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Dang Dinh Trung,
M.A Research Student,
Southeast Asian Studies Programme,
National University of Singapore
10 Kent Ridge Crescent,
Singapore 119260
artp9440@nus.edu.sg
(I am a first-time presenter)

Coffee and subsistence production: complementarity or competition? A case study from an Ede (Rhade) village in Vietnam.

Abstract: In the Vietnamese Central Highlands, the Ede economy, previously based on subsistence production, has increasingly shifted to coffee. Over the past two decades, coffee has come to dominate Ede agriculture. Meanwhile, land shortages due to various factors plus exhaustion of the forest from extensive internal migration have caused the level of Ede subsistence to deteriorate. Recently a sharp drop in coffee prices has drastically worsened their livelihood, especially for the poor. The paper will examine the Ede adoption of coffee production and the interaction between subsistence and coffee production on a daily basis.

Key words: *subsistence production, coffee production, internal migration.*

Introduction

The Ede are one of the indigenous groups in the Vietnamese Central Highlands, whose language belongs to the Malayo-Polynesian families. With a population of 235,000 (in 1995), the Ede live mainly in Dak Lak's province. The traditional Ede economy was based largely on subsistence production by rotational shifting cultivation, supplemented by hunting, fishing and gathering. In short, traditional Ede society enjoyed a considerable degree of autonomy and autarky. The situation changed as the region was increasingly opened up to the outside world after reunification (1975). In particular, since *Doi Moi* (renovation since 1986), with market penetration and high demographic pressure, the Ede economy has had to adapt to this new situation. At present, the Ede economy has shifted from subsistence to cash crop production, especially coffee. Coffee production was adopted not only in the villages surrounding the provincial capitals but also in the remote villages.

Unlike traditional crops, coffee is an exotic crop requiring different techniques and intensive investment of labour and capital. Coffee also can lead to competition with subsistence production for land and labour. Meanwhile, land shortages due to various factors, and exhaustion of the forest from extensive internal migration had caused Ede subsistence to deteriorate. Recently world coffee prices dropped sharply, which badly affected coffee planters' livelihoods, specially the Ede in the region. This paper will examine how and why the Ede in the remote village have adopted coffee production and how they coped with subsistence and coffee production in such situations.

Buon Brieng A: a case study

Located in Ea Nam commune of Eahleo district, 80 km from the Dak Lak provincial capital of Buon Ma Thuot, Buon Brieng A is considered remote *vis-à-vis* the economic and political centres of the region. In 2000 Buon Brieng A consisted of 92 Ede households with 580 people. Most of the houses were made of wood, standing on piles following the traditional Ede style. The transportation system remained poor but had been improved, connecting the village to regional transport networks. The village had

just been electrified as I did my final fieldwork (from January to April, 2001). Although the village still retained many characteristics of traditional society such as village boundaries, house styles, women's traditional address, language and rituals, the environment and social structure of the village had changed greatly. The village was now covered by coffee plants and migrant houses (the Kinh or ethnic Vietnamese and Muong minority)¹ instead of natural forest. Most of Ede households adopted coffee production, which accounted for large proportion of their activities and income. Meanwhile subsistence production remained an integral part of the farming system, especially for the poor.

Socio-economic overview of Central Highlands and Buon Brieng A since reunification

Economic and social changes in the region

The Central Highlands (or Tay Nguyen) in Vietnam are home to 15 indigenous groups whose languages belong to one of two families: Malayo-Polynesian and Mon-Khmer. Living in the remote and relatively isolated areas, highlanders were less influenced by the two great traditions, Chinese and Indian, which moulded the societies of Vietnamese and Khmer. Despite variations in languages and landscapes, before 1975 highlanders shared many common characteristics in terms of culture and economic patterns. The highlanders' traditional economy was based on largely swidden rice production by practicing a form of rotational shifting cultivation and supplemented by hunting, fishing and gathering. Highlander society enjoyed a considerable degree of autonomy and autarky. However, the situation changed when the region became fully integrated into the socio-economic and political mainstream of the nation after reunification (1975).

With a total area of 5.6 million ha covered almost completely by natural forest (3.3 million ha in 1975) and a wide area of fertile basaltic soil, the Central Highlands region has been long considered by the government to have great potential for agriculture and forestry. Moreover, the region has been viewed as an under-populated and unexploited area; and its indigenous inhabitants engaged in shifting cultivation by

¹ The Kinh are the predominantly lowland ethnic Vietnamese majority. The Muong are a northern minority whose language is close to Vietnamese.

slash-and-burn methods, considered “backward” and “destructive” to the forest. The Central Highlands have been seen as an essential strategic area for relocating people from the lowlands to exploit its economic potential, “advance” the indigenous people, and ensure national and regional security as well.

Since reunification, the Vietnamese government has implemented three main policies in the region: (1) establishing state farms and forestry enterprises, (2) building up “New Economic Zones”, and (3) implementing of the “Fixed Cultivation and Sedentarization Program” (FCSP). To fulfil the two first policies, large-scale organized migration from the lowlands was organized. Hundreds of state farms, forestry enterprises, and cooperatives were established, controlling most land and forests in the region. Meanwhile, FCSP encouraged indigenous people to join these structures and give up “destructive” shifting cultivation. Under these policies, the Central Highlands and the highlanders underwent great socio-economic changes. As a result, the region was transformed from a relatively untouched and highly insecure area into “agricultural frontiers” which later attracted large number of spontaneous migrants from all parts of the country.

With *Doi Moi* (renovation) since 1986, the transition of Vietnam’s economy from “plan to market” has intensified existing changes in the region. The Central Highlands, possessing a large area of basaltic soil suitable for cash crops, have emerged as the “new economy” of oriented-export cash crops, especially coffee and pepper, which largely contributed to making Vietnam the second largest coffee exporter in 2000. The attraction of coffee production when its prices rose high in the middle of 1990s, triggered a massive uncontrolled wave of spontaneous coffee-planting migrants from all parts of the country. The region has experienced rapid demographic growth and rapid changes in the socio-economic and physical environments.

From a population of about 1 million in 1975, of which half were indigenous people (i.e., ethnic minorities), the population of the Central Highlands reached 3.6 million in 1998 (three times the figure in 1975), of which the original inhabitants accounted for less than 35% of the total (Bui Minh Dao *et al*, 2000: 10). This figure reflects not only an inversion of the highlanders’ proportion of total population but also the socio-

economic impact of demographic pressure, especially on the land and forest on which the highlanders have relied for centuries.

On the positive side (from the government's perspective) migrants to the Central Highlands have played an important role in utilizing its economic potential, contributing to the expansion of production of food and export-oriented agro-commodities such as coffee, rubber, pepper, and cashews (see table below). Migrants have also played an important role in forming centres of high population concentration. These centres are key points in the formation of networks of market, transport and information with remote villages in the periphery, which in turn have stimulated the emergence of an economy of export-oriented agro-commodity agriculture across the region.

Table 1: Area And Yield Of Cash Crops From 1995 To 2000 (Ha & Tonnes) in Dak Lak province, Central Highlands

Year	Coffee		Rubber		Pepper		Cashews	
	(ha)	(tonnes)	(ha)	(tonnes)	(ha)	(tonnes)	(ha)	(tonnes)
1995	131,120	154,600	19,150	4,570	1,007	1,009	9,305	1,882
1996	153,050	159,633	21,120	5,555	1,050	1,265	9,580	2,000
1997	165,000	212,114	25,660	7,112	1,410	1,537	7,270	2,534
1998	169,620	246,956	26,000	7,887	1,797	2,459	6,036	3,906
1999	250,830	262,365	26,198	9,547	5,050	2,690	6,751	3,015
2000	264,074	360,551	25,703	11,466	4,885	4,938	6,355	2,456
Annual average growth (%)	15.0	19.1	6.1	20.2	37.1	37.4	-7.3	5.5

Source: *VQH&TKNNMT (the Institute for Agricultural Planning and Design for Central Vietnam), February 2001*

On the negative side, large-scale migration to the Central Highlands brought about certain social and environmental consequences. The most serious problem the Central Highlands has faced was a rapid rate of deforestation. In 1960s, roughly 90% of the Central Highlands was covered in forest, but this figure had decreased to 57% by 1995 (Kempf et al., 1998: 156) and to less than 50% by 1998 (Bui Minh Dao et al, 2000).

The main cause of deforestation was agricultural expansion; forest was cut down, giving way to commercial crops, especially coffee. Deforestation led to environmental degradation in the region. Apart from reduction in bio-diversity, the loss of forest resulted in a decrease in the capacity of water catchments. According to De Koninck (2000) and Bui Minh Dao (2000), unusual changes in the climate of the Central Highlands and the floods which devastated the lowland areas of Central Vietnam in late 1999 were closely linked to a decline in forest cover in the highlands. In addition, high population pressure from migrants was difficult for local government to manage, especially regarding disputes over land and resources between migrants and indigenous people. Most of them did not know or ignored the highlander's traditional system of land tenure by occupying the fallow land or buying it at cheap prices.

Highlanders now were no longer isolated from the outside world. Increased interaction with outsiders, government policies and especially market penetration brought changes in their society, particularly their economy.

Socio-economic changes in Buon Brieng A: from a “closed” to an “open” village

During the Vietnam War, Buon Brieng A moved from its original location to the centre of Eahleo district under the strategic hamlet policy of the South Vietnamese government. After reunification in 1975, Buon Brieng A came under new administration and underwent significant socio-economic changes. Soon after reunification, the village was once again reallocated and encouraged to take part in a large-scale production unit (*tap doan san xuat*), a kind of cooperative working collectively under state subsidies. When the cooperative was disbanded in 1984, the village returned to their original site from where they had previously moved to the district capital. And they were again encouraged to join the Thuan Man forestry enterprise in 1986 in order to prevent their shifting cultivation and “nomadic” life under the FCPS policy, where they planted, cared for or protected a given area of forest under Thuan Man's “subsidy”. Although land was concentrated in the hands of Thuan Man enterprise, the village had the right to cultivate on “given area”, considered as their ancestral land, for their own subsistence. Villagers also claimed that they fulfilled their daily needs from their subsistence rather than from Thuan Man

subsidies. During the period 1986-1989, Thuan Man tried to implement the FCPS policy by organising village labour and separating longhouses into “short houses” or nuclear-family houses, delivering seeds for planting cash crops like coffee, pepper and fruit trees, and also abandoning some village rituals considered “backward”.

However, in 1990 Thuan Man was subjected to restructuring in response to government decision No. 388/HDBT and dismissed the villagers from its employment. Although Thuan Man continued to implement its FCPS policy for the village, the villagers then regained autonomy in using their own factors of production and deciding their own economic activities. Since that time, the village has experienced great demographic and environmental change caused by migrants and market penetration by Kinh and Muong merchants coming to trade with the Ede. According to villagers, before 1990 a few Kinh came to trade with them, but did not stay. After 1990, especially from 1993 onward, there was an increase in the number of merchants and even trade agents trading with them; some of them stayed inside the village for trading, which opened up new opportunities for the Ede to buy outside goods and sell their produce. The villagers also experienced “coffee expansion” by a large number of migrants and state-own enterprises causing a loss of forest, other natural resources and land, which badly affected their subsistence production.

According to Eanam’s 1999 statistics, the commune now consisted of several ethnic groups and reached a population of 6,000 people; in which the Kinh and other groups, whose numbers had been insignificant in 1990, now made up 70% of the population. There are no quantitative figures to show how many hectares of forest had been lost and how many hectares of Ede land were occupied by spontaneous migrants. It was obvious that the Ede’s living area had shrunk considerably and there had been serious depletion of natural resources, which previously guaranteed their survival or minimum subsistence during the hard times.

Thus during the past decades, Buon Brieng A like other Ede communities, has undergone socio-economic and environmental changes due to external forces such as government policies, demographic pressure on land and natural resources caused by migrants and market penetration. The village went from being relatively isolated to being open economically and socially, which brought both opportunities and

challenges to villagers. Loss of land and forest challenged their subsistence production. At the same time, development of market networks offered new opportunities for them to trade with outsiders. All of these contributed to the shift of their economy from subsistence to commodity (coffee) production, as discussed below.

Shifting to coffee production

Coffee is an exotic crop that was not adopted in Buon Brieng A until 1982. The traditional Ede subsistence economy usually required crops to be edible rather than tradable, while coffee production is intended mainly for the market instead of local consumption. However, by 2000-2001 coffee represented a large proportion of their cultivation in terms of land, labour and income, which made for a major shift from a swidden rice-based cultivation system and to one based on coffee production. The process of adopting coffee production in Buon Brieng A can be seen as through three stages: from initiative to expansion to commitment.

The pioneers

Mr. Ma Duyen began to plant coffee trees in 1982 when the village still worked in cooperatives. He was considered the first person to plant coffee in Buon Brieng A.

He recalled:

I went to Thon III and Buon Ho and saw that the Kinh people were planting coffee so I followed their example, although coffee prices were low at that time. I sold my Sinko watch for VND 6000 to buy 100 coffee seedlings in 1982. I planted them in the field close to the bank of a stream because at that time we did not have a water pump. I dammed a stream to bring water to the coffee fields. It's funny - I did not know how to use fertilisers or even how to weed. One third of them died or did not bear fruit.

Thanks to the favour of nature, in 1985 I had my first harvest of 60 kg (of coffee beans) that I sold to buy a bicycle. The second harvest was used to buy a Sinko watch and a copper fan. The proceeds of the following harvests I used to buy gold to keep [as savings]. I planted hundreds more coffee trees in 1986. And when I worked for Thuan Man as a team leader, I mobilized villagers to plant 300 more coffee trees in 1987. In 1990, I received about 500 coffee trees from Thuan Man. Then I expanded my coffee fields further when coffee prices were high in 1993-1996. Now I have two and a half hectares of coffee trees, equivalent to 2500 coffee trees.

Field interview, 2001

Mr. Ma Di also started to plant coffee comparatively early; he told the following story:

I stated to plant coffee in 1984, but I did not know the technique well. When I saw some people in Buon Ho plant it, I followed their example. I thought that if they could plant coffee, so could I. At that time, I reclaimed 5 sao [0.5 hectare] of forest on the bank of a stream to plant 50 coffee trees on a trial basis. One tree was 0.5 meters away from another; according to the technique, they should be one meter. Also I dug holes as wide as children dig them to catch crickets. According to the technique, they must be 60-60-60 centimetres [width, length, and depth]. As result, some of them died, others did not bear fruit. Then, I went to visit some places to learn from the Kinh. I started to plant coffee again in 1987. And I planted coffee on a large scale from 1993-1996 when coffee prices were high. Now I have more than 2 hectares of coffee, excluding one hectare given to my daughters.

Field interview, 2001

Ma Liet, another pioneer, told his story:

When my village moved here in 1984, I separated from my parents-in-law. Then I started to plant coffee trees in 1985 one year after Ma Di did. Meanwhile, others continued to follow tradition, preferring rice cultivation and rituals. I often went out and learned a lot. I chose my coffee to be near the water source, so it was easy to water them. Then I sold my rice to buy fertilisers for coffee trees but not according to the technique. Some of them died, but others still were alive. When coffee prices were high, I invested in them again and added more fields to plant coffee. Now I have more than three hectares [more than 3000 trees]

(Field interview, 2001)

It is interesting that these “pioneers” adopted coffee trees in their farming system early on, even before Doi Moi (1986) and before the FCSP policy introduced coffee production to the village. The reason for adopting coffee was to “follow the Kinh example”. However, this implied an economic motive in seeking a way to improve their livelihood in new situation. It is necessary to explain why only these pioneers and not others adopted coffee. There were several reasons. Three of them were comparatively well educated and fluent in Vietnamese. They used to be cadres in state organizations so they had had more opportunities to interact with outsiders, and thus had the “power” to bypass the elders’ “resistance” to adopting coffee trees. According to Ma Duyen, when he began to plant coffee the elders and headman opposed him, asking people not to follow his example because they argued that coffee would not give them food to eat. In addition, all of them lived in separate or nuclear families, so they were more independent in economic decisions without interference from other

family members. Although at that time village land was still sufficient, interacting with outsiders helped these pioneers to be aware of the potential shortage of land. They also recognized that shifting cultivation was discouraged or banned by the government policies. All these factors led them to find a solution for their future by adopting coffee as the Kinh had done, although coffee prices still were low at that time.

These three stories also show that adopting coffee in Buon Brieng A was a process of “trial and error”. At first, these three “pioneers” did not have a clear idea of how to plant coffee. Unlike traditional crops that relied mainly on the favour of nature, coffee requires external inputs such as fertilisers, water supply and pesticides. In order to learn, they had to experience some failures. Although between 1986-1990 Thuan Man provided extension services and know-how for coffee production, these men attributed their experience in planting coffee to the process of “trial and error” and learning from the Kinh. Consequently, the success of these pioneers in their own coffee fields in turn made a good example for their neighbours to follow.

The followers: Coffee expansion after the “push” of price rises

When the pioneers began to plant coffee, coffee prices were still low. The profits from their coffee fields were still small, which did not strongly encourage others. Although at that time villagers were involved in trading with outsiders, there was low demand for outside goods and little need for cash. Ede villagers could trade in kind rather than using cash. Their own subsistence was almost completely sufficient for their daily food needs. As a result, many villagers did not pay much attention to coffee production, except those pioneers who made a “trial” in the hope of changing their future lives. However, the situation changed with the rise in coffee prices.

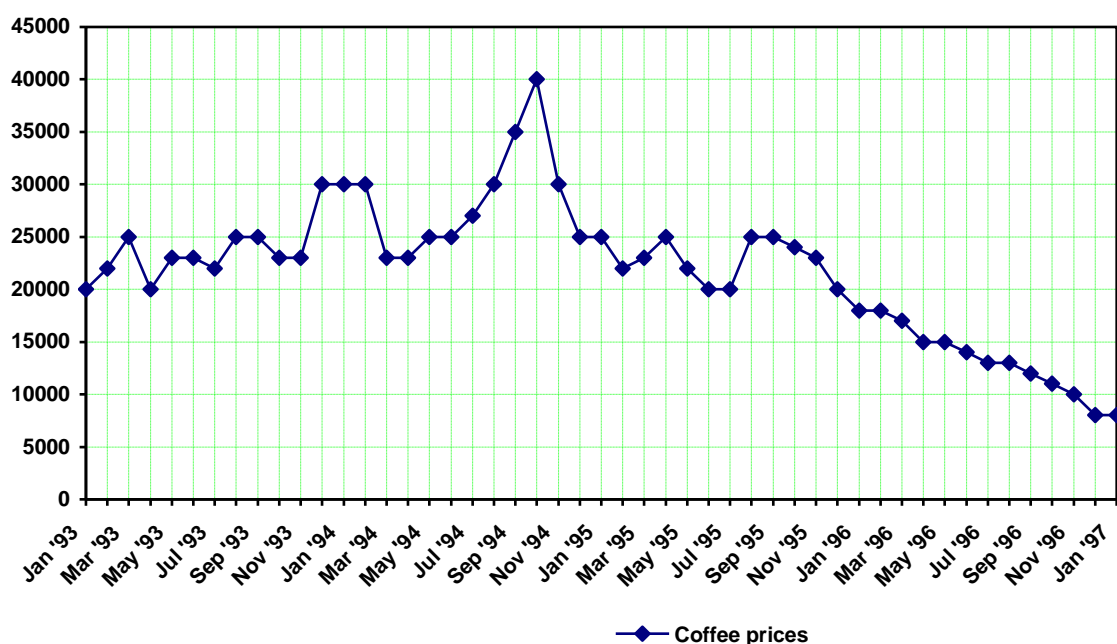
In 1993, coffee prices began to rise and reached their peak in 1994 (see map); some of pioneers who harvested coffee at that time made huge profits that strongly encouraged their neighbours to follow. Let us consider Ma Duyen’s story:

In 1994, when coffee prices were VND 30,000 for one kg of coffee beans, I sold my coffee and obtained 7.3 cay of gold [1 cay = 1 tail = 37.51 gram]. then I immediately bought a Dream motorbike for 6 cay in 1994. I was the first person to have a Dream motorbike in Buon Brieng A. I used the

remainder and the gold accumulated from later harvests to build this cement house in the same year. It cost me more than 3 cay. I am also the first person to build a Kinh-style house in my village.

(Field interview, 2001)

Chart 1: Price Of Coffee Beans (VND/Kg) (As Purchased From Farmers)



Source: GTZ project, Dak Lak Department of Agriculture and Rural Development, 2001.

Thus the rise in coffee prices brought Ma Duyen considerable wealth. Ma Di, Ma Liet and other pioneers also had the same results. They said that they bought many valuable things such as tractors, motorbikes and Sony televisions during 1993-1995. Ma Liet recalled that at that time he just carried two or three kg of coffee beans to market and could buy many things.

The quick wealth of these pioneers made villagers aware of the significance of coffee trees. Moreover, the rise in coffee prices triggered a large influx of free migrants and Kinh farmers, even officials, who came from outside to buy or occupy land for coffee planting. This made villagers strongly aware not only of coffee production but also of the market value of land. Villagers recalled that at that time many of them rushed to

plant coffee, trying to find good plots of land. Some gave up growing swidden rice and planted coffee on their rice fields. The rise in coffee drove the rise in land prices. Many sold land, both their fields and other land they just reclaimed or claimed, to the Kinh in order to buy tractors and other things.

It's worth noting that some elders who had previously been against coffee cultivation now changed their stance and began to adopt coffee in their own fields. Some villagers said that Ae Tue, who was now 90 years old, previously did not allow his children to plant coffee. But when coffee prices were so high, he himself began to do so. Another lady who was the oldest in the village, 98 years old, also had her own coffee field. The village head also began to plant coffee in 1995. By 2001 he had one hectare of coffee field as well.

According to Ea Nam's statistics (see table below), the number of households planting coffee rose greatly during 1993-1995, reaching 83 out of a total of 92 in 1995; thus only 9 households were not planting coffee. The average area of each household rose significantly from 1995-1999, indicating that the expansion of coffee during that time was due to largely an expansion in scale of each household rather an increase in the number of those planting coffee. According to statistics, two households did not plant coffee, but villagers claimed that every household did so; these two households abandoned coffee production because of a lack of capital and farming know-how, and then sold their coffee fields to others.

Table 2: Coffee Expansion In Buon Brieng A

Year	The number of households planting coffee (household)	The area of coffee fields (ha)	Average area per household (ha)
1990	12	4.9	0.41
1991	14	5.7	0.41
1992	16	6.45	0.40
1993	32	13.35	0.42
1994	73	32.35	0.44
1995	83	70.55	0.85
1999	90	119.1	1.32

Source: Ea Nam statistics 1999 and tax books for 1995

When asked why they planted coffee, villagers, especially the poor, always answered: “we saw people plant coffee and become rich, and so we followed them”. It was obvious that they decided to plant coffee because they hoped that it would change their lives as it had done for their neighbours and for the Kinh, who had become “rich” thanks to coffee production. As one of the pioneers said:

I planted coffee first; they saw me harvest the “money” from my coffee trees so they wanted the same things. And they all planted coffee, imitating me.

(Field interview, 2001)

Coffee beans are our cash: commitment to coffee production

The process of coffee adoption was closely associated with the market penetration of the village, which opened new opportunities for Ede villagers to purchase outside goods. As a result, the need for cash and the process of monetization in the village increased and villagers became more dependent on outside goods. Young people liked to wear Kinh clothing rather than traditional garments. They also needed shoes, watches, cosmetics and jewellery to integrate into the outside world. Villagers’ desire for factory-made goods such as radios, television sets, motorbikes, and tractors had increased. Moreover, education and health expenses and taxes played a certain role in heightening the need for cash.

The process of monetization took place not only in relations between villagers and outsiders but also in some aspects of intra-village social and economic relations. Villagers said that if they were invited to a wedding or birthday or new-house celebration, they had to bring money or presents with monetary value. If a girl married a boy, instead of giving buffalos, jars and gongs, her family had to pay cash averaging VND 15,000,000 (approximately US\$ 1,000) a wedding.

Coffee expansion was also closely associated with the depletion of natural resources and a shortage of forest and land for subsistence production. The traditional subsistence system increasingly deteriorated, failing to fulfil the villagers’ daily needs, which increased the need for cash to purchase outside food. Let us consider Ma Dar’s remark:

Now we need money for everything. We need money to buy necessities such as salt, fish sauce, table oil, rice and even vegetables. Formerly we just needed salt. Meat and vegetables were in the forest. If we wanted something outside, we used honey for exchange. Honey was our cash in the past. Now coffee beans are our cash. Having coffee means having money.

(Field interview, 2000)

Considered as “cash”, coffee had become important in defining social status or economic position among the Ede villagers. Coffee had now become an indicator of wealth. Traditionally, wealth was measured by the quantity of jars, gongs and cattle possessed. Now these things were not important. Villagers would laugh if they were called rich because of a large number of jars and gongs. The villagers’ perception of wealth changed. Wealth now was measured on the basis of possession of coffee fields, land, cement-houses, tractors and motorbikes, and coffee was considered as source of income. Some poor households often considered themselves poor because they had a few or no coffee fields. For example, asked why she did not have coffee fields, Mi Soat, from one of the poorest households, did not answer the question directly, but commented: “*If I had coffee fields, now I would be rich already*”.

Coffee fields became assets that parents needed to give their daughters when they married. Villagers said that if they did not have coffee fields, their daughters would face difficulties in finding husbands. That was why asking a boy to marry Mi Soat’s daughter made other villagers laugh because she had no coffee fields. Ma Loi, who started to plant coffee comparatively late, also asserted that he planted two hectares of coffee fields for the sake of his three daughters. If he did not have coffee to give them, nobody would dare to marry them.

New couples began to plant coffee for their future during their residence with the girl’s family.² They said that the amount land of land their parents gave them was not enough to earn a living if they used it for subsistence production. Meanwhile it was difficult, even impossible, to find new land. So coffee production was an alternative that could help them to earn a living.

² The Ede are matrilineal practice that require the girl’s family to offer dowry for the boy’s family

Although during my fieldwork coffee prices had dropped seriously, some villagers, especially the wealthier, still continued to plant coffee in the hope that coffee prices would rise in the future. Ma Khuyen, from a relatively wealthy household, asserted that he would expand his coffee fields:

I will plant more coffee because there is no alternative to coffee. Even if coffee prices continue to drop, I will still plant it because planting coffee is more profitable than rice. Planting coffee just costs money and labour to invest but we get much money over the long-term. Five hectares of swidden rice give us little due to soil exhaustion but with coffee we can get millions of dong. Moreover, I have to plant coffee to earn money to pay the debt I owe the agency [trade agency].

(Field interview, 2001)

Thus the need for cash to purchase outside goods and food that the subsistence system failed to produce in sufficient quantities had made villagers put more effort and commitment into coffee production. The extent of the shift is reflected in the way villagers were committed to planting coffee to fulfil not only economic but social objectives.

Subsistence versus coffee production

Traditionally, the Ede economy in Buon Brieng A was based on subsistence production that was geared mainly for home consumption. Their traditional subsistence system was characterised by swidden rice production, husbandry, hunting and gathering. Before 1990, villagers still enjoyed a sufficient level of subsistence. However, during coffee expansion, villagers experienced deterioration in their subsistence as discussed above. This section will focus on how villagers coped with allocating land and labour between coffee and subsistence production.

Land competition

According to villagers, when the pioneers adopted coffee, land was still sufficient to grow rice. Even in the early 1990s, villagers still kept a considerable area of land for their subsistence. However, when coffee prices rose, most villagers began to adopt coffee. The more land used for this purpose, the less went for subsistence production.

At the same time, external demand for land increased, which made land prices relatively high; a mass of Ede land was sold to or occupied by outsiders (the Kinh and Muong migrants) and even state coffee enterprises³. As a result, villagers experienced a shortage of land for maintaining sustainable rotational shifting cultivation. By 2001, the structure of land use in Buon Brieng A had changed considerably from one dominated by subsistence to one with a high proportion of coffee production (see table).

Table 3: Structure Of Land Use In 1994, 1999

Year	Total area of farming land		Structure of land use					
			Land area for swidden rice			Land area for coffee production		
	Total (ha)	Average land area per household (ha)	Total (ha)	Percent of the total (%)	Average (ha)	Total (ha)	Percent of the total (%)	Average (ha)
1994	349.1	3.8	316.7	90.7%	3.4	32.4	9.3%	0.3
1999	173.3	1.9	54.2	31.3%	0.6	119.1	68.7%	1.3

Source: Ea Nam statistics 1999 and tax books in 1994

Coffee was introduced into their farming system in 1982, but as late as 1994 the coffee area of Buon Brieng A was only 32.4 ha, an insignificant area compared to that reserved for swidden rice (316.7 hectares). It was surprising that the “official”⁴ area of swidden rice shrank so drastically over 5 years (1994-1999) due mainly to the sale and conversion of land for coffee production. As a result, the structure of land use was reversed; rice production, which previously dominated the Ede farming system, was now relegated to secondary status. The area of land for swidden shrank greatly in both

³ Villagers estimated that they had been forced to sell about 300 hectares of land at a cheap price to An Thuan coffee enterprise.

⁴ I use the term “official” to refer to land that was authorized by the government or land within its boundaries that had been claimed by villagers for years, which Eanam commune recognised in its statistics. In fact, villagers still relied on “illegal” cultivation on forest land that belonged to the forestry enterprise as long as they were not discovered by the latter.

absolute and relative terms. One can imagine that with only 54.2 hectares for the village or 0.6 hectare for each household, villagers could not produce enough for subsistence.

Why did villagers lose so much of the land previously used for subsistence production? Villagers asserted that when coffee prices were high, they thought that coffee could bring them prosperity and money to fulfil any need. They therefore put more effort into coffee production, choosing good land for it. At the same time, the market price of land was high; this fact along with urgent need for external inputs for coffee such as fertiliser and water pumps drove villagers to sell much of their land to outsiders. As a result, the amount of land reserved for subsistence production shrank greatly. Short on land, villagers had no choice but shorten the time of fallowing and to cultivate the same land for more years until it was exhausted. Subsequently, the subsistence system was disrupted because the current amount of land was too small to allow the cycle of cultivating and leaving fallow required for sustainable shifting cultivation.

Ecologically, when the subsistence production cycle was disrupted, both the productivity and the yield of swidden rice deteriorated drastically, failing to produce sufficient quantities of food. Villagers said that now the productivity of rice decreased significantly because the fallow time was shortened greatly and land was overexploited. Many villagers complained that they lacked rice to eat for several months a year. There was only one household, that of Ma Rup, which still kept 6 hectares of land for subsistence production, but he also commented that he had not been able to produce enough rice for home consumption for the year before [2000]. Ma Loi, from a poor household, said that he had lacked rice for 8 months the year before; he grew one hectare of rice but had a bad harvest because the land was exhausted from over-exploitation.

It should be noted that when subsistence production was disrupted, coffee production seemed to be a better alternative to rice not only economically, as discussed above, but also ecologically because villagers could plant coffee when the land could no longer grow rice. Let us consider Ma Dung's case: he had 4 hectares of land previously used for swidden. He claimed that after he grew rice on the same plots for four years, it

could no longer grow. He decided to plant coffee on two hectares of that land in 1998. He argued that if he had left it fallow, it would have been a long time before he could use it again because the ability to reforest was already weakened due to root damage and soil exhaustion. It was better for him to plant coffee in the hope that he would have a first harvest in three years.

Thus, in the beginning when pioneers adopted coffee, land was still sufficient so coffee seemed to not compete with subsistence or at least did not disrupt subsistence production. With land loss due to external forces, the expansion of coffee came at the expense of subsistence in terms of land, which in turn disrupted subsistence production. As a result, by the time subsistence production could no longer ensure the villagers' livelihood, coffee had replaced swidden in economic and ecological terms.

Labour competition

In traditional Ede society, labour was organized to meet the requirements of subsistence-oriented economy. Swidden rice production was the main agricultural activity, supplemented by hunting and gathering to ensure their livelihood and fill up the spare time left over from swidden. Traditionally, Ede agricultural activities were relaxed, regular and in tune with the surrounding rhythm of the ecological system.

When coffee trees were adopted into this farming system, the labour arrangements of individual households and the village adapted accordingly. Labour allocation now was adjusted to meet the requirements of both coffee and subsistence production. Unlike traditional crops, coffee required an intensive investment of both capital and labour. Villagers said that now they worked hard all year, and their relaxation time was filled up by coffee production activities such as weeding, watering and fertilising. Moreover, deterioration in subsistence due to loss of forest, a shortage of land and a decline in the quantity of food available in streams or forests made villagers invest more time in agricultural activities to compensate for the loss. The table below shows changes in the labour schedule of Ede agricultural activities.

Table 4: Labour Schedule Of Ede Agricultural Activities Around The Year

Month	Agricultural Cycle	
	Traditional Ede society	Present Ede society
January	Relaxing after rice harvesting, making sacrifices	Weeding and watering and fertilising coffee (first time).
February	Relaxing after rice harvesting, making sacrifices	Watering coffee (second time), making sacrifices
March	Clearing forest for new fields	Watering coffee third time. Clearing rice fields
April	Re-clearing and burning woods on the rice fields, making “mbu lan” sacrifice, sowing corn.	Re-clearing and burning woods on the rice fields, sowing corn.
May	Sowing rice, pumpkins, cucumbers, peanuts and beans.	Sowing rice, pumpkins, cucumbers, peanuts and beans.
June	Weeding rice fields	Planting coffee, weeding rice fields
July	Weeding rice fields	Fertilising and weeding coffee fields and weeding rice fields
August	Weeding rice fields	Weeding rice fields,
September	More free time	Fertilising and weeding coffee
October	First rice harvesting, making a sacrifice for this.	Harvesting coffee cherries and rice.
November	Rice harvesting	Harvesting coffee and harvesting rice in concentration.
December	Relaxing after rice harvesting, making sacrifices	Harvesting coffee

Source: Field interview, March 2001

The table shows that in most ways, requirements for coffee production overlapped those of subsistence production. Thus, there was competition between coffee and subsistence production. Some villagers stated that when they pursued coffee production, they did not have time to weed or even plant their rice fields, so they could not produce enough rice for their family's consumption. In particular, the poor who had to rely on labour wages for their daily needs did not have time to do their own work. It should be noted that although labour exchange (mutual help), so-called *bi ring* still existed, labour hiring among the villagers had begun to take place in Buon Brieng A. Some wealthier households who were successful in coffee production hired labourers from poor households to work for them. In return, these poor labourers could receive rice or money according to the number of days they worked. A poor labourer often joined in a *biring* group to work for his employer instead of working for himself.

When the *biring* group worked for his employer, he needed to work to pay back the labour with the number of days equivalent to that of members of the group. So many poor villagers complained that they did not have much time for their own fields. Mr. Y Xen, son of a poor family, said that:

This year my family lacked rice. My family have many children. My brother and sisters still are young. I have to work for the rich to earn money to buy rice. The price of labour is VND 10,000 a day. I have to work for others so I do not have time to weed my own rice field.

Field interview, 2001

When asked why his coffee field was filled with weeds, Y Preng, from another poor family, explained:

My family is poor. We do not have money to buy rice. I have to work for the rich to buy rice. I did not have much time to do my own work. This coffee field needs much labour for weeding. I could not do it. Even for rice fields we did not have labour to weed grass. They did not bear fruit. Because I am poor so I need to work for the rich, while the rich lack labour but have money to hire others to work for them.

Field interview, 2001

Thus coffee production brought a great change in labour arrangements in Buon Brieng A. Coffee production required intensive labour that overlapped with activities of subsistence production. There was competition for labour between the two. However, some wealthier households could have both coffee and subsistence by hiring labour, although subsistence production failed to fulfil their food needs. The poor households facing a shortage of food tried to earn money by working for the wealthier, which left them less time to pursue their own work.

“Economic crisis”: from self-subsistence to external dependence

Thanks to a wealth of natural resources and a sustainable agricultural system, traditional Ede society enjoyed a high degree of economic autarky. A rapid shift to commodity production, and depletion of natural resources raised the risk of unanticipated costs for the Ede in terms of stability, sustainability, solidarity and self-

subsistence. With depletion of forest and natural resources and disruption of swidden rice production, villagers now experienced a serious deterioration in their level of subsistence. Let us consider the comments from one Ede old lady:

Formerly, there were plenty of fish in the streams and wild animals and vegetables in the forest. Each time we hunted, we caught many deer, and ate together, not selling anything. There were plenty of rice fields, we worked little but had plenty of rice. This season [from December to February] we just relaxed and performed ceremonies and then all villagers ate together. In April, we went to the forest to collect honey. In May, when it started to rain, we went to grow rice. We did not have money but honey. We could exchange it for jars and gongs in Buon Ho or Buon Ma Thuot. Now there are no deer; it is hard to find even rabbits. The vegetables are also gone. We do not have much land. We work a lot but do not have enough food to eat. Rice does not grow because the land is worn out.

Field interview, 2001

It is obvious that subsistence production, including hunting and gathering, has now become less important to them. Now most villagers fulfil their daily needs for food such as meat, fish, rice, some necessities and even vegetables by purchasing them in the market rather than collecting them in the forest, although the poor still rely on this method for their survival. With deterioration in subsistence, coffee has become the main source of income over the past few years. When coffee prices were high, coffee was source of cash for villagers to fulfil their needs for food and production expenses. Even the poor who did not have coffee or whose coffee had not borne fruit yet found it easy to obtain money by working for or borrowing from wealthier neighbours. In addition, according to villagers, in the beginning of coffee expansion, land or subsistence was sufficient so that when facing the financial need, some villagers who had no income from coffee fields could sell off land, produce or cattle for this purpose.

Recently the situation changed when coffee prices dropped drastically, associated with deterioration of subsistence and a shortage of land. Villagers, even the wealthier ones, faced financial difficulties in meeting both food needs and production investment requirements because the profits from coffee were much smaller. Meanwhile the poor households faced difficulty in finding employment from their neighbours. How did villagers deal with the problem of their survival when coffee prices fell?

As discussed above, many Ede households in Buon Brieng A engaged in coffee production. Unlike traditional crops, coffee required relatively expensive inputs such as fertilisers and irrigation. In particular, according to villagers, coffee required at least three rounds of watering; otherwise the trees would wither or die. Some of the wealthier households who had “red books” (land use rights) and good social networks could seek capital from other sources of credit such as trade agencies and government banks to fulfil their financial needs, although it was not easy to access these channels of credit. Meanwhile many of the poor found it difficult to get a loan or did not dare to try. Many of them were reluctant to borrow from outsiders because they were afraid that if they failed to produce a good harvest, their family would face bankruptcy. That was why Y Chuyen, a poor man, refused to take out a loan of VND 20,000,000 (US\$ 1300) with an annual interest rate of 10%, offered by a coffee trading agency. He said, *“I would rather eat dried fish than dare to borrow such an amount of money. If I fail, I will have to sell my coffee fields to compensate. I will die!”* Thus while wealthier villagers could obtain capital to invest in or even expand coffee fields, many of the poor struggled even to maintain them. During my fieldwork, Ma Loi, a poor man, tried to sell his pig in order to buy petrol to run a water pump that he could borrow from his father-in-law. Others sold off their limited land to deal with financial problems.

Another problem the poor households in Buon Brieng A faced was meeting their daily food needs. Lacking money to purchase necessities was a common problem for these families. There were no financial resources readily available among villagers because most households often faced financial difficulty in their livelihood or production. So poor households could not rely on their relatives or neighbours but had to depend on the merchant stalls in the village for their survival. In normal times, the merchants allowed villagers to buy food and other necessities on credit because the latter did not always have money or produce to purchase. They would repay their debts in the season of harvesting coffee or other produce. However, when coffee prices dropped, although poor households restricted their consumption, they found it difficult to buy food on credit because the merchants only favoured those who had the ability to repay. As a result, some poor households had to rely on searching for food in the streams or forest for their daily needs. During my fieldwork, many villagers asserted that they had had to “illegally” clear land in the deep forest for rice production (called *da trang*) 20 km away from the village. Land in this area was still covered by forest and belonged to

Thuan Man enterprise. Mi Soat, the poorest villager, said that she cleared almost one hectare of land for swidden rice and turned a wasteland area near the stream into wet-rice fields. She asserted that she had to do so to survive and she hoped that with favourable weather, this year [2001] she “would have some food to eat”.

Thus, with high reliance on coffee production and the disruption of subsistence production, the Ede economy now was vulnerable to external forces such as price fluctuation. When coffee prices dropped, many villagers faced “economic crisis”, especially the poor. As a result, wealthier households had to rely on outside sources of credit to meet their financial needs, while poor households relied on merchants and “illegal” forest for their survival.

Conclusion

Since reunification, especially under *Doi Moi*, the Central Highlands have experienced rapid socio-economic and environmental change. In the context of pressures from external forces, especially from spontaneous migrants, market penetration and FCPS policies, Buon Brieng A, a remote village, increasingly opened up to outside world. The village experienced a rapid rate of deforestation, depletion of natural resources and loss of land.

The shift from subsistence to commodity production was considered as part of the Ede’s adaptation to external and local changing environment. However, the rapid shift to and primary reliance on coffee production made the whole village lose its autarky, becoming dependent and vulnerable to external forces. On the one hand, coffee seemed to be complementary to deteriorated subsistence production in terms of providing cash income to fulfil needs in food and outside goods that existing subsistence production failed to supply. On the other hand, coffee seemed to compete with subsistence production for land and labour in the context of land shortage, which made the subsistence problem worse.

Besides losing autarky, the shift to coffee production has caused social differentiation and reduction in mutual assistance among villagers. Some became “winners” while others were “losers”. Those who adopted coffee comparatively early and successfully

could fulfil their daily needs with its profits or loans from outsiders; those who were unable to plant coffee successfully or planted it late would find it difficult to fulfil their daily needs. They therefore filled their financial gap by selling off means of production such as land and cattle, which in turn has caused their economic status to deteriorate further and the gap in wealth between the poor and rich to widen. Moreover, the penetration of market relations associated with coffee production has weakened the mutual assistance among villagers. Villagers are now reluctant to share their food. Mutual assistance has often come to be based on balanced reciprocity rather than “forced” generosity. Meanwhile government loans and extension services are not easily accessible or readily available to the poor.

Thus, with the inadequate social safety net from both village and the government, a drop in coffee prices caused most villagers, especially the poor, to face “economic crisis”. Gathering food in the exhausted forest and rice production in “illegal fields” are two strategies by which poor villagers guard against “economic crisis” in such a context. This is only a temporary solution for the poor to survive, not a way to earn a living. It should be noted that in August, during the writing of my thesis, more than 120,000 people in the Central Highlands were seriously suffering from hunger, forcing the government to grant 100,000 dollars in emergency food aid to the region. The government blamed the problem on a drought that had struck the region in early 2001 and on a sharp fall in prices for agro-commodities such as coffee (Eastern Time, August 2001).⁵

Recently, in response to social instability (unrest) caused by thousands of protestors from the region’s indigenous ethnic minorities in January and February 2001,⁶ the government has paid more attention to stabilizing the region and reorienting its economic and social development. At the end of October 2001, a government decision granted an outlay of VND 35,000 billion (US\$2.36 billion) to restructure the economy of the Central Highlands for the next five years (2001-2006), favouring the industrial, construction and service sectors at the expense of agriculture and forestry sectors in terms of their proportion of GDP. However, while the government has tried to link

⁵ Subject: Hunger hits more than 120,000 people in restive highland, copyright 2001 Agency France Presse, August 8, 2001

⁶ The government agencies largely blamed the problem on foreign “evil” forces. I believe that the “economic crisis” in subsistence was not less important in causing social instability in the region

“economic expansion” to “struggling against hunger and poverty”, it continues to assert the role of intensive farming or commodity production, but it does not recognize the role of subsistence production in securing the highlanders’ livelihood and protecting them from high dependence on external forces.⁷ I would argue that any effort by the government to replace part of the existing coffee production with other cash crops and to develop industrial sector and infrastructure to facilitate commodity production but without paying attention to subsistence production will not necessarily lead to an improvement in the poor highlanders’ livelihoods. Such policies, if effective, will benefit the wealthier rather than the poor who are involved less in commodity production (even though the objectives of these policies focus on poverty reduction among the latter). This also may aggravate the existing social differences between the poor and the rich.

⁷ <http://vietnamnews.vnagency.com.vn/2001-11/20/stories/03.htm>

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