. Statistical Publishing House. Hanoi 2004.

Government of Socialist Republic of Vietnam. *Towards National Food Security*. October, 1996. Country Paper, Prepared for the World Food Summit, Rome, Italy 13-17 November 1996.

IRRI. *Sustaining Food Security Beyond the Year 2000: A Global Partnership for Rice Research*. Medium-Term Plan 1998-2000.

Inter-sectoral Working Team. *Development Objectives of Vietnam*, Hanoi October, 2003.

Maxwell, Daniel and Keith Wiebe. 1998. *Land Tenure and Food Security: A Review of Concepts, Evidence and Methods*. Land Tenure Center, No. 129, January.

Ministry of Agriculture and Rural Development. *Proceedings of the national seminar on food security in Vietnam*. Hanoi, 6-7 November 2002.

Ministry of Agriculture and Rural Development. *Real State of food security in Vietnam: Progress made since the World Summit on Food in 1996*. Main targets. Hanoi Oct. 2001.

Nguyen Cong Tan. *Issue of "Household Food Security" in Vietnam*. International Workshop on "Household Food Security". 17 November 1994, Hanoi, Vietnam.

Nguyen Thi Loan. *Study on some factors ensuring food security for households having different socio-economic levels in Minh Tan commune, Vu Ban district, Nam*

Dinh Province. MA Dissertation, Hanoi Medical University, Hanoi, 1998.

Nguyen Van Minh. *Agricultural Adaptation of the Hmong in Vietnam*. Vietnam Social Sciences. No 6 (80), 2000. Statistical Publishing House. Vietnam – a moving tiger? (Vietnamese version)

J. A. Colwell, Le Danh Tuyen & Nguyen Dinh Chung. *Poverty and Malnutrition: Analysis of the 1992/93 and 1997/98 Vietnam Living Standards Surveys*. Food Security Occasional Paper No 1. June 2002.

Jean-Christophe Castella and Dang Dinh Quang (eds). *Doi Moi in the Mountains: Land use changes and farmers' livelihood strategies in Bac Kan Province, Vietnam*. The Agricultural Publishing House, Hanoi, 2002.

OB, OHK and VAMCP. *Food Security Study in Nga My Commune, Tuong Duong district, Nghe An province*. Ha Noi, 1998.

Oxfam Hongkong/Vietnam. *Monitoring indicators on food security*. The Da Krong Program, Quang Tri Province, Vietnam, Hanoi April 1998.

Rigg, Jonathan. 2001. *Food Security, Vulnerability and Risk: Linking Food, Poverty and Livelihoods*. Paper presented at the workshop “Sustainable Livelihoods in Southeast Asia, Hanoi. Vietnam, April.

Pottier, Johan. 1999. *Anthropology of Food: The Social Dynamics of Food Security*. Cambridge Polity Press.

*Pursing Food Security*. 1987. Ed. by W.Lald Hollist and F. LaMond Tullis. Lynne Rienner Publisher, Boulder and London.

Shipton, Parker. 1990. *African Famines and Food Security: Anthropological Perspectives*. Annual Review of Anthropology, Vol 19, pp. 353-394.

Socialist Republic of Vietnam. May 2002. *The Comprehensive Poverty Reduction and Growth Strategy*. Hanoi.

*Sustaining Food Security and Managing Natural Resources in South East Asia - Challenges for the 21st Century*. 2002. Contributed Paper Abstracts, International Symposium, January 8-11, Chiang Mai, Thailand.

Trang Hieu Dzung. *The National Policy on Food Security in Vietnam*. In: MARD. Proceedings of the national seminar on food security in Vietnam. Hanoi, 6-7 November 2002.

Vu Dinh Loi, Bui Minh Dao, Vu Thi Hong. *Ownership and use of land in Central Highlands provinces: Social Science Publishing House*. Hanoi 2000.

Vuong Xuan Tinh. *Food system of the Hmong in the context of food security*. Anthropology Review No. 1 - 2003. pp. 3-19.

- *Food security of the Ro Mam ethnic minority group*. Anthropology Review No. 5, 2001.

- *Food security of the ethnic minority groups in Vietnam uplands under social and cultural impacts* in the book: “Research Center for Natural Resources and Environment. Sustainable development of Vietnam mountainous areas: 10 years looking back and issues raised”. Agriculture Publishing House. Hanoi 2002.

- *Eating and drinking customs of the Vietnamese in the land of Kinh Bac*. Social Science Publishing House. Hanoi, 2004.