Frontier migration and global trade: the vulnerability of Vietnam's coffee farmers

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Introduction

This paper focuses on the dynamic interactions between internal migration and global economic processes, and the effects on the vulnerability of migrant livelihoods in Vietnam. Rapid economic growth and gains in poverty reduction during the 1990s have been largely attributed to the changes of the Vietnamese economy from a socialist command economy to an economy based on market principles (Fforde and Vylder, 1996). During this period land was allocated to individuals, a variety of private economic activities legalised, and controls on most prices removed. As a result of these changes, Vietnam became increasingly integrated into regional and international markets (Glewwe, Gragnolati and Zaman, 2002). At a national level, the changes to land reforms and registration systems mean that households in Vietnam have become more flexible in the pursuit of income diversification strategies to secure their livelihoods. Migrating from Vietnam's Red River delta to the Central Highlands is one such livelihood diversification activity helping to make optimal use of resources; though not always without any risks. Overall, individual welfare in Vietnam, has increased between 1992 and 1998, especially for those producing primary commodities such as coffee in the Central Highlands (Justino and Litchfield, 2003; Thoburn and Jones, 2002). Yet, since then, the upland area has experienced considerable economic turmoil where unchecked expansion of commodity agriculture, crop specialisation and increased integration into global markets can combine to generate greater vulnerability in small growers, provincial and national economies (de Fontenay and Leung, 2001; ICO, 2003a).

The aim of this paper is to identify the risk factors associated with migration for coffee farming in Vietnam's Central Highlands. Both quantitative household surveys and in-depth interviews in migrant sending and receiving areas provide information about the economic, demographic, social and environmental changes in both migrant origin and destination areas[1]. Findings indicate that when Vietnam became increasingly integrated into the global economy, internal migration to the highland frontier, largely facilitated by migrant networks, was the major driving force behind its burgeoning coffee industry. Feedbacks between different parts of the migration system however mean that any livelihood improvement experienced by coffee growing migrants in the short-term has come at the expense of increased vulnerability to shocks in international and regional coffee markets, the perils of environmental degradation and increasing social instability at the frontier.

[1] This paper emerges from PhD research conducted between 2000 and 2002 about 'Migratory Livelihoods in Vietnam: Vulnerability and the Role of Migrant Networks.' School of Environmental Sciences, University of East Anglia. Research was carried out in collaboration with the Center for Environment Research, Education and Development in Hanoi.

Researching the vulnerability of migrant livelihoods

Within development research migration is viewed as either a diversification strategy (Ellis, 2000) where labour migration is used to both maximise household earnings and to minimise potential losses through diversification (Stark, 1980), or a risk coping mechanism where people move between regions in order to cope with entitlement failure such as landlessness or other shocks (Davies, 1993). Why study migrant livelihood vulnerability? Migrants and their motivations are as diverse as their circumstances. Allen (2003) argues that it is important to focus on the 'voices' of migrants in order to disaggregate the general figures and trends that cloud the understanding of the processes that underlie migration as a livelihood strategy. This study puts migrants as actors at the centre of the analysis, situating them with their broader socio-economic and historical context of both sending and receiving areas. The benefits and costs of migration in livelihoods are often examined in terms of their measurable outcomes, for example the impact of remittances on income distribution (Lipton, 1982). However, this allows little insight into the complex factors that may produce these outcomes and even less about how to solve negative impacts of migration.

By considering migrant's vulnerability, we come to understand the particular importance not only of poverty, i.e. a state of having little, but also of being vulnerable to losing the little they have (Kanbur and Squire, 1999). The poor suffer disproportionately from risks because they lack the means to protect themselves adequately against them – this is what makes them more vulnerable. If an unforeseen event occurs, for example a fall in market prices for their main crop, a death in the family, or a flood destroying physical capital, the poor generally have very few assets to dispose of in order to address the problem. Moreover, loans and insurance against risk are often not available to the poor due to high interest rates. Crucially, vulnerability analysis includes households and individuals with different capabilities, not just the poor. Vulnerability is defined in this research as a function of the risks (i.e. the exposure to shocks and already existing livelihood vulnerability as a result of other shocks) and people's capability (i.e. their asset endowments and poverty status) to manage these risks effectively. Vulnerability is thus the possibility for a household to experience a decline in well-being (which further lowers the capability to cope with shocks) (Siegel and Alwang, 1999; World Bank, 2001; Prowse, 2003).

The opportunities of trade liberalisation and globalisation are said to be mainly positive for developing countries, however, this can also increase insecurity of the poor as greater financial interdependence amongst national economies enhances the transmission of shocks (Ravallion, 2003). The large scale movements of people in and out of poverty, (with those having managed to improve their positions often being pressed back down again by inflation, failing markets and other macro-economic shocks) has been partly attributed to this increased interdependence in other contexts (Hulme et al., 2001). It is therefore important to identify which aspects of globalisation are liable to affect the welfare of the rural poor, while also noting the impact that individual actions have on global processes.

For the purpose of studying migrant livelihoods in Vietnam I selected two case study sites; one district representing a major migrant sending area and one representing an area which has experienced continued in-migration. It is important to integrate perspectives of both sending and receiving regions in the study of migration (Boyle et al., 1998). With a focus on long distance, rural to rural migration, household surveys and semi-structured interviews were held during several research visits between 2000 and 2002[2]. A total of 108 migrant sending and non-migrant households, were interviewed for this study.

The sending area is Giao Thuy District located within the Red River delta (see Figure 1) which is characterised by high population densities and very poor per capita land endowment combined with good human capital (education and labour force) and physical infrastructure (Wiens, 1998). Located 90 km south-east of Hanoi and Hai Phong, the second and third largest cities in Vietnam, the local infrastructure is well developed and accessible to most. The region is characterised by relative ethnic and religious homogeneity where most people belong to the *Viet (Kinh)* ethnic majority, generally known as lowland Vietnamese. High population densities, with over 1,000 people per square kilometre, pose pressures on productive resources and limit livelihood opportunities (Dollar, Glewwe and Litvack, 1998).

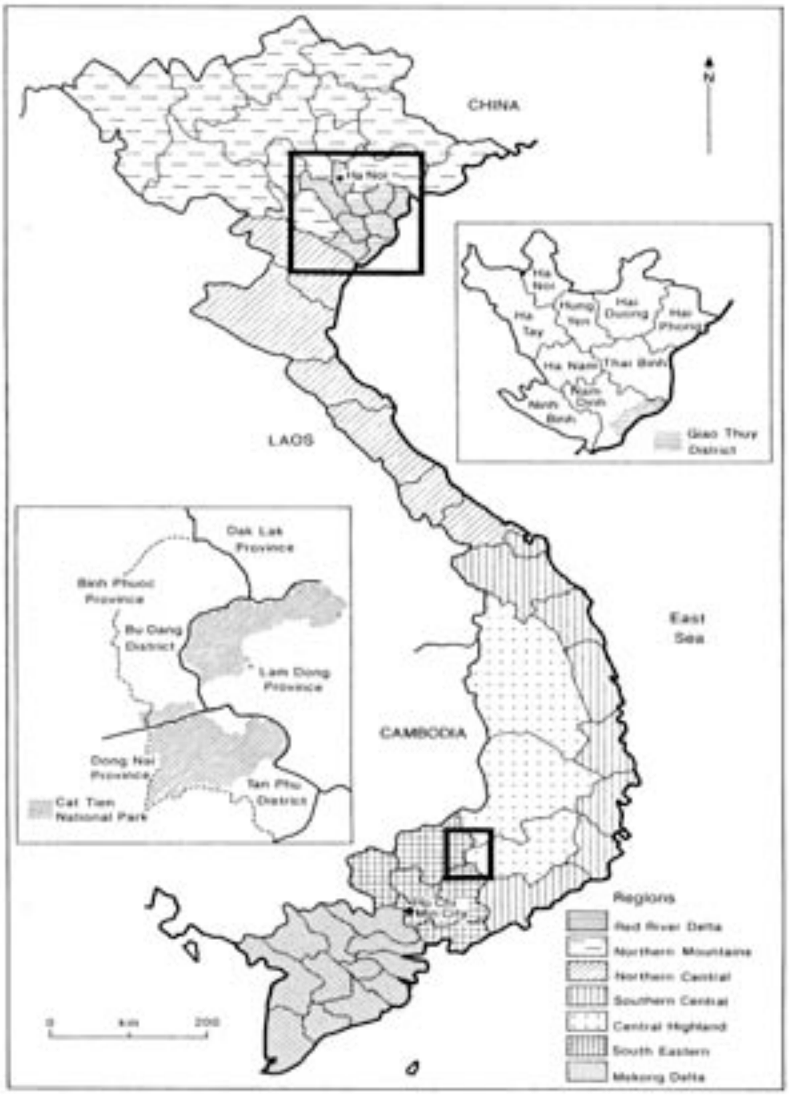


Figure 1. Research locations in Vietnam

[2] The quotes used in this paper were recorded during interviews I held with the help of a translator and sometimes recorded in Vietnamese to be translated at a later stage.

As Vietnam undergoes rapid socio-economic transformations, households in the Red River Delta respond with a lot of flexibility to the opportunities provided by natural resource availability and expanding export markets in the Central Highlands. Migrants from the Red River Delta take advantage of the increased global integration of Vietnam's commodity agriculture and are therefore able to both consolidate existing livelihoods and manage risks by increasing their income from farming in the short-term and accumulating assets (land, savings) in the long-term. These opportunities, however, come at the expense of increased uncertainty in respect to markets and environmental and social conditions in the destination.

The migrant receiving area is located in and around the Cat Tien National Park (CTNP). Cat Tien National Park is located at the southern plateau of Vietnams' Central Highland Region (Tay Nguyen, 150km north of Ho Chi Minh City. The Established in 1998 in its present form, the Park and its bufferzone span across three provinces: Dong Nai Province, Lam Dong Province, and Binh Phuoc Province[3]. The average population density in this area is estimated to be fewer than 100 persons per square kilometre (Cartographic Publishing House, 1999). The population is highly stratified along the ethnic lines of lowland Vietnamese; indigenous ethnic minorities; and ethnic minorities from northern provinces. These are largely characterised by differences in social organisation, resource management approaches, and connections to administrative structures and different settlement histories (Gilmour and San, 1999). This heterogeneity does not always exist without conflict. As discussed later in this paper, the cultural and economic marginalisation of indigenous ethnic minorities has been attributed to the influx of settlers from the lowlands (Evans, 1992; Jamieson et al, 1998).

Around one million permanent migrants are said to have moved to the Central Highlands between 1976 and 1995 with 200,000 persons settling there between 1990 and 1994 alone. During the same period, the Red River delta experienced a net loss of nearly 150,000 inhabitants leaving for Hanoi and the Central Highland provinces, yet little is known about circular migration numbers (GSO, 2001; Hardy, 1998). Much of this migration is driven by migrant networks which lower the costs and risks of migration endeavours (Winkels, 2004).

Risks and vulnerability in Vietnam

In the past two decades, Vietnam has experienced considerable development gains reflected in a decrease of households living in poverty and rising gross national products, even though this was accompanied by a rise of income inequality. Poverty is generally concentrated in rural areas accounting for around 90 percent of Vietnam's poor (World Bank, 1999). Although 75 percent of all households gain their living primarily through farming, in this research I emphasise the complexity of income generation and livelihood security for the rural poor. Many rural households in the Red River Delta seek to gain a living and manage livelihood vulnerability through migration to both urban and rural areas. Migration is used to enhance individual and household assets, diversify household activities to avoid dependency on limited local income sources, or as a risk coping mechanism when alternative sources of livelihood are inaccessible. Thus households use migration as a way to both enhance household capability and to manage livelihood risks.

[3] The administrative boundaries of the Central Highland region include the four provinces of Kon Tum, Gia Lai, Lam Dong, and Dak Lak and CTNP is located at the southern most perimeter of Lam Dong Province. Fieldwork was conducted during a time of major political upheaval in the Central Highlands prohibiting access to these four Provinces to most outsiders.

The sources of livelihood risks emerge as external shocks in the form of varying climatic conditions often expressed as floods or droughts in both lowland and highland Vietnam, commodity price fluctuations, poorly functioning input and output markets and changes in pricing policies. At the intra-household level, illness, death, or changing social relationships affect household capability and are risk factors. Most households in this case study tend to have a limited asset base and face a poorly functioning insurance and finance market. Households employ a variety of strategies to deal with vulnerability. Most of the help received in times of crisis is either from within the family or from the community. To buffer against shocks many diversify their activities by migrating and make use of common property resources such as grazing lands or collection of marine products. Informal insurance mechanisms, based on social relationships and networks, are important to manage these risks, although they may not always be available or very costly. The risks experienced by the respondents interviewed in both sending and receiving areas are summarised in Table 1.

Table 1. Sources of livelihood risks for households in the two case study regions during the 1990s

Red River Delta	Central Highlands
Environmental risk	
▪ Floods and storm events limit peoples ability to help each other ▪ Pests and animal diseases cause crops to fail and livestock to die	▪ Floods and droughts, covariate shocks limit people's ability to reciprocate ▪ Environmental degradation, loss of forest products and erosion of the soil ▪ Rain fed irrigation limits crop seasons
Financial and natural capital	
▪ Limited access to land for newly established households ▪ Many households incur debts to smooth consumption or to be able to migrate ▪ Insecure land tenure rights	▪ Access to good quality land is becoming more difficult, increasingly marginal areas are exploited. ▪ Land size and quality depends on financial capital of household. ▪ Limited access to public and private sources of loans in remote locations. ▪ Insecure tenure rights
Economic risk	
▪ Limited access to off-farm opportunities for the rapidly growing population ▪ Shrimpfarming industry has experienced a boom and bust cycle, intensive farming of shrimp has caused diseases and environmental impacts.	▪ Market failure of major cash crops (coffee and pepper) in 1999 caused prices to fall below investment costs. ▪ Access to markets is limited, farmers rely on traders to sell their cash crops.
Social risk/ Conflict	
▪ Economic and social exclusion due to landlessness ▪ Religious persecution	▪ Limited access to schools, health centres ▪ Limited community support within newly established frontier communities, lack of social cohesion lowers personal security, stricter loan requirements ▪ Disputes over land among highland population causes insecurity and disruption
Risks related to migration activities	
▪ Loss of labour power within household	▪ Restrictions on permanent residence permits limits access to social services, formal sector employment and secure housing tenure

Source: Migrant interviews in Giao Thuy and CTNP

Poverty and vulnerability in rural Vietnam is strongly associated with natural asset endowments and indeed the differences in household land tenure, agricultural inputs and outputs are high between households living in the North and those living in the southern parts of Vietnam. However, large land endowments do not necessarily mean households are well-off. For example, while compared to other regions in Vietnam, individuals in the Central Highlands have the largest average size of land with 1.5 hectare yet the Central Highlands still is one of the poorest regions

In the Central Highlands the agricultural economy is largely based on cash crops such as coffee, rubber, and pepper. Nearly 80 percent of individuals work on farms (Dollar and Glewwe, 1998) and the low population density means that average landholdings are relatively large. Perennial crops and vegetables are grown on the majority of the land because of the temperate climate, adequate rainfall, and a lack of irrigation. Despite this, poverty in the Central Highlands has been linked with the fact that this region is a frontier area used to absorb population surpluses from the North and the difficulties migrants experience in settling and establishing a viable livelihood with minimal government assistance (Wiens, 1998). Further, farmers in this region are highly dependent on export markets and a recent downturn in global coffee prices has impacted strongly on the local economy and livelihoods (CRP, 2000). A diversification into growing fruit and mulberry for the production of silk can be observed in recent years.

The combination of policy changes (see Box 1), high commodity prices, availability of 'barren' land (as the government prefers to call unexploited and often forested areas), and the cumulative effects of migrant networks resulted in exponential economic and population growth in the highlands (Evans, 1992). As a result, of suitable climate and soils for growing export commodities such as coffee, rubber, pepper, and cashew nut, the Central Highlands became a new productive space for the global market (B-H Tan, 2000). Yet, the coffee market offers both opportunities and risks to migrant coffee farmers and these are explored next.

Box 1. Key structural changes since economic reforms and their impacts on population mobility (Dollar, Glewwe and Litvack, 1998)

- ✓ Dismantling the collective system and returning agriculture to family farming on the basis of long term leases. The promulgation of new land laws in 1993 enables rural people to transfer and acquire land use rights, serving as an incentive to move where land is more readily available and affordable.
- ✓ Abandoning administered pricing and a devaluation of the exchange rate exposed the farm sector to levels and fluctuations in international prices and resulted in a response of rural surplus labour to market opportunities outside home villages.
- ✓ The abolition of the rationing went hand in hand with the erosion of the household registration system (*ho khau*). The institutional linkage between residence status and provisions of jobs and daily necessities was replaced by market mechanisms thus weakening state control over people's movements.
- ✓ Since 1990 there are no subsidies for food supplies and the state's influence on the marketing system for rice, fertiliser, and most cash crops diminished (Wiens, 1998). Credit sources for the private sector are largely from personal resources and the informal market.
- ✓ Giving formal recognition, legal status, and encouragement to the private sector. Making possible the creation of new opportunities within the informal sector especially in the transportation and communication sectors thus absorbing and facilitating migrant workers.

The risks associated with migration for coffee farming

The research showed that migration for coffee farming is undertaken by households with very different capabilities and for very different reasons. While some households use migration to cope with shocks, others use it to enhance their assets through income diversification and thus improve their possibilities to mitigate future shocks. In the absence of employment for the fast growing population in the Red River delta (Le Xuan Ba et al., 2001), many young migrants aim to establish their own household by investing into plantations in the South. Yet, the investment into different locations is not always free of risks as Table 1 indicates. The experience of a migrant coffee grower who, moving from Giao Thuy District to Dak Lak Province in 1998 to establish a coffee plantation, outlined in Box 2, raises a number of important issues. His comments encapsulate the opportunities and hopes, necessary investments in the form of various assets, risks and their management for those who have taken a chance in coffee farming.

Box 1. Coffee farming provides both livelihood opportunities and risks for migrants

Experience of a migrant coffee farmer	Emerging livelihood considerations
"I visited my uncle in Dak Lak. The farms there are very large while in the North each person only has 1.5 sao [$500m^2$] of land. In the North, we harvest 100kg of rice each season/sao, while they sell 17mil vnd/1ton of coffee in the South. I saw the work is easy, so I decided to work for other people to get money and buy land."	Economic opportunities and social contacts in the destination act as motivation factors for potential migrants who use wage labouring on existing farms to save money to buy their own farm.
"I borrowed money to buy land. Normally, we will have to pay interest every month even if we haven't harvested yet. Now, we have 1000 coffee trees and 80 durian trees on 1.3ha of land."	A range of assets are necessary for migration and agricultural investments. Financial capital and labour power are crucial to gain access to land and other input materials.
"We haven't earned much money from our plantation, because the price of coffee is low. But in the next two years, we will earn at least 30m vnd/year, if the price of coffee will be 15000-20000vnd/kg. So, our profit will be 15m VND. If it will be 10,000 vnd/ kg we will also have some profit."	International markets are unpredictable and price fluctuations are felt by the growers exerting considerable stress on migrant livelihoods.
"There are many migrants in Dak Lak. The provincial authorities are planning to invest in building a small factory for every three households in order to dry coffee. Households who have economic difficulties are part of the scheme. So the quality of coffee will improve. Before, we gathered some tons, but we couldn't dry it when it rained, so the quality of coffee in Vietnam is worse than coffee produced in Brazil. That's why the price for our coffee is lower."	Continued in-migration puts pressures on highland resources. The lack of processing firms results in poor quality coffee beans, thus the industry requires better management and further investments in the long-term.

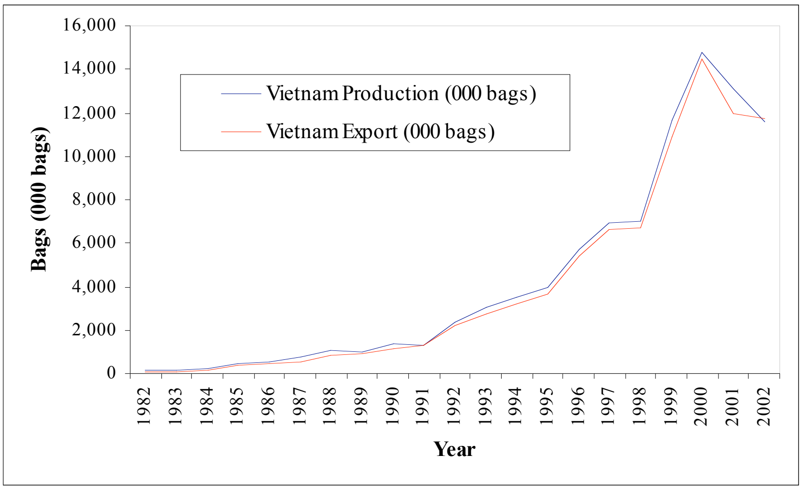
Source: Migrant who coped with natural disaster by migrating, Interview in Giao Thuy, 07/02/01, I13.txt

The experience of a migrant coffee farmer in Box 1. illustrates that migration and coffee farming interact in various ways, shaping the livelihood context for migrants in the destination. While coffee farming provides many opportunities to diversify existing livelihoods, there are also a number of risks associated with migration for coffee farming and these occur at different levels. Global market fluctuations affect the prices coffee farmers are paid, regional market integration and industrial development limit production and quality and also affect prices, and at the local level environmental degradation and social conflict can undermine long-term livelihood security for both local inhabitants and migrants. One of the drivers for most of these risk sources is rapid population growth and expansion of plantations fuelled by migrant farmers. The next section therefore goes on to discuss the way coffee farming developed in the highlands, its impacts, and the risks that emerge for migrant coffee farmers.

The risks associated with producing a global commodity

Until the mid 1980s, coffee production in Vietnam remained moderate. The combination of economic reforms brought about through *doi moi* and both organised and free migration to the Central Highlands resulted in a considerable rise in coffee production. While between 1990 and 1999, Vietnam's agricultural sector experienced an average annual production yield growth of 4.5 percent[4], coffee and other industrially farmed perennial crops (rubber, tea, cashew nuts) and annual crops (sugarcane, groundnuts) experienced annual production growth rates of up to ten percent (ICARD, 2003). Figure 2.presents Vietnam's total coffee production and export since 1982. The sharp rise in coffee bean production from the early 1990s was largely fuelled by migrants turning to coffee farming in the Central Highlands.

Figure 2. Vietnam's coffee production[5] and export between 1982-2002



Source: ICO (2003c) Note: 1 bag equals 60kg of coffee

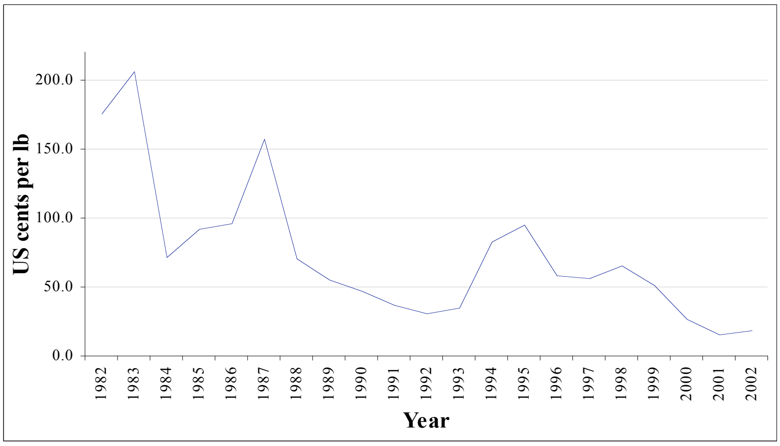
The Robusta coffee beans grown in Vietnam have limited price differentiation potential to increase prices (de Fontenay and Leung, 2001) and although consumption is rising, world coffee prices have experienced a long-term decline over the past two decades (ICO, 2003c). The combined pressures of the relatively slow growth rate of coffee trees, low barriers to entry, and the entrance of new producers such as Vietnam have resulted in a fall of real coffee prices to a level in 2000 that was about half that of the mid 1960s. This recent collapse of world market prices for coffee has been partly attributed to the rapid and uncontrolled growth of Vietnam's coffee industry and is of particular importance for small growers (ICO, 2003a; ICO, 2003b). Figure 3 shows the steady decline of the price of coffee paid to growers in Vietnam, and a similar trend is observed worldwide (ICO, 2003c). In 1999, world coffee prices dropped considerably and farmers responded by diversifying into other crops, thus

[4] Rice cultivation is dominant as it occupies more than half of all agricultural land (nearly 9 million hectares). From an overall production of 31 million tons, Vietnam exports 4.5 million tons per year and had become, in the late 1990s, the second largest exporter of rice in the world.

[5] 'Production': estimates are provided by members of the International Coffee Organization (ICO) for the current crop year (and revised on a quarterly basis). After the end of the crop year, estimates are replaced by derived production. In the absence of estimates provided by ICO members alternative sources are used (ICO, 2003b).

explaining the sharp drop in both production and export of coffee beans (Fitter and Kaplinsky, 2001).

Figure 3. Average price paid to Vietnamese growers in US cents per lb of Robusta beans 1982-2002



Source: ICO (2003c)

Coffee production is subject to large supply shocks because coffee trees take about three to five years before they become productive. This results in highly volatile world coffee prices where cycles of boom and bust may last over five years or longer. Small coffee growers who specialise into coffee, relying on it for their livelihoods instead of a more diversified production base made up of the earnings from wages, husbandry and other crops, are far more vulnerable according to the International Coffee Organisation (ICO, 2003c). As a result of the international coffee crisis, coffee farms around the world are abandoned and farmers are becoming indebted making them vulnerable to poverty, and resorting to out-migration from these areas (ICO, 2003a).

In Vietnam these global factors are exacerbated because there is no formal marketing board for coffee in Vietnam. Growers themselves have therefore no direct information about the value of their crop and hence very little influence on the prices that are paid. Migrant coffee farmers sell their crop to 'assemblers' or buyers who, until 1998 at least, were licensed by state-owned processors and exporters. Limited information about the extent to which the growers bear the costs of export price fluctuations is available, but a number of factors indicate that most of the fluctuations in world coffee prices are borne by the growers themselves (CRP, 2000; de Fontenay and Leung, 2001). The Central Highland province of Dak Lak provides an illustrative example. Here 95 percent of all agricultural output are coffee beans and this specialisation means that upstream and downstream linkages are limited to coffee production in the region and no other sectors are readily able to replace coffee as an export crop (CRP, 2000). This overspecialisation at the regional scale leads to a 'slump' entitlement failure (Sen, 1990), as the exchange value of coffee sharply falls relative to the price of food and other basic needs. The drop in world coffee prices therefore resounds in a region which has acted as a release valve for rural migrants. According to Douglass, DiGregorio and Pichaya (2002), this is leading to surplus agricultural labour likely to migrate to other regions, especially Ho Chi Minh City and Hanoi.

Migrant vulnerability is also impacted on by environmental and social uncertainty in the destination that is largely brought on by migrant activities. I now explore how rapid chain migration and other factors contribute to rapid degradation of natural resources and social tensions in the Central Highlands.

Impacts of migration and coffee farming on natural and social environments and associated risks for migrants

The Central Highland region has seen a steady decline in forest resources over the past fifty years. Between 1943 and 1995 the area covered by forest declined from 93% to 57% (Sikor, 1995). The area planted with coffee trees grew by fifteen percent per year since 1990 to a total of nearly 400 thousand hectares in 1999 (ICARD, 2003). However, the complex cause-effect relationship of land degradation and deforestation in the uplands is not easily unravelled. Population growth relative to land is often the direct source of many environmental problems, but there are also many underlying factors, trends and policies that affect the dependence on, and exploitation of, natural resources. Government policies in many developing countries provide incentives for both expansion and intensification in marginal agricultural areas. Coxhead et al. (2002) provide an example in the Philippines where economic and development policies promote agricultural expansion and intensified land use which often lack mechanisms for penalising actions that result in soil degradation and deforestation (Coxhead et al., 2002). Vietnam is another example where agricultural expansion into the uplands remains largely unchecked coupled with national and regional policy settings which encourage it (De Koninck, 1996).

Two reasons are commonly put forward to explain deforestation in Vietnam's highlands; (1) shifting cultivation practices by ethnic minority groups, and (2) population growth, in particular through in-migration from other regions (Vo Tri Chung et al., 1998; Zingerli, 2003). Yet, often a complex combination of factors is responsible for forest decline: population pressure, reduced fallow periods, privatisation of forest State enterprises (providing a stimulus for commercial logging), road building, increased market integration (with market prices often favouring particular cash crops) lack of technical assistance and credit sources and hydroelectric developments (Pettenella, 2001). Thus, the role of national and local government in the unfolding environmental degradation of Vietnam's highlands are highlighted as well as unclear definitions of property rights on forest lands exacerbating the unchecked use of forest land for agricultural and logging activities (Pettenella, 2001).

Rapid in-migration as facilitated by migrant networks which lower the costs of travelling and provide access to resources also affects the social context in the Central Highlands. Although ethnic minorities capitalise on the sale of land, the process of expanding industrial agriculture by lowland *Kinh*, does leave them increasingly marginalised and frustrated. Zingerli (2003) discusses in detail the factors that led to the marginalisation of Vietnam's ethnic minorities. In summary, these have to do with the independence of the Democratic Republic of Vietnam when the ethnic minorities became a minority population within the newly created political entity. Thus ethnic minorities came under social and economic control dominated by the *Kinh* ethnic majority directed from the lowland centres of political and economic power. In addition, the natural resource endowment of the mountain periphery was heavily mined by state owned forest and mining enterprises and to a lesser extent by agricultural cooperatives. As a result of competition for resources and cultural differences, indigenous ethnic minorities have moved into more marginal areas, which are characterised by increased risks to climatic variations and poorer soils:

> … by forcing tribal horticulturalists (whose way of life was neither unstable nor nomadic) to practice intensive fixed field agriculture in the valleys, and by trucking lowland Vietnamese into the mountains, the government

> experts had created maximum disjuncture between people's culture, their production techniques, and their environment. Traditional local cultures became a menace instead of a valuable resource when applied to unaccustomed task in unfamiliar environments. Environmental degradation, low productivity, and social stress have been inevitable. (Jamieson, 1993:365-366)

Demonstrations in 2001 held by ethnic minority groups in the Central Highlands show that the level of discontent of ethnic minority communities, as a result of state policies and favouring of lowland migrants in resource allocation, had become unbearable (McElwee, 2001; Asian Development Bank, 2002; Human Rights Watch, 2002). As a result of these tensions migrant coffee farmers are more likely to experience decreasing personal safety and lack of social cohesion (Winkels, 2004).

Authorities also play a role in the distribution and conservation of land in the Central Highlands. Since the 1980s for example, State Forest Enterprises held over 4 million hectares of natural forest (out of a total of 19 million hectares legally classified forest land throughout Vietnam) and exploited it for timber production, despite the Government also recognising the widespread decline of upland ecosystems. There is a rift between government policies and local implementation, where policy targets set at the national level are not implemented by authorities at the local level for a number of reasons discussed in detail by Hardy (1998). A survey undertaken in 1996 by the Department for Fixed Cultivation, Permanent Settlement and New Economic Zones, shows that 21 percent of free migrants had not registered with the local authorities and those who had registered often did not have sufficient papers (WWF, 1998:40). Cat Tien National Park and its surrounding communes provide a good example of national targets to curb immigration into the Central Highlands and protect the National Park from encroachment. Commune authorities are overwhelmed by migrants who arrive and stay with relatives or set up a simple shack in the middle of the forest. The means to evict them are limited and authorities see little purpose in doing so as the migrants do not have the means to go back home.

Box 3. Summary of the risks encountered by migrant coffee farmers

(1) Migrants involved in cash crop farming are directly affected by global market forces due to:

- the tendency to specialise into one cash crop as Government quotas encourage farmers to specialise into single crops which makes farmers particularly vulnerable to lose all their investments as a result of market failures; and
- the fact that all migrants are potentially more vulnerable to economic shocks because they already are indebted.

(2) Due to remoteness and the lack of marketing boards, migrant coffee farmers –

- lack adequate information about markets and prices;
- have very little influence on prices as they are dependent on traders who have better information and can transfer any price fluctuations onto the farmers; and
- can only access limited facilities to process coffee which results in lower quality and prices for coffee.

(3) Continued in-migration to the Central Highlands affects the distribution of land. Land speculation, inequality and social conflicts provide an expensive and insecure environment for migrants as it –

- increases the prices for land and may lead to greater risk of debt when a shock occurs;
- farming on poorer land in more marginal areas may bring lower returns to investment due to poor soil quality and lack of irrigation and may make farms more exposed to local natural variations; and
- potential conflict and lack of integration with other inhabitants can increase personal risks and inhibits the access to resources because of limited weak ties in the community.

The discussion above suggests that rapid migration to Central Highlands for coffee farming and other cash crops has changed the livelihood context for both local inhabitants and any migrants who follow. Associated with this change are the risks encountered by migrant coffee farmers. Box 3 provides a summary of these risks. They are primarily related to market volatility of major commodities, remoteness and the lack of marketing boards regulating local coffee trade, and the negative effects of migration and coffee farming itself on local natural and social environments. Below I briefly explore the various ways in which migrants respond to these challenges.

How do migrants manage the risks of coffee farming?

Fluctuation in coffee prices may put severe stress on households who already have a very narrow asset base as they have specialised in coffee production and rely on it for their income. While there are a number of macro-economic tools to manage the impacts of commodity price fluctuations (see de Fontenay and Leung, 2001 for a discussion) for small farmers the best way is to diversify their production of crops which provides a natural hedge against commodity price fluctuations. Some households plant subsistence crops to buffer against losses from cash crop farming as they realise their vulnerability with respect to fluctuating commodity markets:

> "…the problem with growing coffee is that the price is irregular, and when we are hungry, we can't eat coffee. We plant maize, cassava, and soybeans as a precaution when we don't harvest much coffee."
>
> Source: Two brothers, visiting Giao Thuy for Tet, moved to Dak Lak in 1980s, Interview Giao Thuy, 31/01/01 I1+2.txt

Once a household has specialised their production into cash crop farming, diversification becomes more difficult especially when other markets are not very well developed or suffering from a similar fate as coffee. During December 1999 through to February 2000, when coffee prices fell sharply, farmers were unwilling to sell their coffee. Instead, they sought loans from state banks using their land as a collateral to keep farming in the highlands despite the increasing social, economic and environmental pressures and poor quality of coffee beans. Many continue investing labour and money into their farms in the hope that prices will improve and processing facilities will help to increase the quality of their commodity. Where possible, small growers also invest into other cash crops such as pepper, or recently in the CTNP area into mulberry for the burgeoning silviculture industry. The reluctance of migrant farmers to leave their land is understandable, considering the investment of effort and capital into the farm. That is why the changing, and increasingly risky, nature of the upland agro-economy is met with a lot of flexibility, expressed in changes in migration behaviour. It is found that although many migrants eventually decide to buy a piece of land (1-2ha on average), most do not change their household registration to settle in the highlands permanently. And indeed, the majority of migrants state that they either want to return to their origin or want to decide to register at a later stage when livelihoods are stable as the efforts to diversify of this migrant family illustrates:

> "Now, we have land to grow coffee and pepper, but my family still has economic difficulties. Be and Muot helped us erect some posts of pepper. We joined an afforestation programme (phu xanh dat trong doi troc), where the cooperative helps us. At the same time, I work for others to get money in order to reinvest into my Central Highland field. I build furniture and

beams. My wife and children tend rice field in Giao Thuy District. I took one of my daughters to the South, she watches the house, weeds grass and breeds livestock such as chickens, ducks, and pigs. We also plant vegetables for our daily use. We haven't harvested any coffee so far, we keep on investing in coffee plantation. In future, I also plan to co-operate with the rubber enterprise. We will devote our labours to clear land and grow on enterprise land. When we harvest, we will get a share of the profits according to what we produced. At the moment, I plan to work there for 10 or 20 years, and I still keep our land in Giao Thuy for our children".

Source: Migrant with difficulties who wanted to grow perennial crops since 1992, Interview Giao Thuy, 06/02/01, I12.txt

This long-term circling between the destination and sending area, which may last years or even decades, fulfils two important functions; on the one hand it allows the household to maximise the return to its efforts to diversify its assets, especially the return to labour power and, on the other hand, it is an important risk management strategy in the face of changing upland economy. The way this type of migration is used to manage livelihood risks has been termed 'twin cultivation' in the context of southern Ethiopia (Grebe, 1994[6]; quoted in McDowell and de Haan, 1997). It allows households to increase the size of land and/or diversify agricultural activities over space while at the same time allowing households to increase their response mechanisms to the possibilities of either market failure or natural disaster occurring in either place more efficiently (Bigsten, 1996; Samuels, 2001).

Migrant networks, especially the ties between the migrant and his or her family are crucial for these 'stretched' livelihoods, yet they may also lead to households taking greater risks. Whereas labour migrants require very little initial capital investment, the extension of household assets over two productive units requires large capital investments over prolonged periods. As examples above show, the flow of resources between migrant and family members remaining in the home area occurs in both directions. Remittances are usually not very substantial and are often used by spouses and children for immediate consumption needs. The net flow of investment occurs towards the migrant where the non-migrating household members pool resources to support the farming of cash crops in the Central Highlands. Coffee plantations require high financial and labour investments for a number of years and without the support of other family members migrants would not be able to engage in upland farming.

Those household members who remain in the origin, either the spouse, father or a sibling, often join the migrant during times of high labour requirements (usually during periods of soil preparation and harvesting). Similarly, financial capital flows from the origin household to the migrant for a good number of years. Parents and spouses of migrants take out loans using their land and house in the Red River delta as collateral in the hope that successful highland farming will benefit all members of the household both directly and indirectly.

The involvement of all household members can however also have detrimental effects on household vulnerability. Any loss of investment by the migrant may have ripple effects across the network linkages, usually involving family members at home. The financial support through family members is often a necessity, as migrants who do not register in the destination have very little access to loans from state banks and private loans tend to have prohibitive interest rates. The loss of any investment put into migrant farms may therefore not only leave the migrant in dire straits, but also lower the capability of the remaining family to respond to risks.

[6] A. Grebe (1994) 'Village study: Adado' unpublished report, Addis Ababa University.

One pertinent example for this is the migration history of Mr Tam's household. Mr Tam is 61 years old and has three children. He has two sons who work in Binh Phuoc province as migrant farmers, and one daughter who lives with an aunt in Ho Chi Minh City in order to work and get treated for a chronic disease. The circumstances of his daughters disease made this household particularly vulnerable to losses of welfare as they used most of their savings to pay for previous medical treatments. In 1997, one of Mr Tam's sons purchased half a hectare of land in the South to plant coffee and pepper. In order to be able to afford the investments for his plantation, Mr Tam took out considerable loans for his son. However, as perennial crops take a number of years to mature and because of the subsequent market failure Mr Tam is not at all sure whether his son will be able to pay him back. In the meantime he has had to sell his own assets to pay back the debt:

> "Last year, I borrowed some million VND from the bank and from a private lender. I joined the farmer association, so I could borrow money. The chairman of the farmer association acted as a guarantor for me to borrow money. I borrowed three million vnd with 1% interest. I paid back one million, now I owe two million. My son send me some money to pay the debt. And I had to sell a pig to pay one million VND. I am going to pay 1 million by next October. I haven't had any more money to pay. I don't know if he will send me the rest. He hasn't harvested yet, his first crop will be ready next March. He hasn't send me any money he just visited us one time since he went to the South."
>
> Source: Migrant father of two sons who moved to Binh Phuoc from Giao Thuy, Interview in Giao Thuy, 17/02/01, MHH.15.txt

Mr. Tam and his wife remain in Giao Thuy and look after their children's land. Yet, they find it difficult to plant these fields as their labour power is reduced to himself and his wife. They can only partially draw on community resources, as they are unable to repay any obligations if they exchange labour with others in the community:

> "After he went to the South, my wife plants rice on his field. During the harvest season I have to hire labourers. I exchange work with others, but it is still not enough labour for all the land. Because in the harvesting season, others have to harvest in their field, so they don't have time to work with us. In my family, there are only two labourers. We can't plant for others because my family lacks labourers. In harvesting season (mua thu hoach), they will share work with us, but in planting season they won't because we can't plant rice for them."
>
> Source: Migrant father of two sons who moved to Binh Phuoc from Giao Thuy, Interview in Giao Thuy, 17/02/01, MHH.15.txt

Thus, Mr Tam's vulnerability is further increased by his responsibilities to look after his son's land. Not only are he and his wife unable to plant the additional land on their own, they are also unable to build up their social capital within the community. Because they have more land to farm than they are able to, they cannot exchange labour with others. Thus, they reduce their own stock of obligations which they can call upon when they require the help of their neighbours. So, while providing an insurance for his son, keeping land for his son becomes a drain on Mr. Tam's resources. With the uncertainty related to export markets in the Central Highlands it is unclear whether Mr Tam's children will profit from their investments. What is likely, however, is that Mr Tam's livelihood has become more vulnerable with the migration of his children.

The case of Mr Tam illustrates that any loss of investment by the migrant coffee farmer due to market failures or other shocks may have ripple effects across the livelihoods of those who support the migrant. As the pooling of investments is often necessary for migrants to be able to farm cash crops in the highlands, this may also mean that if the endeavour is unsuccessful, the entire household may be less capable of dealing with risky events in the future.

How many migrants respond to the failing coffee market with stage migration to other regions, especially to two major urban areas around Ho Chi Minh City and Hanoi, is not known. However, those migrants who stay report that many neighbours have left in the wake of the price collapse. If this trend continues it will accentuate the problems of rapid urbanisation already experienced in Vietnam (Douglass et al., 2002). Policy responses need to adequately reflect the extend of this onward movement and the alternatives available to migrant coffee farmers whose households often rely on remittances for survival.

Conclusions

This paper allows a glimpse of the complexity of migration processes in the light of global economic changes. On the one hand, important feedbacks between Vietnam's economic liberalisation and economic integration into regional and world market systems have led to sustained economic growth through export agriculture. Meanwhile, on the other hand, government resettlement policies and an emphasis on coffee fuelled the rapid growth of coffee industry and in the absence of adequate market regulation this has contributed to the collapse of the world coffee market (CRP, 2000). Thus, with the rising demand for income opportunities in the lowlands, migration to the highlands has outgrown the capacity of both natural and social environments and markets to accommodate large numbers of coffee farming migrants. Migrants respond to these opportunities and risks in various ways. Yet, it is important to consider the effectiveness of some risk management strategies employed by some migrant an their families. Migrant networks, for example, provide an adequate safety net, but only as long as they are not impacted on by the losses incurred by the migrant.

Policies laying out plans up until 2010 see the Central Highlands as an uninhabited 'sink' for the rural poor, as a site for economic development, as well as a source of biological diversity (Zingerli, 2003). These somewhat contradictory aims of upland development pursued by Vietnam's central government are based on several assumptions; firstly that the availability of 'barren' land allows migrants to farm productively; secondly, that the channelling of efforts into cash crop industries will increase GDP in the region, that this will therefore improve the socio-economic welfare of the upland population; and thirdly that it will be possible at the same time to protect forests and biodiversity. With respect to the rapidly changing economic and social environment in Vietnam Do Van Hoa (2001:2), however, concedes: "current migration policies have not been amended quickly enough to be relevant to new situations and new tasks". In order to address both positive and negative aspects of migration on upland development in Vietnam, policies need to focus on securing livelihoods through improving living standards in rural areas, improving smallholder support through marketing boards, and increase their alternative sources of income in the destination. As market failures are inevitable, destination provinces should include migrants in local poverty reduction programmes and facilitate their livelihoods rather than barring access to existing social welfare services.

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