


# Follow-up Study for the Economic Development Policy in the Transition toward a Market-oriented Economy in Viet Nam

## VOL. 3 Agricultural and Rural Development

December 1999

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Ministry of Planning and Investment  
The Socialist Republic of Viet Nam

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Member List of Research Group

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# Agricultural and Rural Development



# The Economic Crisis and Agriculture--Lessons for Viet Nam

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## Introduction

The economic crisis that hit Southeast Asia over the past two years has confirmed that a sound agricultural sector is vital for stable national economic growth and development. I believe Viet Nam can learn a lot of lessons from the hard experiences that the region had to go through. This paper describes what has happened in Southeast Asia and explains the relationship between the currency and economic crises and agriculture.

## I. Overvalued Exchange Rates and Changing Domestic Prices

First of all, let me analyze statistically the impact that the currency crisis had on the region's economy, especially on domestic prices.

Southeast Asian currencies had been overvalued since the beginning of the 1990s. It was obvious from the dropping WPI (wholesale price index)/CPI(consumer price index) ratios in these countries. While WPI shows the trend of tradable goods prices, CPI reflects the prices of composite commodities, which include not only tradable consumption goods but non-tradable goods such as services as well. Therefore WPI/CPI is an insufficient but simpler indicator alternative to the real exchange rate, which is sometimes defined as the tradable goods prices/non-tradable goods prices ratio. The WPI/CPI ratios in those days clearly showed the overvaluation of the exchange rates of Southeast Asian currencies.

Naturally, labor productivity growth rate is lower in non-tradable goods than in tradable goods. That means WPI grows more slowly than CPI in a long term. Thus there might be some problems in regarding WPI/CPI as an indicator of the real exchange rate and of the international competitiveness of the tradable goods sectors. However, since the decline in the WPI/CPI rate in 1990s was observed within a rather short term, it must have reflected the exchange rate overestimation. It is also obvious that before the currency crisis, tradable goods industries were at a disadvantage against non-tradable goods industries in Asian domestic economies.

After the currency crisis, WPI has been raising dramatically compared to CPI in every country in the region. While the countries are confronted with accelerating inflation, domestic relative prices are changing greatly. These extensive structural changes in relative prices will have a significant impact on the inter-industrial resource allocation to industries in Asian countries.

## II. The Impact of the Currency Devaluation

The overvalued currency rates provided distorted macro incentives to the domestic economies. As described in I, they had given the excess incentives to non-tradable goods sectors rather than to tradable goods industries. The currency crisis has brought a rapid transition to the floating exchange system, and therefore, to the currency devaluation. This devaluation has modified the distorted economic incentive structure. It has also provided the Southeast Asian economies with an environment in which they can achieve industrial adjustment, again encouraging the production of exports.

Any crisis consists of a danger and opportunity. In a long-term view, a crisis can be, in many cases, an opportunity to take up a new challenge.

In the current financial crisis caused by the currency crisis, structural adjustment is required of the financial and real estate sectors. Such adjustment has its risk; if banks holding bad debts go bankrupt, domestic payment systems will collapse. In general, however, the adjustment in financial and other non-tradable goods sectors is expected to have a good impact on the Southeast Asian economies in a long term.

Even within the tradable goods sectors, the devaluation has been expected to promote industrial adjustment. The sectors importing most of the parts and intermediate goods and selling their products in the domestic markets were forced to significantly cut back production. A typical example is the automobile assembling industry. The devaluation has had a more complicated impact on the sectors relying on imported parts and intermediate goods and exporting their products. As a result of the devaluation, the prices of exported products in dollars in the international market have fallen, while the costs of parts and intermediate goods in terms of domestic currencies have risen. That is what has happened to labor-intensive electronic products. If the Southeast Asian countries reduce the costs of parts and intermediate commodities by lessening trade barriers against them and promote free trade within the region, the exported products will be able to keep prolonged international competitiveness. The currency crisis is likely to have the best and biggest effect on the export industries using domestic parts and material, such as agriculture. In Thailand, for example, the dropped prices of exports in dollars have led to a very rapid increase in rice exports. In 1997, the country has become the largest rice exporter in the world with the annual exports of about 5,300 thousand tons. Processed agricultural products will also attain stronger international competitiveness as a result of the devaluation.

In summary, the currency devaluation in Asian countries will help to adjust their industrial structures according to each country's comparative advantage.

## III. The Impact of the Devaluation on Agriculture

Now, let us focus on the better position agriculture has enjoyed compared to other tradable goods industries. It should be remembered that in a short term, price elasticity is lower in



the agricultural sector than in the manufacturing industry. Thus agricultural products have a relative-price advantage over manufactured goods. Consequently, a stronger incentive is given to the production of both agricultural products for export and those competing with imported products.

Moreover, the commodities injected into agricultural production are mainly domestic products except technical commodities such as chemical fertilizer. Few of the material and intermediate goods are imports. This also makes agriculture advantageous against the manufacturing sector.

In this sense, the agricultural sector will play an almost critical role in the recovery from the economic crisis. The importance of agriculture has been undoubtedly confirmed in Indonesia, the country most severely attacked by the crisis. It has had the biggest impact on Java, particularly the non-tradable commodity sectors such as the construction industry in urban areas. The import substituting manufacturing industries located in industrial complexes around the cities are also faced with considerable difficulties, because they have been based on the domestic market and have relied on imported material and intermediate goods. Contrary to these urban capital-intensive industries, agricultural production has increased, getting a strong positive incentive during the crisis. For example, in Aceh on the northern side of the Sumatra Island the expansion of coffee exports has led to a 2.5 % increase in the gross annual production in 1998. During the same year, Irian Jaya on the eastern side of Indonesia achieved the economic growth of 1.5 % (*Newsweek*, February 3, 1999). In Thailand, increased rice exports and other agricultural production have also significantly contributed to the nation's economic recovery. In addition, the agricultural sector has provided a job to a large number of unemployed urban workers created by the economic crisis. In the present circumstances, the significance of a sound agricultural sector is increasingly acknowledged.

Another issue to be noted is the relationship between increased agricultural production and income distribution within rural areas. In a country where agriculture is mainly run by families, like in Thailand, a rise in agricultural product prices results in an increase in farmers' family incomes consisting of wages and land rents. Income distribution in rural areas does not deteriorate. The increased family incomes support or promote demand for mass consumer goods, giving a positive incentive to manufacturing production in the country and accelerating the recovery of the national economy.

On the other hand, in a country whose agrarian structure is divided into landlords or large-scale farmers and tenant farmers (Philippines, for example), changes in domestic relative prices due to currency devaluation are not likely to create the good economic conditions as in Thailand. In the Philippines, the prices of agricultural products have dropped due to the reconsideration of the exchange rate. The government has adopted various agricultural protective measures to cope with the situation. Since the exchange rate is now devaluated to an almost same level as peso's real purchasing power, Philippine rice might recover its international competitiveness without the protective measures.

Even if the relative prices of agricultural products rise due to the devaluation, however, farmers would not get more wages, because there is an infinite supply of tenant farmers. When the prices of agricultural products rise and the wages of farmers do not rise, landlords get more. In other words, income distribution gets worse. Of course, the increase in agricultural production expands the gross employment, improving the income standard in rural areas as a whole. Yet the effect would not be as considerable as the former case in which farming is managed mainly by families. The incentive to domestic consumer commodity industries would be limited. Most of the increased incomes of landlords would be spent on expensive imported consumer goods. In this case, therefore, agriculture does not make significant contribution to the nation's economic recovery.

Agriculture plays a vital role in a nation's recovery from the economic crisis. However, we should keep in mind that how agriculture can contribute to economic recovery depends on what kind of agrarian structure is dominant in the country's rural areas: the family farming, or landlord system.

#### IV. Lessons for Viet Nam

The considerable devaluation of the Southeast Asian currencies during the economic crisis has given, from a long-term perspective, a positive economic incentive to the production of tradable agricultural products. Yet the structural changes in domestic relative prices due to the devaluation are only part of the requirements for a sustainable growth of agricultural production. Let me describe what has happened to Thai agriculture after the crisis, in order to draw some lessons for Viet Nam from it.

While the devaluation of the baht has improved the competitiveness of Thai agricultural products in the international market, it is revealed that the lack of enough water for irrigation limits the production of rice, the nation's major agricultural product. In central Thailand where a large part of the domestic rice is produced, the planted area of rice during the dry season has increased to 0.3 million ha beyond the governmental estimate, since the devaluation has raised rice prices. The result is a serious water shortage. The government imposed a three days of water use restriction on farmers, but few of them obeyed it. In Chai Nat and some other areas in central Thailand, a number of people have dug wells to cope with the water shortage (*Nihon Keizai Shimbun*, February 8, 1999). This reminds us of the importance of establishing agricultural infrastructure. In the booming economy since late 1980s, Thailand failed to properly recognize the role of agriculture in a national economy. The government injected little public money into agricultural infrastructure, which was the basis for agricultural production. As a result, Thailand could not make sufficient use of good macroeconomic conditions provided by the economic crisis.

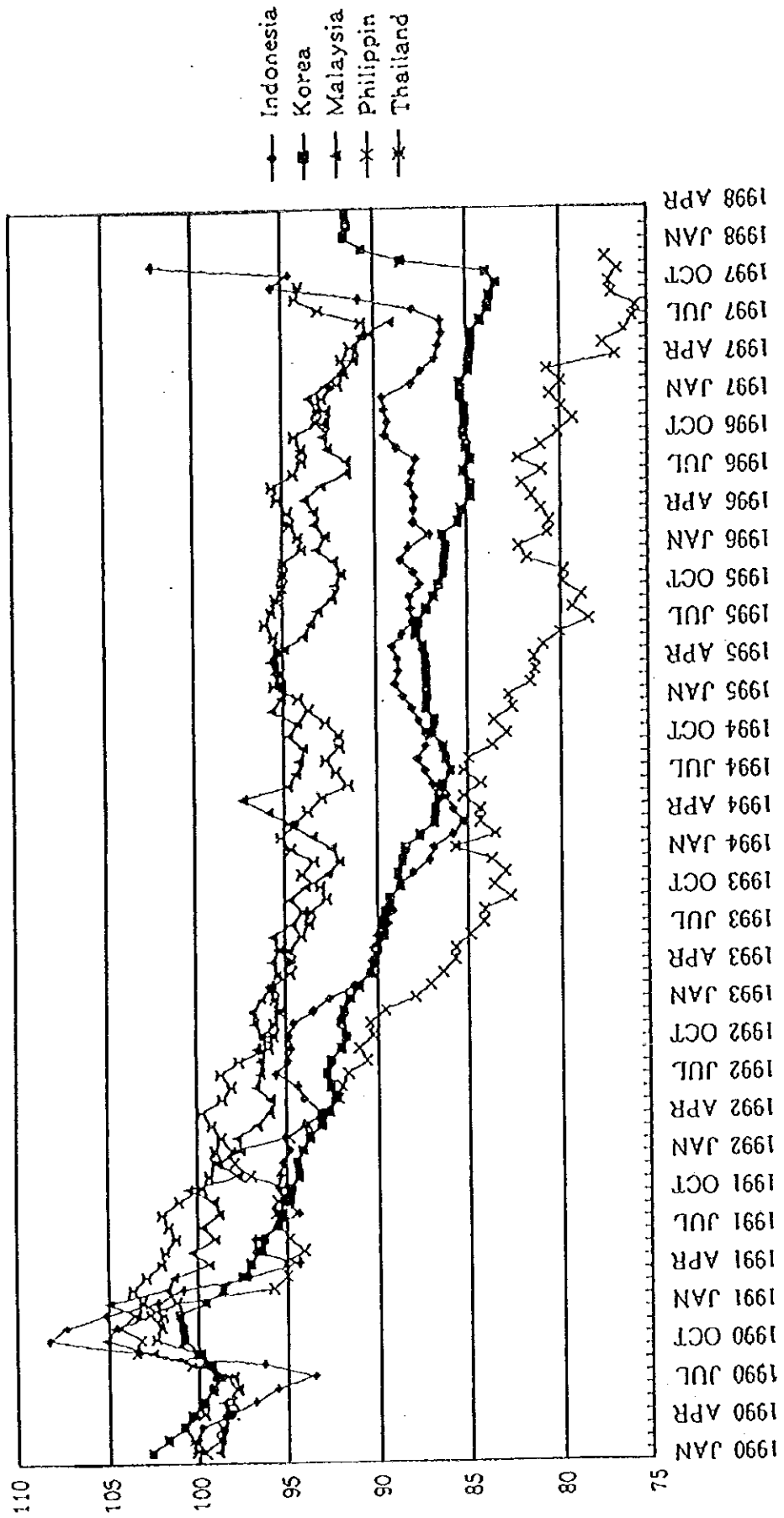
During the financial crisis in Thailand, it was found that substantial bad debts had accumulated in the agricultural processing sector including rice polishing, sugar refining and tapioca manufacturing industries. Side businesses started during the period of bubble

economy caused these debts. Banks do not provide finances to the processing industries any more. So they cannot afford to purchase agricultural products, and the situation is affecting agricultural production. We should recognize that when agricultural growth is supported by the diversification of agriculture, the growth can be influenced by the financial conditions of the processing industries.

Besides, the prices of agricultural and other primary products have been stagnant all over the world since mid-1998. The prices of sugarcane, tapioca, rubber, etc. in the international market have been falling due to excessive production and dropped demand following the economic crisis. The currency devaluation has provided an advantage to Thailand's agricultural sector in terms of domestic relative prices. However, as the nation's economy becomes more open to the global market, changes in international prices will increasingly affect the sector. The Thai government is faced with a hard task of taking financial measures to support diversified domestic agriculture.

I have described some of the experiences that the Southeast Asian countries have gone through. We can draw from them a lot of important lessons for the sustainment and development of the recovery process of Viet Nam's agriculture. As this whole paper indicates, agriculture in Viet Nam has the same problems as those confronting Thailand's agriculture. We have to note that the agricultural sector plays a vital role for a stable development of a nation's economy as well as for the growth of agriculture.

WPI/CPI (1990=100)



## Outline of Chapter

Phan Doanh

Ministry of Planning and Investment

### I. Achievements in the Development of Agriculture and Rural Areas in the Past Ten Years

For the past 10 years, agriculture and rural areas in Viet Nam have reached vital achievements. Agriculture (including forestry and fisheries) has obtained a quite high and comprehensive growth rate in many fields. In particular, the most important achievement is a sustainable and continuous increase in food production, which has changed Viet Nam from a food-shortage country to one of the primary food-exporters in the world. Infrastructure has been improving. The socioeconomic aspect is renewed in the countryside. Material living, cultural and spiritual affairs of communities have been improved. Politic security, social order and defense are ensured. The production relationship has changed basically in quality, which creates conditions for freeing and developing productive forces. Having the above-mentioned achievements, agriculture and rural areas have reached a peak in historical development for nearly 5 decades. This has contributed an important part in leading our country out of crisis and in creating a foundation for social-economic-political stabilization. This has also helped our country to integrate into regional and international communities and created premises for pushing forward industrialization and modernization. The important reason for the above victories is the "renovation" guideline, which has been initiated by the Party since 1986. Afterwards, the Party and the State promulgated a number of appropriate directions and policies, of which Resolution 10 of the Politburo (1988) has been considered as a motive policy. Farmer households have been recognized as independent economic units, and they are free and used all their abilities to enrich their families, society and themselves legitimately. In addition, owing to proper investment, material basics have brought into play efficiently, especially irrigation projects. A lot of technical advances have been applied. These achievements are expressed in some main aspects as follows:

*1. Agriculture has reached a quite high and comprehensive growth rate in many fields. It has been estimated that for 10 years (1991-2000), output value of the entire agricultural branch has increased by 5.6% per year, of which agriculture increased by 5.4% (food 4.2-4.3%, industrial crops 10%, animal husbandry 5.4%), fisheries 9.1%, forestry 2.1%.*

The salient point is that for 10 years estimated food output increased by 11 million tons (compared to 1990); the average increase is 1.1 million tons per year. In 1998, it was 31.85

million tons. Average food per capita increased from 294.9 kg (1990) to 407.9 kg (1998). Viet Nam not only has enough food for domestic consumption and stores but also has become one of the large-quantity exporters. In 1998, Viet Nam exported 3.8 million tons of rice; and by the year 2000 the figure is estimated at 4 million tons.

For 8 years (1991-1998), the production value of the entire agricultural branch increased by 5.96% per year: agriculture 5.68% (food 5%; industrial crops 10.4%; fruits 2.36%; beans and vegetable 6.08%; animal husbandry 5.85%); forestry 2.32%; fisheries 9.55% (fishing rose by 9.8%, aquaculture by 8.9% per year).

Pork (carcass weight) rose by 6.7%, poultry 6.8%, eggs 7.4% per year (in terms of production value).

Some crops increased (also in terms of production value) quite well such as coffee by 20.8%; rubber 16.7%; tea 6.2%; vegetables 5-6% per year. Fruits of all kinds rose by 2.4%; particularly, for longan, litchi and rambutan, the average growth rate was 21% per year in the 1995-1998 period.

(In 1998, the output of coffee was 409,000 tons; of rubber 199,000 tons, of tea 52,000 tons; of vegetables more than 5 million tons. The total number of pigs is 18 million head; of poultry more than 166 million; and of eggs 3.2 billion).

Fisheries accounted only for 10-11% of the total value of the agricultural output, but it became the major export branch in the national economy, which made up about 20% of the agricultural export turnover and about 8-9% of the national export turnover. Exports increased on the average of 20% for 8 years, and the estimated growth rate was 17.7% per year for the 10 years. The fisheries' output increased by 8.85%, of which the aquacultural output rose well—at the rate of 13% per year. In 1998, the fisheries output came up to 1.755 million tons; export value reached USD 850 million. Aquacultural areas covered over 508,000 hectares.

Regarding the forestry sector with Program 327, forest diminution started to be prevented. Forestry has been changed from an industry based mainly on the state sector, biased towards cutting timber to one based mainly on silviculture and the people are considered as a major workforce to protect and develop the forest. In the 1976-1990 period, forest area disappeared on the average of 190,000 hectares per year, but the figure was only 35,000 hectares in the 1991-1998 period. For 8 years (1991-1998), 1.373 million hectares of forest have been planted, 9.3 million hectares of existing forest have been protected, and 700,000 hectares have been regenerated. The ratio of covering forest, which excludes those areas covered by perennial industrial crops and fruit trees, rose from 28.2% (1995) to 30.8% (1998). Many provinces have a very high ratio such as Tuyen Quang (45%). In order to implement instruction on the closing natural forest, the output of wood which was exploited from natural forests declined from over 1 million m<sup>3</sup> (in 1990) to about 0.6 million m<sup>3</sup> (in 1996), and

is at the level of 0.15 million m<sup>3</sup> (1999 plan). The export value of forest products is about USD 158 million per year.

Export turnover of the entire agricultural branch has increased rapidly. In 1990, it was USD 1.106 billion; in 1998, it was USD 4.394 billion which made up 47.9% of the national export turnover. The increase was on the average of 18.8% per year in the 1991-1998 period and the estimated average will be 15.07% for the 1991-2000 period.

Comparing with the development targets for the 1996-2000 period made by the 8th Party Congress, many important goals were achieved and over-fulfilled. The planned growth rate of agricultural production is 4-4.5%, the estimated result is 4.5-4.8% (for all agricultural-forest-fisheries production). The targets for fisheries (fishing output and aquaculture, export value) and for sugar production were fulfilled. For the target for food output, the planned figure is 30 million tons by the year 2000; but in 1997, it had already reached 30.5 million tons. If food output is 32.5-33 million tons in 2000, it will exceed the target by 2.5-3 million tons. This goal is important and was achieved 3 years earlier than was planned. It is the greatest achievement in agricultural and rural development in 10 years.

*2. Rural professions (vocations) have been re-established and developed; many large-scale, specialized regions that produce agricultural commodities and are closely combined with the processing industry have been set up. These form new positions and strength for the agricultural and rural economy.*

By the year 1998, the area of rubber production was over 389,000 hectares, which was mainly concentrated in the Central Highland, the Southeast; the coffee Production area was 362,000 hectares – mainly in the Central Highland; tea was over 83,000 hectares in the Northern Midlands and Mountains, Lam Dong province. Many regions growing having large areas growing fruit such as litchi of high quality (about 7,000 hectares in Luc Ngan district, Bac Giang province); apricot, plum, orange, mandarin, custard-apple in the Northern provinces; dragon, grapes in the Central; and longan, mango in the Mekong River Delta were established. Diversification of agricultural production tended to reduce the proportion of food crop area from 78% (1990) to 72% (1998). Some products, which were increased, could partly meet domestic demand and, therefore, reduce imported quantities. In 1998, fiber cotton production amounted to 7,000 tons, which met 11.6% of demand; by the year 2000, it is estimated that this amount will be 25,000 tons, which could meet 25% of demand. Milk output reached 38,000-40,000 tons, meeting about 7-8% of demand. From 1999, it is expected that, domestically produced sugar will basically meet the demand, and there will be no need to import.

Rural professions have been developed. Hundreds of traditional handicraft and small industrial villages have been rehabilitated and developed to support such industries as porcelain and china, textiles, wood-engraving, and woodwork. This creates conditions for

generating non-agricultural jobs. The proportion of agricultural labors in the total labor-force declined from 72.27% (1990) to 68.78% (1997).

*3. The agricultural and rural economy has step by step been integrated in regional and international economy. This is a condition for expanding markets and increasing exports of agricultural products. It also induces Viet Nam to enhance quality and production efficiency to increase the competitiveness of its goods in the international market as well.*

Vietnamese agricultural and rural products are found in a lot of regional and international markets. Some exported commodities have occupied an important market-share in international markets such as rice, which is ranked second in the world (following Thailand), and accounts for about 20% of the international rice market; coffee is ranked third and accounts for about 10% of the international market (following Brazil, India); cashew nuts are ranked second (following India). Some other commodities have started to penetrate into such strict markets, such as vegetable into Japan, suckling pig into Hong Kong and Singapore, canned pineapple into America, and fisheries products into the EU. On the other hand, there are a lot of foreign goods in the Vietnamese market such as grapes, apples, oranges, mandarin oranges and even rice.

There are more and more Vietnamese people going abroad to exchange experiences in management, production, business, culture, and tourism. The number of foreigners who come to Viet Nam to get knowledge, do business and expand the market is increasing. At the end of 1997, there were more than 360 FDI projects in the agricultural-forest-fisheries and food processing fields with a total investment capital of more than USD 3.7 billion. There were also over 130 ODA projects which committed financing for agriculture and rural areas with a total capital about USD 1.5 billion.

*4. Many technical and scientific achievements have been applied and are taking an important part in agricultural and rural development.*

Many new plant seeds and breeding animals have been used in production. According to the assessment of agricultural experts, up to now nearly 70 new varieties of rice have been planted in 87% of the paddy cultivated area (it was 17% in 1980, and 47% in 1990). In 1998, varieties imported from the International Rice Research Institute (IRRI) were grown in 50% of the paddy cultivated area in the Mekong River Delta. In the Red River Delta, hybrid varieties were planted in 12-14% of the paddy area. Hybrid maize accounted for 40-45% of the area, hybrid cotton accounted for 70%, and high-yielding sugarcane accounted for 16%. Compared to total head of each animal, the Sindhi hybrid cow made up 12%, and leaner pigs (45-50% lean) made up about 20%. Many breeders of shrimp, crabs and other special aquaculture were developed.



The pattern of cropping has changed with the tendency of enlarging high-yielding winter/spring and summer/autumn paddy areas, and of reducing low-yielding winter ones. (The pattern of winter/spring-summer/autumn-winter areas was 30:13:57 in 1980 and 38:26:36 in 1997, respectively).

*5. Material and technical infrastructure has been improved. That makes an important change to agricultural and rural productive forces.*

Up to now, 743 medium and large ponds and dams, and 3,500 small ponds have been built. There have been over 1,000 large draining sewers, about 10,600 large and medium pumping stations with a total capacity of 24.8 million m<sup>3</sup> per hour, over 1,000 large draining and irrigating channels, and a network of inside-field draining and irrigating with 755,000 small and medium water pumps purchased by cooperatives or farmers. For 10 years, irrigation capacity has risen by 1.4 million hectares, and draining capacity by 250,000 hectares; so the total designed irrigation capacity has reached 3.7 million hectares, with draining capacity reaching 1.4 million hectares. 5.94 million hectares (out of 7 million ha of paddy cultivated area) and 900,000 hectares of vegetable and industrial crops are now irrigated by the irrigation system. There are 122,958 tractors of all kinds—an increase of 4.9 times compared to the 1990 level—of which big tractors (>12 horsepower) account for 30%. There are over 231,159 threshers powered by engines—an increase of 8 times compared to the 1990 level. The number of cars is 22,000, which is twice the 1990 level, of which 15,000 lorries (90% of which are owned by farming households). Fishing ships (powered by engine) amount to 71,600, which is 1.7 times the 1990 level, of which 4,000 ships are with large-capacity (>90 horsepower) and are capable of offshore fishing. For 10 years, about 25 fishing ports with a total berth length of 4,000m have been improved and upgraded, of which 12 ports are on islands. A network of fishing ports has been built. The number of machines has increased rapidly, so many hard jobs can be mechanized. This creates conditions for rising productivity and a decrease of manual labor.

The rural transport system has been upgraded and developed. By the end of 1997, 93% of communes had roads to their centres; nearly 70% had electricity; 98% had primary schools; 92% had health clinics; and nearly 40% of the population had safe water to use. Many new rural towns were established.

Many processing factories and refineries have been built, including 50 sugar refineries with a designed capacity of 1 million tons of sugar, nearly 200 fisheries with a capacity of about 200,000 tons, about 40 rubber factories with a capacity of 270,000 tons of rubber milk, 70 tea factories with a capacity of 50,000 tons of dried tea, over 60 cashew-nut factories with a capacity of 220,000 tons of cashew material. These have created a new face for the agricultural product processing sector, and have also created conditions for increasing the value of agricultural products.

More than 30 scientific research institutes and stations for breeding plants and animals have been set up. For fisheries, up to now, 1,415 breeding stations, have been built including 375 stations and 1,040 shrimp stations. Five billion fish breeders and 3 billion shrimp breeders can be produced annually.

*6. Production relationships have changed basically in quality, and that is an important condition for freeing and developing agricultural and rural productive forces.*

Households are considered as independent economic units. They themselves can decide production lines, decide to buy or sell materials, and also decide to sell products made from their own land. Tens of millions of farming households were freed from "everybody's business is nobody's business" as in former cooperatives; so they have tried their best to work and to create. Over 1.5 million farming households have reached good production standards.

A model for farming production emerged and has developed rapidly, exceeding our prediction. There are now about 115,000 farmhouses, mainly in the midlands and mountains, of which many have hundreds, even thousands, of hectares of agricultural land. This is an efficient model for agricultural production.

Old cooperatives have been reformed by the enactment of the new Cooperatives Law. Hundreds of cooperatives and cooperative groups are newly established and are doing business well.

State-owned agricultural and forest enterprises have seen many improvements regarding allocating of gardens and cattle to worker households on a contract basis.

*7. Conditions in the areas of accommodation, transport, medical treatment, income, and living standards in many rural areas have been improved step by step. The socio-economic aspect has changed significantly; millions of farming households have become richer.*

The proportion of households who possess solid houses, television sets, radios, bicycles, motorbikes, and electric fans is increasing. The proportion of poor households declined from 30% (1992) to about 17% (1998). Some products per capita rose quite well in 1998 compared to the year 1990. In particular, food rose by 1.25 times, pork (carcass weight) 1.42 times, eggs 1.5 times, beef 1.32 times, poultry meat 1.33 times, and fisheries output 1.6 times.

The proportion of persons who can read and write or have graduated from universities, training colleges, or secondary schools has increased. In the 1998-1999 school year, the average number of people enrolling in schools out of 100 people were 13 for primary school, 7.13 for junior high school, and 2.11 for secondary school. Compared to the 1990-1991 school year, the numbers have risen by 1.78 times for junior high schools and 2.67 times for secondary schools (no rise for primary schools). Cultural affairs, gymnastics and sports,

and traditional customs and festivals are being rehabilitated and developed. More than 272,000 households with 1.2 million people of which 623,000 were laborers were moved to new economic zones. They were helped to initially stabilize their daily life and then to work. About 800,000 people of ethnic minority were settled permanently; and over 1.2 million people are getting benefits through projects for fixed cultivation and resettlement. In many border areas mines have been disarmed and infrastructure has been upgraded, so people's lives have stabilized.

*8. The management and organizing system in agricultural production and rural area has been strengthened from the central to local levels, and that has played an important part in stimulating agricultural production and developing the countryside.*

At the central level, the Ministry of Agriculture and Rural Development was re-organized in the line with the unification of three former ministries: the Ministry of Agriculture and Food Industry, the Ministry of Forestry, and the Ministry of Water Resources. At the provincial level, many corresponding departments were formed as well. The Bank of Agriculture and Rural Development and the Bank for the Poor were established to supply credit for agricultural production and the countryside. A system of Credit Funds came into being with over 1,000 funds operating at the village and commune level. A system for agricultural-forest-fishery extension was also set up. So far, there is an agricultural extension centre in each province and throughout the country there are 377 district or inter-district centres with a total staff of over 2,800 people. In addition, 80% of communes have local extension personnel. From the central to local levels, management cadres in agriculture and rural areas are strengthened, trained and re-trained.

## **II. Some Recently Unresolved Issues of Agriculture and Rural Area**

Although a lot of important achievements were reached, there are still many unresolved issues and weaknesses in agriculture and rural areas. Production still contains some unstable factors. Yield, quality and efficiency are low; competitiveness and integration in regional and international communities are still weak. Technological science and infrastructure do not meet the requirements of advanced agriculture in the countryside. Relationships and management in production still need to be perfected. Economic structure reforms slowly. There are many redundant laborers and the proportion of trained laborers is low. In general, income is low and the proportion of poverty is high in many regions. The environment is polluted in some regions. Natural resources are continually destroyed. The main reason is that policies made by the Party and the State are carried out inefficiently and weakly. On the other hand, some of the state's policies and mechanisms are not integrated because they are not powerful enough. Our starting point is too low, both the state and the people

are poor, and investment capital is short; the ability of cadres from the central to local levels is weak, and they lack experience in managing production and doing business, so everything cannot be simultaneously dealt with. The unresolved issues and weaknesses are expressed in following aspects:

1. *Agricultural production in the countryside still contains many unstable factors and that makes sustainable development difficult.* Agricultural production is subject to damage from natural calamities. The state still subsidizes many products in many ways, including aid in the areas of interest, selling price, and transportation charges. If these subsidies dry up competitiveness will suffer. Some products are few but redundant. Many products do not meet foodstuff hygiene standards, especially exceeding levels of residual chemical substance for plant protection.
2. *Viet Nam's ability in integrating into regional and international economies is weak. That is the challenge for agricultural and rural development.* Productivity, quality and efficiency of production is low and production costs are high so competitiveness is weak both in the domestic and export markets. Many products do not meet large-scale export standards in such areas as vegetables, fruits, and meat. Some products mainly export in the forms of crude material, so prices are usually lower than standard international prices (rice is 30-50 USD per ton lower, coffee and tea 100-150 USD per ton lower and the price of pork is only about 60% of the international price). Some products can sell in the domestic market but at high prices such as sugar, milk, cotton, and artificial wood. (Cotton: the domestic production cost is 18,000-19,000 VND per kg while the import price is 18,000 VND per kg. Particular wood: the domestic production cost is 2.35 million VND per m<sup>3</sup> while the import price is 2.0-2.1 million VND per m<sup>3</sup>).
3. *There are many redundant laborers and the proportion of trained laborers is low. Rural professions and services are underdeveloped. Economic structure is reformed slowly.* The agricultural GDP still accounts for about 70 % of the rural economy. Cropfarming accounts for about 80% of the total value of agricultural output, while the figure for animal husbandry is about 20%. For the past 7 years, the rural population has fluctuated at around 78% of the total population. Only two thirds of working time in rural areas is used productively, i.e., there is some degree of underemployment. Redundant laborers number approximately 9 million; in fact this figure may be higher. There are more than 1 million people reaching the working age every year. The proportion of illiterate laborers makes up 5.8%. Trained laborers account for 10-12%.
4. *Infrastructure and technical basics are weak and do not meet the requirements of advanced agriculture and rural areas.* Irrigation projects only operate at 70% of designed capacity. A large number of areas, especially industrial crop areas are not irrigated. The system

of dykes is not safe. At the end of 1997, over 663 communes (about 6.7% of all communes) did not have roads to their centres; 91.7% of districts and 70.75% of communes had electricity but the quality of power networks was low, service was bad, electric charges were higher than those in urban areas. There are not enough schools, medical centres and equipment. About 76.4% of communes did not have medical doctors, 5% of communes did not have health clinics; 27% of health clinics did not have maternity hospitals or obstetricians. More than 60% of rural people did not have safe water to use, and more than 80% of households did not have hygienic latrines, especially in the Mekong River Delta.

5. *There are still many problems which need to be solved in the scientific and technical field. These are factors that limit productivity, quality and efficiency of agricultural and rural production.* High-yielding and good-quality varieties are not sufficiently applied. Hybrid varieties which are domestically produced only meet 10% of the needs. Varieties for aquaculture are not actively provided (except in fish breeding). Productivity of plants and animals is generally low and equals to only 30-50% of that of advanced countries. In terms of technique and technology, a lot of old and obsolete equipment is used that consumes much energy, makes costs high, creates losses, and leads to low quality of products. The average loss for paddy is 13-16%, in particular, the summer/autumn paddy crop in the Mekong River Delta is 18-20%, and the vegetables and fruits crop is 20%.
6. *The production relationship needs to be continually perfected in order to suit new productive forces.* Households are dominant, but they have little land, a shortage of capital, and simple and obsolete technology, so large-scale commodity production is difficult for them. Cooperatives were renewed but are still biased towards formality. State-owned agricultural and forest enterprises have changed significantly but their efficiency is low. A family-style farming model emerged and has expanded rapidly, but it is still too small in number.
7. *Income, living standards, cultural knowledge, and intellectual standards in rural communities are generally low, even very low in some places. The proportion of poverty is high and is an urgent problem in some places. The income gap between rural and urban areas is increasing.* In the countryside, income and living standards are generally low, very low in some regions, especially in mountainous and remote areas. According to a survey conducted by the General Statistics Office, the gap was 2.6 times in 1996; 2.7 times in 1997; and in big cities it was 3.2 times and 3.5 times, respectively. According to a survey by the World Bank, the gap was 5 times in 1990, 8 times in 1997. At the village level, most of the cadres have not been trained; in the mountains they even are illiterate.
8. *The environment is polluted in some regions. Forest land, land for industrial crops and*

*ocean resources are not fully assessed. Lack of investment capital leads to a great limitation to agricultural and rural development.* Forests are still being destroyed. Many handicraft villages, water sources, and rivers are polluted. Using exterminating means for fishing continually exhausts ocean resources. In many master plans, much land set aside for forest and industrial crops, but during the implementation process, the actual amount of land utilized is insufficient. Sea resources are not fully assessed, so efficiency of offshore fishing is low. Lack of investment capital will be a great limitation to development in the coming years.

**For rice production, there are some existing problems:**

- Production is still at the whim of nature. One of the reasons is that although importance has been attached to investment in irrigation, it is still lower than what is needed because both the State and the people are poor, therefore it is not able to mitigate natural calamities. Therefore droughts, floods, and salt incursion occurs regularly.
- Output and input prices of rice depend on international markets and prices because most fertilizers and insecticides have to be imported and Viet Nam is a rice export country.
- The average yield of paddies is low, just about 4 ton/ha/crop. It is equal to about 60% of that of Japan, Korea, and China. It is necessary but difficult to raise the paddy yield in the coming years because in many regions of the Mekong and the Red River Deltas the yield has already reached 10-12 ton/ha/year, and it is very difficult to raise it further. In the Northern Midlands and Mountains, the Central Highland and Northern Central Coast, the yield is low but it will be difficult to raise it further in these areas as well because of bad land and large investment in irrigation.
- Post-harvest losses are high because machines, equipment, storage facilities and technology for preservation are backward. Post-harvest losses are about 13-16%, during preservation and husking period the annual loss is about 7.2-9% equivalent to 2.5-3 million tons of paddy production. If post-harvest losses are reduced by 3-5% per year, output of food will increase significantly.
- There are some limitations in the system for storage, processing, and selling rice. Rice export is still distributed in line with planned quotas and export mediators, mainly State-owned enterprises. That fact could limit competitiveness of Vietnamese rice.
- Land is limited and dispersed (each household has an average of 8-10 pieces of land) which is inconvenient for intensive farming and mechanization of agricultural production. Manual labor still accounts for a high proportion of total production costs (30-40%).
- In connection with rice seed; the annual need is about 1.1 million tons of paddy seed; but currently Provincial Seed Companies only meet 2.6% and Central Seed Companies meet about 4-8% of the demand. Most seed (about 90%) is produced by the people themselves. Quantity and quality of seed does not meet the requirements for production. Equipment for seed production is lacking or obsolete.

### III. Some Policy Directions

#### 1. Land

Viet Nam is currently studying possible amendments to the Land Law based on the following ideas and experiences:

- There is a need to reconsider the appropriate terms of land use to ensure that land is available for producers while also encouraging large-scale accumulation of land under certain possible conditions.
- With the transfer of land use rights, land accumulation is an obvious consequence in the developmental process. However, this accumulation needs to be managed by the State and has to suit the general level of national development. It cannot be allowed to occur spontaneously, because if it does, it will result in numerous poor people losing their land and being worse off.
- Provide various opportunities for farmers with the aspiration and ability to obtain productive land.
- By the year 2000, aim to complete the allocation of land to farmers and give them land use certificates.
- Encourage farmers to transfer arable land in order to reduce fragmentation, which is unsuitable for production and mechanization. Currently there are 100 million separate agricultural land holdings and many households have 6-8 holdings, and some have up to 20 holdings, of land.
- Sum up the implementation of the 1993 Land Law and, from that basis, prepare a comprehensively modified Land Law at a later date.

#### 2. Rural credit

Viet Nam has accomplished a great success in building a rural credit system, and in doing so it has significantly improved the credit supply situation for farmers. However, formal loans only meet about 50% of the demand of farmers. Many households are still not able to access formal credit organizations for obtaining loans, but rather sometimes borrow from informal sources at high interest rates. (Some people borrow at very high interest rates, rarely for agricultural production but mainly for consumption or very short-term business needs). Approaches to improving this situation in the coming years are:

- Increase the available source of funds of formal credit institutions in rural areas so that farming households are able to borrow from these institutions.
- Increase medium-term and long-term loans.
- Eliminate the discrimination in providing credit to state and non-state borrowers. The government is currently trying to provide credit to all economic sectors with the only

condition being profitable production (for example, credit for industrial crop plantations and offshore fishing).

- Issue reasonable interest rate policies in order to encourage deposit mobilization and lending.
- Gradually reduce preferential loans so that financial resources will be allocated to highly profitable fields
- Simplify lending procedures.
- Even though there are currently some different opinions about the Bank for the Poor, this bank can exist only if there are poor people to serve. When the target of eliminating poverty is fulfilled, the bank have to change its goals and operating mechanisms.

### **3. Develop and apply scientific technology**

Priority should be given to developing and applying scientific technology to plant breeding such as seed selection, domestic hybridizing and seed importing.

To encourage seed producing stations to make joint ventures with foreign partners to produce high-quality crop seeds that are suitable for Viet Nam's conditions.

To research, manufacture, import, and disseminate advanced machines and equipment in order to improve efficiency in such areas as drying, preserving, and processing of agricultural products, and consequently, to reduce post-harvest losses and to maintain and increase product quality. Researches should also be focused on advance farming techniques relating to such fields as veterinary science, plant protection, irrigation, mechanization, excavation and other earthwork.

To strengthen the agricultural extension system so that it reaches every commune and village that will introduce advanced production methods to farmers, especially in mountainous and remote areas.

Advanced technology should be applied to protect the agricultural and rural ecological environment.

To consolidate research centres and to train qualified personnel who can master current advanced technologies. There should be policies rewarding and honoring scientists who have contributed important achievements and inventions to the agricultural sector.

### **4. Policies for economic sectors**

*The household economy* is considered to be the main form of agricultural and rural economy at present and in the future.

*Cooperative economy.* There is a need to review and evaluate the development situation of the cooperative economy and the implementation of the Cooperative Law in order to direct and expand this type of economy with the tendency toward diversification, based on the free



will of farmers and the support of the Government. Cooperatives that operate reasonably well are helped (through arrangements of capital, assets, lending and debt provision, extension, training and other services, etc.) to change into new cooperative types. Those cooperatives that are currently performing poorly, and which have ever been supported but are likely not to be rehabilitated, can be dissolved if the members agree. If this happens, members should be guided so as to be able to establish more suitable forms of cooperatives. As a part of this process, cooperative staff members will be provided with further training.

*Strengthen the role of the State economy* in agriculture and rural areas so that it can take a leading role. The State sector should focus on such fields as production planning, irrigation investment, rural infrastructure, capital aid, science and technology, training, development of processing, and doing the business of import and export commodities, particularly paying attention to mountainous and remote areas.

*Renew State-owned agricultural enterprises.* It is necessary to enhance the efficiency of these enterprises by directing the contracting out of land, long-term crops and livestock to farmers and local residents for the long term. The lands that these enterprises do not use or use inefficiently should be given to local authorities to allocate to households. State-owned agricultural enterprises should concentrate on input and output services, technology transfer, and processing.

*Renew State-owned forest enterprises:* The functions of these enterprises need to be more clearly defined for each type. For those managing protected forests or special forests, reform should take place so that, a management board will be put in place and that will operate with its state budget allocation. Most of the economic forests (except natural forest) should be allocated to worker households and local people under contract to manage the forests as a business. State-owned forest enterprises would then mainly focus on input and output services, technologies, marketing, and processing.

*Private economy:* The private economy should be stimulated to invest in mountainous, midlands and coastal regions, to do business in barren and uncultivated land, to develop professions and rural services, processing, and livestock, and to build infrastructure. For some agricultural activities, pilot joint ventures could be made with the State at several locations.

*Family-style farming economy:* This is one type of household economy which can be highly developed in terms of area scale, invested capital, technical skills, new knowledge, management, more intensive farming, mechanization, the range of commodities, and profit. It is a form of advanced and efficient production in agriculture. This type will be the main force to promote rural industrialization. The government will continue to study suitable policies to encourage the development of the household economy and to limit disparities between it and other sectors of the rural economy.

In the past, Viet Nam seemed to give priority to state-owned enterprises, creating some inequalities between state enterprises and non-state enterprises. This occurred particularly

in the fields of credit, financial management and import-exports. However, it comes from the fact that individuals in Viet Nam still had little capital to invest and did not have much business experience. Therefore, at first, state-owned enterprises had to be built as the basis for development. More recently it can be seen that individuals are increasingly able to manage, so the State has issued a number of policies to encourage the greater involvement of individuals.

## 5. Upgrade and complete market policies

### Domestic market

Eliminating completely all of constraints that obstruct the movement and availability of products and materials in domestic markets. The Government will develop market information systems, strengthen controls over the quality of goods, be active in resisting smuggling and the production of counterfeit goods, and stimulate competition among economic sectors. To do these, there is a need to attach more importance to the domestic market, which is considered an important place for selling agricultural and industrial products, and for its linkage to the international market.

Strengthening important State commercial organizations that are necessary in rural areas. Diversify cooperative forms between the State and other economic sectors. Minimize the effects of floating (un-controlled) rural markets, which cause losses for farmers.

### Foreign market

Encourage and create favorable conditions for all sectoral economic enterprises to look for markets and to export agricultural, forest and fisheries products. Reduce taxes or give better access to loans from State-assistance funds for those enterprises that can export their products well. Rice export quotas need to be flexibly reviewed to ensure stable food supplies and domestic prices, without obstructing enterprises ability to earn high profit. Gradually changing to employ the mechanism of taxation management while maintaining reserves for food security is a better strategy than employing commercial restrictions.

The focus is on measures for enhancing competitiveness of agricultural, forestry and fisheries products. Assistance should be strongly given to enterprises that actively seek and penetrate new markets. Enterprises should pursue expansion of Asian and EU markets, overcome setbacks and then restore a share in Russian and Eastern European markets and then gradually penetrate the American market.

Employ a flexibly managed mechanism of importing agricultural, forestry and fishery materials in order to support domestic production without allowing domestic prices to increase too much in comparison to the international prices so that competitiveness of the products would be improved.

Be ready to carry out those commitments to commercial liberalization according to the

agreements under AFTA, APEC and WTO. While striving to exploit opportunities in international markets, it is also necessary to protect domestic production.

## **6. Strengthen the State's managing system in rural areas**

In general, the State's managing systems for agricultural-forestry-fishery production at the central and the provincial levels are systematically organized, but the ones at the district and commune levels are not so well developed. There are still some shortcomings in the systems, such as the State's management functions for agricultural and rural development being not well defined and the system's confusion regarding both guiding and implementing policies, especially in coordinating with other agencies involved. In the system of forest protection, staffs at provincial, district and commune levels are few in number and lack skills and knowledge, especially in mountainous and remote regions. So we need:

- To strengthen the system of forest protection by forming a task force for the movement of nation-wide forest protection.
- To supplement staffs at provincial departments of agriculture and rural development as well as district offices. Each commune should choose one cadre, at least, who is responsible for agriculture-forest-fishery activities. He or she should be a vice chairperson or a member of the People's Committee.
- To train State management staff members on agriculture and rural development, especially, those at the district and commune levels.

## **IV. Some Issues Need to be Researched in Phase 3**

Some issues researched in phase 3 should be combined with the formulation of 2001-2005 plan. Based on that, some issues are raised as follows:

### **1. Identify the growth rate of agriculture: how much is suitable ?**

- In the 5-year 1996-2000 plan, the growth rate of agricultural production is estimated at 4.58%, of which agriculture is 4.53%, forestry 2.17%, and fisheries 5.74% (food crops 3.7%, industrial crops 9.83%, coffee 15.6%, rubber 14.3%).
- In the 5-year 2001-2005 plan, there are two scenarios regarding the growth rate:
  - + The low scenario: The growth rate is planned to be 4.0%, of which agriculture is 3.7%, forestry 2.2%, and fisheries 6.0%, (food 1.8%, industrial crops 6.5%, coffee only increases 5.9%, rubber 9.6%). According to this scenario, by the year 2005 output of food will increase by 3 million tons compared to the year 2000; the average increase is 600,000 tons per year.
  - + The high scenario: The growth rate is planned to be 4.8%, of which agriculture is 4.4%, forestry 2.5%, and fisheries 7.0% (food 2.3%, industrial crops 7.0%, coffee 7%, rubber

10.8%). In this scenario, by the year 2005 output of food will increase by 4 million tons compared to the year 2000; the average increase is 800,000 tons per year.

Comparing the two scenarios, the former is quite realistic, however, the latter is quite high, and will require active measures to implement.

## 2. Increase farmers' income

In the two scenarios (in which the growth rate is 4-4.8% per year) by the year 2005 farmers' income will only rise 1.17-1.22 times compared to the year 2000. This is equal to the increase of the year 2000 compared to the year 1995. The question is whether this increase is reasonable or not, and is it necessary to induce a large increase? If it is necessary to increase more, it should be done by two ways:

- Increase the value of agricultural products. This means that the growth rate of agricultural-fisheries-forestry production must be higher than 4.8%.
- "Push" labor and population out of agricultural production. This means the development of non-agricultural jobs.

Neither way is easy.

## 3. Deal with the problems of selling products and competitiveness

- Vietnamese Products can be divided into 3 main groups:
  - + High-competitiveness group (rice, coffee, tea, cashew nut, rubber)
  - + Lower-competitiveness group which needs to be supported (vegetables, fruits, meat, other processed foodstuff)
  - + Less-competitiveness group (sugarcane)
- It is possible to develop some products, especially fruits area in the mountainous regions in order to alleviate hunger and reduce poverty, but markets for the products are limited.
- How should we solve the problem of selling and enhancing competitiveness of agricultural products?

## 4. Export agricultural products

In 1998, the agricultural sector exported USD 3.783 billion, in the year 2000 it is estimated that it will reach USD 4 billion; the average growth rate is 9.7% per year. By the year 2005, the export turnover of the whole sector is estimated to be USD 6.5-7.5 billion; the average growth rate is estimated to be about 8.3-11.5% per year during the 2001-2005 period. The increase of exports in the five coming years is also approximately equal to the figure of the past 5 years, of which:

- Rice exported is stable at about 4 million tons (it could reach 4.5 million tons).
- Fisheries: increase in exports is high, with the average increase being USD 200 million

per year (15% per year).

- There will be a trend toward decreasing growth of coffee output compared to the past 5 years.

Is it possible to increase exports of agricultural products or not? How do we solve this problem?

## 5. Rural infrastructure

In general, rural infrastructure is not well developed. There are still more than 600 communes which do not have roads to their centres. About one fourth of the population does not have televisions and 10% does not have radios. In many regions people are not within the broadcast range of Viet Nam Television and the National Radio, namely the Voice of Viet Nam. Under such conditions, it is very difficult to improve people's intellectual standards and to guide production. In the five coming years, these situations need to be improved.

## 6. Education, training

In several places, educational and training units are very weak, especially in the mountains, including semi-boarding and boarding schools. Children are the future of a country; the people's intellectual standard is an important condition for poverty reduction. In the five coming years, it must be ensured that all schools and classes are built to least at the minimum standard that can be acceptable.

## 7. Concerning forestry, barren hills and land, fixed cultivation and resettlement

Two thirds of Viet Nam's total area is forestland, however actual forest area is rather small, and the forest covering ratio is low. For nearly past ten years, the State has annually spent hundreds of billion VND in planting and protecting forest, and as a result this ratio has increased significantly. However, there are some shortcomings:

- Forests are still being destroyed. The State has spent a lot of money but people who live in forest regions are still poor.
- Shifting cultivation is still commonly practiced. Despite carrying out the program of fixed cultivation and resettlement for nearly 40 years, by the year 2000 it is estimated that only about 50% of people will be settled. The practice of "slash and burn" for cultivation is still popular, especially in the Northern Mountains.
- The question is how can the State spend less money but maintain forests while improving the living standards of the people is better. It is not only an economic issue but also environmental and resource protection issue which will affect future generations.



## New Directions of Agricultural and Rural Development in Viet Nam

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### 1. Introduction

#### 1) Background of Study

The studies of Phase 1 and 2 focusing on important aspects with a view to developing the agriculture and rural sector in Viet Nam gave rise to many useful results. One point to be born in mind is that the Phase 1 and Phase 2 studies were conducted separately for each of the aspects selected, so that the interrelations between the aspects were not much examined, and the studies did not have a comprehensive view in analyzing the present status of the agriculture and rural sector. This follow-up study was started with a view to understanding the agriculture comprehensively while giving deeper considerations to the interrelations between the aspects that were addressed in the Phase 1 and Phase 2 studies.

However, since we were afraid that such comprehensive studies, if conducted evenly for all agricultural products may cause us to lose the heart of the matter, we decided to focus on only the rice economy that is the main agricultural industry in Viet Nam. Hence, in short, the follow-up study is to analyze the whole reproduction process of rice economy assuming that rice economy represents Vietnamese agriculture and rural economy.

To totally understand the rice economy, what we should do first is to identify the present state of the rice economy from the long-term point of view. This first process of the study should include analyzing the food production and consumption, and defining the rice economy in the context of the development process of the overall economy. Second, we should know the chain consisting of resources, production, distribution and consumption (domestic demand and export), and analyze these segments while giving due considerations to the interrelations between the segments. Third, discussions should focus on the role of the governmental policies and systems that support the agricultural industry and rural sector.

Based on the above mentioned principles, we determined the list of items to be studied, and proposed it to the Vietnamese side. It agreed with our principles that the reproduction process of the rice economy should be understood comprehensively. The list was finalized through adding some items requested by the Viet Nam side.

Shown below is the final list of study items. This includes two additional study items selected based on the request from the Viet Nam side:3-3). Landless and land lacking households in Mekong Delta Areas, and 6. Food Security problem. These two items are the

matter of concern at present that may substantially affect the directions in the development of the agricultural and rural sector. The Vietnamese government is required to decide how to treat these problems.

**Box The Final List of Research Issues Concerning Agriculture and Rural Development in Viet Nam with a Special Focus on Rice Economy**

**1. Present Stage of Rice Economy in Viet Nam**

- 1) Trend of rice production (changes in planted area, land productivity, changes in rice production by area, adoption of new variety, etc.)
- 2) Trend of rice consumption in Viet Nam (including estimation of demand function of rice in Viet Nam)
- 3) Competitiveness of Vietnamese rice in international rice market (including future perspective of international rice market)

**2. Input Suppliers**

- 1) Problems of import restriction of fertilizer (including the performance of fertilizersupplying SOEs)
- 2) Problems of pesticide and seed supply (including the analysis of SOEs supplying pesticide and seed)
- 3) Water supply problems (including irrigation maintenance system)

**3. Structure of Rice Production**

- 1) Trend of producer price of rice
- 2) Cost of rice production and incomes of rice growing farmers (by area, by farmingsize, by ecological and sub-ecological region, etc.)
- 3) Future of rice economy in Viet Nam (including bipolarization in the Mekong DeltaAreas)

**4. Post-Harvest Problems and Distribution System of Rice in Viet Nam**

- 1) Post-harvest problems
- 2) Problems of transportation and storage
- 3) Problems of rice processing
- 4) SOEs in the distribution system of rice

**5. Agriculture Supporting Institutions**

- 1) Research and extension system
- 2) Rural finance including credit disbursement to agriculture-related SOEs)
- 3) Roles of agricultural cooperatives

**6. National Food Security and Rice Policies in Viet Nam**

- 1) Rice price policy
- 2) Rice trade policy (including rice export quota)
- 3) Land policy



However, this follow-up study could not cover all the items listed, since the financial and human resources were limited in this study. The study addressed only urgent matters: 1. present state of rice economy, 2. structure of rice production (including the analysis of the bipolarization being occurred in the Mekong Delta Areas), 3. post-harvest problems and distribution system of rice in Viet Nam, 4. agricultural supporting institutions. Issues relating to input suppliers and policy matters were not included in our study. These should be studied in the future.

## **2) Objectives of This Report**

The task of this report is to summarize the results of the studies on agricultural and rural development in the follow-up project. However, there is a summary report collaborated by the chief of the Viet Nam side. This report should therefore provide more detailed discussions referring to various reports from the Viet Nam side, Mekong Delta survey reports, and reports of Can Toh University (CTU). More specifically, this report discusses the present state and future directions, of the agricultural production, mainly of rice production, structure of production cost of rice, income levels of rice farmers, rice export, distribution system of rice, post-harvest problems, problems of landless and lack of land households in the Mekong Delta Areas, rural financial institutions, and agricultural cooperatives. These discussions are done through economic analysis, and sometimes by referring to Japanese experiences. The final chapter of the report includes policy recommendations on the new directions of the agriculture and rural sector in Viet Nam. These recommendations may not cover all aspects due to some limitations on available resources. This study was started with the aim of making a link between the past two large-size projects and future research projects. Hence, even if all the problems listed at the beginning of the project could not have been addressed to the depth as expected, this project should not be considered unsatisfactory. The main goal of this project is to define what should be addressed in the future projects.

## **2. Present State of Rice Economy**

### **1) Rice Production**

Since the Doi Moi policy, the agricultural production has been developing almost steadily (Cuc[1], Minh[2]). It has been growing at 5.2% per annum for the last 10 years. This growth rate is larger by 1.6% than the largest growth rate (3.6% in 1955 to 1965) recorded in Japan in the last hundred years. The growth of the agricultural industry in Viet Nam in the 1990s is remarkable.

The main contributor for this growth is the increase in the production of rice<sup>1</sup>. As in Table 1, the rice production of about 19.2 million tons (paddy) in 1990 increased 1.5 times to 29.1

million tons in 1998. This increase corresponds to an annual growth of 5.3% that is similar to the above mentioned growth of the overall agricultural industry.

Increase of rice production can be decomposed into the increase in planted areas and the increase of land productivity. During 1990 to 1998, the planted area increased 1.2 times from 6.02 million ha to 7.36 million ha. The land productivity per hectare increased from 3.2 tons to 4.0 tons in the same period. Contribution of the increase in planted area and that of land productivity to the increase in total production is calculated as about 48% and 52%, respectively.

Planted area is increased by extending fields and/or raising the intensity of land use. During the period from 1990 to 1997, the total planted areas increased at annual rate of 2.6% from 6.93 million ha to 8.27 million ha, while the paddy fields increased only by 0.08 million ha from 4.11 million ha to 4.19 million ha. This means that the increase in rice planted area was attributable to more intensive use of paddy field.

On the other hand, the increase in yield was attributable mainly to the introduction of high yielding varieties. As indicated in the table, the diffusion rate of new varieties was only 48% in 1990, while the rate rose to 87% in 1998. Especially, Hybrid Rice from China significantly contributed to the increase in yield per hectare. Of course, this increase in land productivity was accompanied by the increase in the use of fertilizers, causing some environmental problems as discussed later. It should be noted that the production per area in 1998 is already higher than that in Thailand or the Philippines. Further significant improvement is therefore unlikely expected.

The increase in the production of rice varied area by area. The largest increase in production was recorded in the Mekong Delta Areas. As of 1990, the rice production in the Mekong Delta accounted for 49% of the total production in the country, though it now accounts for 53%, larger by 4% compared to the 1990 level. The share of rice production in the Red River Zone has been unchanged at about 19% since 1990.

The most essential factor for the increase in rice production was the Doi Moi reform that liberated economic incentives of farmers so that they could have a stronger will to produce more rice. However, there was another factor why the rice production increased. The economic conditions during the period were favorable for rice production. Table 2 shows the statistics on the price of rice (farm gate price) and fertilizer. In this table, the relative price of rice to that of fertilizer has been increasing as a whole, though there were some short term fluctuations. This allowed farmers to use more fertilizers, which resulted in the increase in production. On the other hand, the wage index of rice production grew less than the selling price of rice. This may imply the existence of excess labor in rural areas (more detailed analysis may be required). It is worth mentioning that as a result of the drastic increase in the use of chemical fertilizer and pesticide, environmental problems are now arising. Some

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<sup>1</sup> Production of other agricultural products has also been increasing. According to Government reports to CG Conference, the production of tea, coffee, rubber, pork and chicken increased 1.5 times, 20 times, 3.5 times, 1.5 times and 1.7 times respectively in the comparison between 1987 and 1997.

researchers warn the future sustainability of Vietnamese agriculture<sup>2</sup>.

## 2) Structure of Cost of Rice Production

Before discussing about the structure of cost of rice production, it is worth noting the area-by-area price differences in Viet Nam. Tables 3-1 and 3-2 show the rice price (unit price of rice, i.e., the difference in quality is not taken into account) at various areas during the period from 1990 to 1998. These tables indicate that the rice price significantly varies depending on the area, and the price differences had been reduced till 1995, but then increased gradually. As of 1990, the area that showed the highest price index of 105, assuming that the national average is 100, was the North-East-South, while the Mekong Delta Areas showed the lowest price index of 91, about 14% lower than the highest. In 1995, the price differences were reduced. The price index of the Mekong Delta and the Red River Delta showed 96 and 102, respectively. However, in 1998, the differences enlarged. The largest difference was 23% between the Mekong Delta (89) and the North-East-South (112). The Red River Delta Zone showed about the same level as the national average in 1990, though it raised to 110 in 1998, 10% higher than the national average.

Main factors for this price difference include the difference in quality, production cost structure among areas, and the difference in the characteristics of distribution systems. Price difference among areas should normally become smaller with the market integration from small local markets to nation-wide market, though this is not the case in Viet Nam. We should further investigate the reasons for this enlargement, including the quality of data and effects of rice smuggling.

Table 4 shows the production cost per one ha for winter-spring and summer-autumn rice crops in the Red River Delta and the Mekong River Delta in 1996. Note that there are some problems in calculating production costs, e.g. as to whether to include interest payable (or interest of self-owned capital) in the production cost, and how to treat agricultural taxes and labor cost (especially cost of family-labor). It is necessary to have discussions with Vietnamese experts to clarify how to treat these points in the calculation of production cost. The following discussions are subject to uncertainty with respect to the treatment of these problems.

In 1996, the Red River Delta Areas recorded the material cost of 4.18 million dong for winter-spring crops. The largest item of the material cost was the cost for fertilizers (25%). The second-largest item was the cost for purchasing seeds (0.57 million dong). The amount of total cost, including labor cost, taxes and interest payable were 7.45 million dong, which accounted for 58% of earnings. Assuming that the income includes the cost for family labors,

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<sup>2</sup> Many researchers warn of overuse of agricultural pesticides and fertilizers that may lead to the reduction of fishery resources, safety of agricultural products, and degradation of land fertility in the Mekong Delta area. There are already some farmers who are using only organic fertilizers.

the total income per hectare was 7.58 million dong, which corresponds to an income rate (percentage of net income to total revenue) of 59%.

Same calculations for winter-spring crops in the Mekong Delta Areas indicated the material cost of 3.47 million dong, 17% smaller than that for the Red River Delta Zone. The fertilizer cost accounted for 24% of the total cost, which is about the same level as in the Red River Delta. The absolute value of the fertilizer cost was smaller by more than 30% than that for the Red River Delta Zone. The total cost was 5.59 million dong, which was smaller by 1.86 million dong (by 25%) compared to that for the Red River Delta Zone. It should be noted that the cost includes as large as 0.16 million dong of interest payable. By contrast, the interest payable for the Red River Delta Zone was very small. However, it does not include the interest payable for self-owned capital. If including these items, the production cost for the Red River Delta Areas will be larger.

For the Mekong Delta Areas, the production cost accounted for 62% of revenue, larger than that for the Red River Delta Zone. Calculating the income assuming that the cost of family labors are included in the income, the income per hectare was 4.39 million dong, which corresponds to an income rate of 49%.

The production cost for summer-autumn crops was normally smaller than that for winter-spring crops. The production cost for summer-autumn crops in the Red River Delta was 6.28 million dong, while that in the Mekong Delta was 5.23 million dong. The yield in the Mekong Delta was also smaller. The income rate for the Red River and Mekong River Delta Zones was 57% and 31%, respectively.

As a whole, the production cost for the Red River Delta was about 30% larger than that for the Mekong Delta, while the earnings were larger by 45 to 50%. The difference in earnings depends mainly on the difference in selling price in addition to the difference in yield (about 8% larger than Mekong Delta). As seen in the table, the average selling price differs by 30% for winter-springs crops and 50% for summer-autumn crops between the two delta zones<sup>3</sup>.

The difference in the profitability of rice production per hectare as shown above cannot show the difference in the income of individual rice producers. The production cost and profitability indicated above refer to the values per hectare. The actual income must be calculated by multiplying by the planted area (ha) of the farmer. Assuming that the average paddy field per family in the Red River and Mekong River Delta is 0.3 ha and 1.2 ha respectively, the income by double-cropping is 3.99 million dong and 7.25 million dong respectively. Farmers

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<sup>3</sup> The structure of production cost, especially the relationship of production cost per hectare with selling price in the Mekong Delta is summarized in Table 4-2. This table indicates that production cost becomes larger but selling price becomes lower with a larger harvest. Such big difference in selling price in the same region at the same moment can be justified only by the difference in product quality. In the Mekong Delta, many farmers are applying hybrid rice that has a lower quality but enables higher production. This is the reason why the selling price has gone down with larger volume of production. This indicates that increasing the harvest does not necessarily mean the increase in profits, since larger harvest may lead to the increase in cost and reduction in selling price.

in the Mekong Delta can gain income larger by 80%<sup>4</sup>.

Let us see the change in income of rice farmers. Discussions on this subject require more detailed statistics for each region. Since the available information is very limited, our discussions are subject to ambiguity, though the following two points are believed to be accurate.

First, according to the analyses of the production cost as shown above, rice production can gain a certain amount of profits. Calculating the profitability using the price level in 1996, the rice production is profitable in both of the two delta zones even in case the wages of family workers are included in the production cost. The income rate as calculated above is an acceptable level.

Second, considering the facts that the selling price of rice has been rising as a trend, that productivity has been improved steadily, and that the planted areas have been expanded constantly, it is quite plausible that the income of rice farmers has been increasing.

However, the following points with respect to the income of rice farmers should be remarked. First, the rise in the average price of agricultural products has been lower than that of the consumer price. Compared to the price level (100) in 1990, the average price index of consumer goods in 1998 is 282, while that of agricultural products is 241. The average price index of all foods is 312, though that of processed foods is 359, the highest among food categories. This implies that the food processing industry benefited more than farmers. Farmers have received lesser amount of payments than any producers in other industries. This means that even though the income of farmers has been improved, it is still lower than that of other sectors.

Second, the income from rice cropping normally accounts for a smaller portion of the total income of farmers, though the proportion depends on the region. The survey conducted in the Phase 2 clarified that the percentage of rice to the total production per farmer is 55% on average, though it significantly differs depending on the region (appendix of [11]). The income cannot be much raised by the improvement in rice cropping. It is thus necessary to seek another way for improving the incomes of farmers.

The profitability and income from rice cropping heavily depends on the price level of rice. The return to rice monoculture in recent years (Cuc[1]) is likely attributable to the relatively favorable level of rice price. The future of the rice economy depends on the market price of rice that may be affected by international rice markets.

### 3) Rice Export

Rice export has been increasing steadily from 1.62 million tons in 1990 to 3.80 million tons

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<sup>4</sup> Triple-cropping is prevailing in the Mekong Delta. This implies that the difference in income may further enlarge. However, farmers in the Red River Delta are cropping rice twice and one additional product, such as vegetables, in a year. The total agricultural income should therefore be compared between three rice harvests in the Mekong Delta and two rice harvest plus one in the Red River Delta Zone.

in 1998 (Table 5). The value of rice export has increased by 3.7 times from US 0.3 billion in 1990 to USD 1.1 billion. Major importers are the Philippines, Indonesia, Middle East countries and African countries.

It is interesting that the difference in export price between Vietnamese and Thai rice has been decreasing. In 1990, the FOB price of Thai rice was USD271 per ton, while that of Vietnamese rice was USD170 per ton. The difference in export price was about USD100 per ton. The difference reflected the difference in product quality and marketing power in international markets. Then, the price difference has shrunk significantly. In 1995, the difference was USD54 per ton. The price of Thai rice was USD320 per ton, while that of Vietnamese rice was USD266 per ton. In 1997, the difference shrunk to USD41 per ton. The price of Thai rice was USD293 per ton, while that of Vietnamese rice was USD252 per ton.

With respect to the quality of Vietnamese rice for export, the high-grade rice, namely, rice of 5%-broken and 10%-broken, accounted for about 14% of the total export in 1990. But, the percentage of high-grade rice increased to 44% in 1997. The low-grade rice, containing over 25% of broken rice, significantly decreased from 56% in 1990 to 12% in 1997.

The improvement in quality is likely attributable to the investments for the transportation, storage and processing, although they are yet to be fully improved. Our surveys in Can Toh province found that the Government is financially supporting the construction of drying machines and other rice processing facilities. We confirmed that the Government has started full-scale projects for improving the distribution and processing systems<sup>5</sup>.

#### 4) Emphasizing Food Security

The recent governmental attitudes regarding the production and export of rice are expressed as excessive emphasis of national food security. The following two points highlight the importance of this issue in Viet Nam.

First, the concept of food security in Viet Nam can be explained by using food balance sheet. The per capita supply of food is calculated as follows.

Total volume of domestic supply of rice = Total production - Post harvest losses - Export - Storage - Seeds - Livestock feed

Per capita supply of rice = total volume of domestic supply of rice (in terms of paddy) x conversion rate from paddy to milled rice / Population

The post harvest losses are 13 to 16% on the average throughout the country. The export volume includes the estimated volume of smuggling. The conversion rate is 65 to 68% on the

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<sup>5</sup> Our surveys on the Mekong Delta (March 1999) confirmed that financial supports by the Government include projects for constructing a drying facility, rice center (since June 1999) and rice milling facility (Danida project, gratuitous aids by the Danish Government).

average throughout the country. The priority defined by the food strategies is expressed in the order of domestic supply, livestock feed, seeds, storage, and export, from the highest. The national food security in Viet Nam is characterized by the lowest priority given to export<sup>6</sup>.

Food Balance Sheets are constructed for each of eight regions. For each region, a standard per capita supply of rice has been defined. For example, regions of non-agricultural zones are assigned a standard supply of 230 kg, while those of agricultural zones are assigned 300 kg. If the production exceeds the volume, the surplus will be exported<sup>7</sup>.

Second, in 1998, the actual export was reduced from the planned volume for the reason of national food security. The 1998 government plan had estimated 28 million tons (paddy) of total production of rice, and planned 4 million tons of export. These volumes correspond to rice production of 397 kg per person of which 85 kg was intended for export. However, the actual production in the former half of the year was smaller than expected by 0.7 to 0.9 million tons due to the draught. Even though the foreign markets were favorable for exporters because of the political instability in Indonesia, Prime Minister Phan Van Khai decided to suspend the export of rice temporarily in April for fear that the domestic market price of rice would rise due to the shortage of supply if the export were implemented as planned.

These two points express the current food security strategies characterized by the principle that it is the most important to satisfy the domestic demand. It is understandable that the food security is a matter of paramount importance to maintain the nation. Vietnamese people experienced hunger in 1980s. But, we feel that this strategy - giving the highest priority to domestic demand, and surplus may be used for export - may not be appropriate when playing in the market oriented economy. In order to obtain the confidence as an exporter in the international markets it is not appropriate to overemphasize the importance of national food security<sup>8</sup>.

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<sup>6</sup> According to experts of MARD, and Agricultural Office of the Ministry of Investments and Planning, methods for estimating the required capacity of storage and livestock feed are not available to us.

<sup>7</sup> Food security concepts vary depending on localities. Generally speaking, the food security policies are intended for the north and middle regions where food shortage and instability in agricultural production are matter of concern. This is unlikely the case for the Mekong Delta Areas. The agriculture in Viet Nam can be expressed with the mixture of subsistent farming and commercial farming. Hence, it is inappropriate to apply a single agricultural strategy throughout the country. MARD is going to introduce separate agricultural policies for each of the seven regions, and this principle is suitable for agro-ecological diversity in Viet Nam.

<sup>8</sup> Vietnamese officials in charge of agricultural issues never omit discussions on national food security when talking about agricultural policies. October 1998, the Government established the National Food Security Committee that is responsible for creating a program for ensuring food security.

### 3. Distribution of Rice and Post-Harvest Problems

#### 1) Distribution of Rice

Since the Doi Moi reform, distribution systems of rice have been significantly liberalized. At present no restrictions exist on the domestic distribution of rice. Hence, as far as domestic distribution of rice is concerned, the present distribution systems are characterized by free competitions with many participants, such as SOEs (State-Owned Enterprises), private distributors, rice millers, and farmers.

According to the paper submitted from the Vietnamese side (Manh [5]), there are two types of state-owned food corporations: Government controlled corporations VINAFOOD I and VINAFOOD II, and local government controlled corporations. The latter, one in each Province, is in charge of distribution chains from storage to retail. However, the percentage of rice handled by SOEs to the total domestic demand has been decreasing gradually. By contrast, private companies have been increasing their handling capacity using their distribution networks connecting among cities. In rural areas, traders and small-scale rice millers are handling 95% of the total demand.

There are various marketing channels including those for local distribution, and for large-scale trading and export. Generally speaking, there are two types of distribution channels: one for minor cropping sites, and the other one for major cropping sites like the Mekong Delta Areas. The former is typical of traditional marketing channel that is a direct distribution from farmers to markets, or distribution of paddy via assemblers and wholesalers to local retail markets. The latter is a large-scale distribution system of paddy via private or public assemblers, provincial food corporation or local rice milling companies, large-scale rice millers or rice processors, and to export or wholesale and retail market.

Here it is necessary to evaluate the efficiency of distribution systems. As far as agricultural distributions in developing countries are concerned, it is sometimes true that merchants with information network can gain large profits. For example, rise in retail price may give rise to the increase in the profits of middleman, not give rise to the increase in producers income. Price reduction in the end user markets may directly lead to the decrease in the farm gate price, which results in the decrease in the income of farmers. Note that when analyzing these problems, detailed market data is necessary. At this moment, we cannot give definitive answers to this question because of the limitation of available data. However, the following information on the percentage of farmers share to the retail price is suggestive (Table 6).

The table shows the makeup of the costs and margins for domestic distribution of rice concerning the rice produced in the Mekong Delta Areas, using 1998 data. According to this table, 74% of the retail price is the earnings of farmers, while the distribution & process costs and the margins are 13.5% and 12.2%, respectively. However, it is not appropriate to



evaluate the efficiency of the distribution systems using limited data only for a single period and region, since the distribution costs and margins vary depending on the quality of goods, buyers, and market situations changing from time to time. For comparison purposes, it is helpful to cite another data on a reference document. Khiem and others [13] calculated the distribution costs and margins for rice for export as of 1995. According to this calculation, the earnings of farmer, distribution cost and margins are 66%, 24% and 9.7% of the export price, respectively. According to surveys by IFPRI ([14]), the farm gate price of rice produced in the Red River Delta Zone was 83% of the retail price, while that of rice produced in the Mekong Delta Areas was 71% of the retail price. These values are similar to those calculated in Table 6.

Judging from the figures of Table above, the costs and margins of distribution and processing are relatively small. This means that the distribution and processing systems are not inefficient. It is unlikely that merchants and distributors gain unfair profits using their monopolistic power. But, we cannot say definitely that they are efficient. Note that all the data shown above are local, not general. To evaluate the distribution systems in a comprehensive manner, it is necessary to collect more information including that for other periods.

## 2) Post-Harvest Problems

The post-harvest losses are incredibly large (Vu [4]). According to the estimation (data is for 1992-1994, somewhat outdated), these include 1.3 to 1.7% at harvesting, 1.4 to 2.1% at threshing, 1.9 to 2.1% at drying, 1.2 to 1.5% at transportation, 3.2 to 3.9% at storage and 4.0 to 5.0% at hulling, totaling 13.0 to 16.0%. If we apply the same ratio for the production of rice (29 million tons) in 1998, the losses reach 3.8 to 4.5 million tons. Hence, if the losses are reduced by 1%, 0.58 million tons of paddy can be saved. The losses are attributable to the lower quality in processing and storage facilities.

Of course, the processing and distribution facilities have been improved gradually. Hence, if calculating the losses using updated data, the ratio will be smaller. Reestimation of the losses is strongly required.

To reduce the post-harvest losses, it is necessary to correctly recognize the importance of the post-harvest problems, and then improve the processing and storage facilities. The Viet Nam side has already understood the importance of reducing the losses. The Viet Nam side report recommends that the storage and processing facilities should be operated by private sectors, and that small-scale technologies available for family- or families group-run farming should be developed. These recommendations are of importance. It is also suggested that the post-harvest processes be reevaluated in view from the development of the rural economy, i.e., for creating employment opportunities and promoting rural industrialization. This suggestion is also very meaningful.

## 4. Problems of Landless and Lack of Land Households in the Mekong River Delta

### 1) State of Landless and Lack of Land Household in the Mekong River Delta

In the Mekong Delta Areas, there is 2.82 of arable land in total area of 3.99 million ha, and the number of agricultural household is 2.35 million. The average farming size of farm household is 1.2 ha. This average farm size is about the same as that of Japanese farm household. Compared to farmers in other areas in Viet Nam, those in the Mekong Delta are greatly blest with land. The average area of farmland in the Mekong Delta is more than four times as large as that in the Red River Delta Zone.

In the Mekong Delta, farmers who do not possess farmland or who cannot possess sufficient farmland are increasing in number. According to surveys in 1994 conducted by the Vietnamese Government, the number of landless households was about 110 thousand (about 1.2% of the total number throughout the nation). In the Mekong Delta, the number of landless households (those having a farmland of less than 0.03 ha) was 12,000 in 1994 (Table 6) that accounted for as small as 0.7% of the total number in the area, and the number of farm households who were suffering from insufficient farmland (possessed a farmland of less than 0.2 ha) was 108,000 (6.2% of the total number) in the same year. However, in 1998, the number of landless households and lack of land households increased to 135,000 (5.7%) and 208,000 (8.7%) respectively (Table 7). In the Mekong Delta, the number of landless households increased by as many as about 120,000 in the last four years, and the number of lack of land households increased by about 100,000 in the same period.

Why did the number of landless households and lack of land farmers increase in the Mekong Delta (not excepting other areas though the severity of the problem differs depending on localities)? What is the nature of such farmers? How are they making a living? The Government is very sensitive to this problem, so that access to information regarding this matter is limited. Following discussion is based on the results of the surveys by National Economic University commissioned by the Government, and information obtained by our field surveys in Can Toh Province.

The surveys by National Economic University were conducted during 1997 and 1998 in cooperation with the Viet Nam Farmer Association. The survey samples were 5,471 farm households from 144 hamlets: three hamlets from each of two communes, and two communes were selected from each of 24 districts from 12 provinces in the Mekong Delta<sup>9</sup>.

According to the survey, the number of landless farmers in 1998 increased by 87% in four years from 1994. As a result, the percentage of the landless to the total number increased from 13.8% to 19.7%. The number of family members of a landless farm households was 5.0

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<sup>9</sup> We had interviews with Professor Nguyeu The Nha at National Economic University on this problem.

persons including 2.6 persons of labor on average. The minority (Kh'me) accounted for a large portion of landless farmers. Kh'me people accounted for 19.7% of the total number of landless farmers.

Many of landless farmers were hired workers (73%, according to our field surveys in Can Toh Province, most of them were hired agricultural laborers). Full-time farmers or part-time farmers who combined farming with other business are rare. Annual household income was 5.14 million on average. Monthly income per labor was 0.16 million dong on average, while that per capita was just 0.086 million dong. These figures shows that they are in extreme poverty.

The number of lack of land households increased by about 55% in the last four years. The area of farmland per farm household was 0.14 ha on average. The area is as small as 8% that of average farm household. The number of farm households owing bank loans was not so large as of 1997. However, about 41% of farm households in this category were in debt, and the amount was about 2.5 million dong on average. Note that the percentage of farm households owing debts to the total number in each province significantly varies depending on localities. About half of debts were from government banks. Annual income per households was 5.98 million dong on average that is higher than that of the landless. Income by farming accounted for about 24% of the total income, while that by business accounted for 9%, and others for 56%. Many of farmers in this category are self-employed for farming with external job as an employee.

For information, the other category, i.e. farmers possessing farmland of over 0.2 ha (13% of them possessing less than 1 ha, 44% possessing 1 to 3 ha and 43% possessing more than 3 ha), gain income of 23.39 million dong per annum on average that is quite larger than that of poor farmers in the above mentioned two categories. However, the farmers possessing sufficient farmland are also in large debt, i.e., 4.8 million dong on average in 1997 (72% from government banks). They have many production facilities such as agricultural machines, transportation vehicles and agricultural buildings. This indicates that the debts of farmers with farmland over 0.2 ha have been used for production purposes.

## **2) Background for Appearance of Landless and Lack of Land Households**

The following six points derived from the analyses of the above mentioned survey result explain the background for the appearance of landless and lack of land households.

First, about 36% of landless farmers lost their rights to use land due to the default for debts from banks or informal financial institutions. The reasons for default include laziness, poor knowledge on farming, disease, accident, spendthrift, etc. Many of farmers in Soc Trang, Vinh Long and Can Toh Provinces lost their land for this reason. The percentage of farmers losing their land for financial reasons to the total number of land losers in each province is 51%, 42% and 43% respectively.

Second, about 24% of land losers transferred part of their land use certificates to their

children. Many of farmers in Tien Giang and Long An Provinces lost their land for this reason. This is reflecting the effect of the increase in population.

Third, 9.7% of land losers lost their land as a result of original landowners actions that took back the land that had been dispossessed through land reallocation programs in 1970s and 1980s. 28.8% of land losers in Soc Trang Province lost their land for this reason. 17.8% of land losers in An Giang province and 17% of those in Can Toh Province lost their land for this reason.

Fourth, 3.9% of land losers lost their land due to the new immigration of people. In Bac Lieu and Ca Mau Provinces, the number of farm households increased from 169 thousand in 1994 to 255 thousand in 1997 due to the immigration of poor farmers from the northern region. As a result, the total number of farm households increased in these provinces.

Fifth, some farmers returned to their original place where they became a landless farmer. In Dong Thap Muoi and Ca Mau mountains, new economic zones were established. Peoples, especially those living in dense areas, were forced to move to the zones. However, some of them returned to their original place, since the economic zones were poor in production-related and living infrastructure. In the original place, there was no farmland that they could use.

Sixth, some farmers lost their land through transferring their concession to public land-use projects, such as construction of roads and other public facilities. They were given financial compensations, but no alternative farmland was available for them.

### 3) Government Actions

All the information shown above is based on the surveys by National Economic University. The result of our interviews with Peoples Committee of Can Toh Province is almost similar with the information obtained from the surveys. However, there are some important differences between the surveys of National Economic University and those obtained from interviews.

The number of landless households in Can Toh Province was about 24,000. Of these, about 10,000 households did not originally have land.

There are two types of landless households or lack of land farm households. One type is farmers who were forced by the Land Law established in 1993 to return their land that had been distributed through Land Redistribution Programs in the 1970s and 1980s after the Viet Nam War. The Government is promoting this eviction program. This might be a confession of past wrong policies, though the Government officials do not want to publicize this matter. These farmers lost most part of their land. In Can Toh Province, about 6,200 farm households lost their land for this reason.

The other type is farmers who lost their land due to the default for debts from banks or informal financial institutions. About 2,600 farm households lost their land for this reason.

These information concerns the phenomenon in Can Toh Province, while the surveys by National Economic University covered the whole Mekong Delta Areas. It is therefore not

questionable that the numbers differ between the sources. One thing we must remark is that, in our interviews with the People's Committee of Can Toh Province, the importance of the cases that farmers lost their land due to the taking back movement of previous landlords is bigger than the cases that farmers lost their land due to their inability to repay their debts, while this is not the case in the Mekong Delta according to the surveys by National Economic University. Further investigations are necessary to verify which is true.

Anyway, from these two surveys, it is apparent that landless and lack of land households in the Mekong Delta were created by individual financial problems or the taking back movements that has been brought about from the past land redistribution policies. It should be noted that transfers of land use certificates for the former reason mean the existence of farmers who are accumulating land<sup>10</sup>. Land transactions are very active in the Mekong Delta Areas<sup>11</sup>.

However, the Government does not consider that land is tradable commodity. The Land Law provides that any farmer shall not have land of over 3 hectare. Therefore, the farmer's land accumulation over 3 hectare is done through underground transaction<sup>12</sup>.

The Government is encouraging landless and lack of land farm households to change occupations. For example, the Government is assisting them in selling their small land and making loans from banks so that they can start another business. Fund for Creating Job Program is a governmental financial aid that allows such farmers to use a very favorable loan with a monthly interest of 0.1% with a maximum repayment period of three years. The Viet Nam Bank for Agriculture and Rural Development (VBARD) and Viet Nam Bank for the Poor (VBP) undertake this special loan program using funds given to each province from the Ministry of Labor. Approval for loans is subject to submission of a detailed fund use plan for examination by the banks.

For farmers who lost their land due to financial trouble, the Government is encouraging them to buy back their land using 5-year loans from VBARD or VBP. However, this program is criticized, since it may create many bad debts<sup>13</sup>.

As mentioned before, the maximum farmland that a farmer can use is 3 hectare (this ceiling is for annual plants, the maximum area for perennial plants is 10 hectare). Recently, National

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<sup>10</sup> It is suggested that economies of scale are working in the agriculture of the Mekong Delta Areas. In recent years, agricultural mechanization is going on in the Mekong Delta Areas. This is an indication of the existence of scale economy, though further investigations are necessary to verify this.

<sup>11</sup> According to our interviews in Can Toh Province, the selling price of paddy field is 50 to 100 million dong per hectare.

<sup>12</sup> Though the farmland that a farmer can use is limited to maximum 3 hectare by law, actually there are many farmers who are using farmland of over 3 hectare.

<sup>13</sup> According to the interviews with People's Committee of Can Toh Province, the percentage of landless and lack of land farmers has been reduced by 2% in 1998 thanks to this special loan program. However, this type of loan program allowing landless farmers to buy back their farmland on credit should be implemented very carefully. Credits should be available only for creditworthy people, and such financial policies as those allowing for bad debts from the starting point should not be taken.

Diet discussed a bill for changing the maximum area from 3 ha to 5 ha, though it was voted down<sup>14</sup>.

## 5. Supporting Institutions for Agriculture and Rural Sector

### 1) Financial Institutions for Agriculture

Rural finance in Viet Nam has been growing steadily. The major financial institution for agriculture and rural areas, the Bank of Agriculture and Rural Development (VBARD, hereinafter called Bank for Agriculture) achieved a higher annual growth of the amount of disbursed loan. The growth rate of loans was 25% between 1995 and 1996, and 26% between 1996 and 1997. The amount of deposits collected in the Bank has also been increasing at about the same growth rate as lending.

However, the following problems should be thoroughly discussed and addressed, since they will substantially influence the development of agricultural and/or rural finance in Viet Nam.

The first problem concerns bad debts. The Bank for Agriculture is not suffering from arrears if we judge from the figures of newspaper. The arrears ratio to the total outstanding amount of loan was 5.4% as of the end of 1998. This figure is far smaller than the arrears ratio of 9.4%, the average of those of all national banks in Viet Nam, or 16.7%, average of those of all commercial banks in Viet Nam. According to the 1997 Annual Report of the Bank, the percentage of bad debts is 0.6%<sup>15</sup>. Another category of bad debt called frozen debt<sup>16</sup> exists in the balance-sheet of the agricultural bank, accounts for 2.9% of the total outstanding loan as of 1997. These figures are not so serious, if there are no hidden bad debts.

The problems are non-performing loans accumulated through so-called rescheduling. Annual Reports do not describe the details of the rescheduled loans. Our interviews could not reveal the actual status of these loans. However, it is likely that rescheduling of debt repayment has been done frequently. Deferred repayment has been normally accepted in case borrowers were damaged by natural disasters such as typhoon. Applications for loan from landless farmers have been easily accepted as we already explained. Land use certificates given as a security for loan have rarely been sold at auction. Judging from these circumstances, it is likely that rescheduling of repayment is a matter of commonsense in the financial world in the rural areas in Viet Nam. If this is the case, the sustainability of rural finance

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<sup>14</sup> Resolution (06/NQTU, November 10, 1998) issued by the Political Bureau of the Vietnamese Communist Party describes that accumulation of land is strictly controlled by State.

<sup>15</sup> Judging from various information on this matter, this figure may be too small to indicate the actual status.

<sup>16</sup> Frozen debts are a debt whose principal is guaranteed by the State Bank, so that defaults for such debts will not affect the financial situation of the Agricultural Bank.

is questioned. Financial discipline-without exception that they have to make every effort to return the borrowed money is most essential for financial transaction. But repetitive applications of rescheduling may give negative effects on the financial discipline, and may result in the destruction of the financial system. The Authorities should correctly recognize this serious problem, and correct the current practices that easily allow the rescheduling of repayment terms.

Second, it is necessary to develop a second financial institution in addition to the Bank for Agriculture. At present, the Peoples Credit Fund (PCF) is a candidate. However, PCF have many problems such as poor management, lack of capital, no linkage to The Government and State Bank, and so on (Tiem [6]). To cope with these difficulties, the Government should define the role and position of PCF clearly. Especially, the relationship of PCF with agricultural cooperatives, which will be promoted as one of rural financial institutions in the future. Anyway it is not desirable that the rural finance is controlled under a single government financial institution.

Third, rural savings mobilization is still weak, as described in the Phase 2 Report<sup>17</sup>. It is necessary to increase the number of savings facilities. In addition, it is also important to give financial institutions an incentive to collect deposits from small farmers through setting more flexible interest structure.

## 2) Agricultural Cooperatives

Since the establishment of the Cooperative Law in 1996, it has been attempted to convert old-type cooperatives into service institutions for farmer. As a result, about 40% of 13,000 old-type cooperatives have been transformed to new ones. Furthermore, many of production associations, a kind of precursor of agricultural cooperative, have been established throughout the country, especially in the Mekong Delta Areas. However, the number of newly established agricultural cooperative is not many, and their businesses are yet to grow enough<sup>18</sup>. The speed of the development of agricultural cooperatives seems to be slow.

Concerning the development of agricultural cooperatives in Viet Nam, there are many constraints such as lack of capital, lack of human resources, and negative images of old-type agricultural cooperatives. One additional reason for the slowness in growth is probably that the Government is respecting the principle that cooperatives should be established voluntarily by the members<sup>19</sup>.

On the other hand, farmers have been desiring the growth of cooperatives since the

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<sup>17</sup> See [12].

<sup>18</sup> According to surveys by CTU, farmers who have joined a cooperative account for only 7% of the total number of farmers.

<sup>19</sup> The Government policies for agricultural cooperatives can be characterized as gradualism. The negative image on old-type cooperatives is yet to be removed, and the Government hardly took the initiative in bringing up new-type agricultural cooperatives.

establishment of the Cooperative Law. According to CTU surveys for the Mekong Delta Areas, 59% of farmers think that cooperatives are necessary, while 11% of farmers think that they are not necessary. If cooperatives can show that they can help farmers to solve their problems, many farmers will rush to join agricultural cooperatives.

The Government should play an active role for developing cooperatives. The present governmental policies regarding cooperatives seem to be passive. It is recommended that the passive policies should be changed to more active ones. As described in the Phase 1 Report, the Government should involve the project for restructuring old-type cooperatives<sup>20</sup>. "Cooperative Information Centers" proposed in the Phase 2 Report is also worth considering<sup>21</sup>.

## 6. New Directions of Agricultural and Rural Development in Viet Nam

As explained in the beginning of this report, the agriculture in Viet Nam has been growing rapidly in the 1990s. However, judging from historical reviews for agricultural development in various countries, it is unlikely that this high growth will continue for the coming decade. No further expansion of farmland is expected. Allowance for further improvement in productivity is limited. There is a criticism against the overuse of agricultural chemicals and fertilizers. Under these circumstances, the agriculture in Viet Nam will be forced to change from the existing policy that is simply seeking a goal of larger production than ever.

One of new directions is to improve the quality of agricultural products. Rice for export has been already significantly improved, though its quality is still lower than foreign rice. In general, any of agricultural products in Viet Nam are yet to be improved in quality. It is also important to seek more value added by improving agricultural related activities, such as distribution, storage and processing of agricultural products. It is appreciative that the Government is recognizing the importance of the distribution systems, processing facilities and marketing abilities. However, if Viet Nam does want to convert from subsistent farming to commercial farming, and to participate in international markets, the Government should modify the existing policies that give highest priority to domestic demand, while considering the export a matter of secondary importance in such a way that rice may be exported if the harvest exceeds the domestic demand.

Another is to change the rice based monoculture. Diversified agriculture is required. To detail the way for diversification, it is necessary to accurately know the demand in both the domestic and overseas markets. As Japan has experienced, the diet pattern will drastically change with the development of economy. Unfortunately, few data as an evidence of the change in the domestic food consumption is available in Viet Nam, since the Government may be indifferent to the eating habits of the people.

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<sup>20</sup> See [10].

<sup>21</sup> See [11].



The above mentioned two directions are consistent with the agriculture emphasizing program in 1998. This program is compatible with the changes in agricultural policies in the neighboring countries that suffered from currency crises. According to newspaper information<sup>22</sup>, the program proposes a 1999 budget of 1.7 times as large as the investments for the previous year, projects for developing infrastructure such as irrigation and water supply systems, and enhancement in the resources for loans for farmers.

Also important it is to eliminate the poverty of landless farmers and those who possess too small farmland in the Mekong Delta Areas. This problem should be solved by increasing the employment opportunities in the rural areas. However, the dense population of the poor in the rural areas cannot be reduced in a day. The Government must continue to cope with this problem on a long term basis.

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<sup>22</sup> A Japanese newspaper Nihon Keizai Shinbun, January 4, 1999.

## References

- [ 1 ] Nguyen Sinh Cuc, "The State of Vietnamese Rice Economy," paper submitted to the follow-up project, 1999.
- [ 2 ] Le Van Minh, "Structure of Rice Production in Viet Nam," paper submitted to the follow-up project, 1999.
- [ 3 ] Nguyen The Nha, "Producing Status and Life Style of Landless and Lack of Land Households in Mekong River Delta," paper submitted to the follow-up project, 1999.
- [ 4 ] Nguyen Kim Vu, "Issues of Post-harvest in Rice Production of Viet Nam," paper submitted to the follow-up project, 1999.
- [ 5 ] Nguyen Tien Manh, "Rice Market in Viet Nam," paper submitted to the follow-up project, 1999.
- [ 6 ] Nguyen Van Tiem, "Strengthening the Service Institutions Supported the Agriculture and Countryside," paper submitted to the follow-up project, 1999.
- [ 7 ] Phan Doanh, "The Summing Up," paper submitted to the follow-up project, 1999.
- [ 8 ] Mai Van Nam and others, "Distribution, Processing and Marketing of Rice in the Mekong Delta, Viet Nam," paper submitted to JICA, 1999.
- [ 9 ] Le Khuong Ninh and others, "Rural Credit Systems in Cantoh and Tiengiang Provinces, Viet Nam," paper submitted to JICA, 1999.
- [10] "Summary of the Studies on Agricultural and Rural Development," in The Economic Development Policy in the Transition Toward a Market-Oriented Economy in the Socialist Republic of Viet Nam (Phase 1), Vol. 5, Agricultural and Rural Development, MPI and JICA, 1996.
- [11] Yonosuke Hara and Seiji Shindo, "Agricultural and Rural Development," in Study on Economic Development Policy in the Transition Toward a Market-Oriented Economy in Viet Nam (Phase 2), Vol. 1, General Comments/Agricultural and Rural Development, MPI and JICA, 1998.
- [12] Yoichi Izumida, "The State of the Art of Rural Finance in Viet Nam," in Study on Economic Development Policy in the Transition Toward a Market-Oriented Economy in Viet Nam (Phase 2), Vol. 1, General Comments/Agricultural and Rural Development, MPI and JICA, 1998.
- [13] Nguyen Tri Khiem and Others, "Viet Nam Rice Economy," Cantoh University, University of Agricultural and Forestry and Hue University, 1996.
- [14] IFPRI, "Marketing Constraints on Rice Exports from Viet Nam", 1996.

Table 1 Rice production in Viet Nam, from 1990 to 1998

Year	Rice Planted area 1000ha	Rice Production 1000t	Land Productivity ton/ha	Planted area of New Varieties 1000ha	Ratio of new varieties %
1990	6027.7	19225.1	3.19	2860.8	47.5
1991	6202.7	19621.9	3.16	3234.5	52.1
1992	6475.4	21590.3	3.33	3809.9	58.8
1993	6559.4	22836.3	3.48	4144.4	63.2
1994	6598.6	23528.2	3.57	4722.0	71.6
1995	6765.6	24963.7	3.69	5153.6	76.2
1996	7008.8	26396.1	3.77	5800.3	82.8
1997	7099.7	27523.9	3.88	6177.3	87.0
1998	7362.4	29141.7	3.96	6420.5	87.2

Source: Vietnamese-side reports

Table 2 Rice Price and Fertilizer Price 1990 to 1998

Year	Rice price national average dong/kg	Fertilizer price nat. average dong/kg	Price index of rice	Price index of Fertilizer	Relative price index	Wage, rate in rice production dong/workday	Wage index	Amount of fertilizer use kg/ha
1990	550	1030	100	100	100	10500	100	124.6
1991	1298	2040	236	198	119	20300	193	132.4
1992	1300	2135	236	207	114	21700	207	129.5
1993	1168	2214	212	215	99	22400	213	121.6
1994	1352	2336	246	227	108	23450	223	136.0
1995	1957	2439	356	237	150	24500	233	140.7
1996	1857	2540	338	247	137	26700	254	142.5
1997	1500	2628	273	255	107	22400	213	151.3
1998	2200	2630	400	255	157	24500	233	153.1

Source: Vietnamese-side report

note 1) Rice price as unit price of rice.

2) Fertilizer prices are those of urea.

3) Index: 1990=100

4) Amount of fertilizer use is total amount of used fertilizer in paddy production.

Table 3-1 Regional differences in rice price

	Whole country dong/kg	North mountain and midland dong/kg	Red river delta dong/kg	North central coast dong/kg	South central coast dong/kg	Central highlands dong/kg	North East South dong/kg	Mekong river delta dong/kg
1990	550	550	550	551	550	549	580	500
1991	1298	1300	1299	1350	1352	1345	1400	1200
1992	1300	1315	1309	1345	1350	1343	1416	1205
1993	1168	1210	1180	1200	1210	1216	1407	1080
1994	1352	1403	1400	1410	1409	1419	1530	1290
1995	1957	2000	1990	2010	1987	1989	2050	1870
1996	1857	1950	1860	1873	1890	1900	2000	1750
1997	1500	1600	1630	1553	1580	1599	1715	1349
1998	2200	2400	2410	2350	2315	2349	2465	1950

Table 3-2 Regional differences in rice price

(index:whole country=100)

	Whole country	North mountain and midland	Red river delta	North central coast	South central coast	Central highlands	North East South	Mekong delta river
1990	100	100	100	100	100	100	106	91
1991	100	100	100	104	104	104	108	92
1992	100	101	101	103	104	103	109	93
1993	100	104	101	103	104	104	120	92
1994	100	104	104	104	104	105	113	95
1995	100	102	102	103	102	102	105	96
1996	100	105	100	101	102	102	108	94
1997	100	107	109	104	105	107	114	90
1998	100	109	110	107	105	107	112	89

Source: Vietnamese-side report

Table 4 Structure of rice production cost in Red River Delta and Mekong Delta

(unit:1000dong per ha)

item	Red river delta			Mekong delta		
	winter-spring	summer-autumn	Average	winter-spring	summer-autumn	Average
Material costs	4177	3202	3769	3466	3014	3199
seed	567	502	540	536	539	536
fertilizer	1866	1169	1575	1353	975	1150
share of fertilizer:%	25	19	22	24	19	21
water	377	315	351	375	324	348
depreciation	107	106	106	45	41	43
Labor costs	2497	2487	2553	1376	1710	1556
hired labor	354	234	304	325	554	447
imputed lab.cost	2143	2253	2249	1053	1156	1109
Other costs	777	595	700	798	507	641
agricultural tax	454	376	422	458	229	335
interest paid	4	1	3	164	149	156
Total costs	7451	6284	7022	5590	5231	5395
Total production(kg)	6587	4752	5817	6122	4722	5364
Average cost (dong/kg)	1131	1322	1207	913	1108	1006
Average selling price (dong/kg)	1911	1920	1915	1459	1253	1363
Gross Revenue (1000d)	12887	9408	11431	8929	5917	7308
Profit per 1ha G.revunuc-total cost	5436	3124	4409	3339	686	1913
Income per ha (profit+ imputed labor cost)	7579	5377	6658	4392	1842	3022

Source: Vietnamese-side report

Note:Imputed labor cost is the sum of family labor cost and exchange labor cost.

Table 5 Food supply and rice export in Viet Nam

Year	Food output rice equivalent	Food per Capita	Production of rice	Rice per capita	Volume of rice export	Value of rice export	average export price
	1000ton	kg/person	1000ton	kg/person	1000ton	million US\$	US\$/ton
1990	21489	324	19225	290	1624	305	188
1991	21990	325	19622	291	1033	235	227
1992	24215	349	21590	311	1946	418	215
1993	25502	359	22837	314	1722	362	210
1994	26199	361	23582	324	1983	424	214
1995	27554	373	24927	336	2058	530	258
1996	29210	366	26397	349	3047	868	285
1997	30561	396	27646	358	3682	891	242
1998	31854	401	29142	367	3800	1100	289

Source: Vietnamese-side report

Table 6 Retail price of rice, distribution costs and distribution m (in 1998)

Retail price of rice	2,357	100%
Farm gate price	1,750	74.2
Costs of distribution and processing	319	13.5
Margin of distribution and processing	288	12.2

Note: 1) Data from the survey of Cantoh university

2) Conversion rate from paddy to milled rice is assumed as 60 percent

3) Here the distribution channel of rice is assumed to be: farms → assemblers  
→ rice millers → wholesalers → retailers → consumers

Table 7 The Number of Landless and Land Lacking Household in Mekong Delta (in 1994)

Province	Landless Household		Land lacking Household		Total Household	
	the number of household	ratio %	the number of household	ratio %	the number of household	ratio %
1. Long An	769	0.48	10,214	6.38	10,983	6.86
2. Tien Giang	957	0.45	24,447	11.60	25,404	12.05
3. Ben Tre	570	0.30	26,859	14.37	27,429	14.67
4. Soc Trang	3,668	2.62	3,048	2.18	6,716	4.80
5. Vinh Long	442	0.34	9,153	7.05	9,595	7.39
6. Tra Vinh	770	0.67	4,789	4.19	5,559	4.86
7. Dong Thap	168	0.10	7,131	4.35	7,299	4.45
8. Can Toh	825	0.44	11,538	6.16	12,363	6.60
9. An Giang	1,721	1.14	7,201	4.75	8,922	5.89
10. Kien Giang	1,441	0.98	1,853	1.30	3,294	2.28
11. Bac Lieu	489	0.63	1,043	1.46	1,532	2.09
12. Ca Mau	457	0.50	750	0.78	1,207	1.28
Total	12,250	0.70	108,035	6.16	120,285	6.86

Source:Nha[3]

Table 8 The Number of Landless and Land Lacking Household in Mekong Delta (in 1998)

province	landless		land lacking		total	
	the number of household	ratio %	the number of household	ratio %	the number of household	ratio %
1. Long An	1,536	0.62	20,712	9.95	22,248	10.57
2. Tien Giang	2,393	0.88	8,778	3.24	11,171	4.12
3. Ben Tre	11,974	5.05	23,454	10.14	35,428	15.19
4. Soc Trang	9,900	6.58	20,802	13.83	30,702	20.41
5. Vinh Long	9,218	5.20	43,514	24.81	52,732	30.01
6. Tra Vinh	16,198	14.00	16,871	10.00	33,069	24.00
7. Dong Thap	15,516	7.16	12,163	5.60	27,679	12.76
8. Can Toh	16,147	5.00	22,155	10.40	38,302	15.40
9. An Giang	15,870	5.58	24,433	8.59	40,303	14.17
10. Kien Giang	9,376	5.59	3,759	2.65	13,135	8.24
11. Bac Lieu	14,086	13.33	5,611	5.30	19,697	18.63
12. Ca Mau	14,424	8.24	6,043	3.47	20,467	11.71
Total	136,338	5.69	208,322	8.71	344,660	14.40

Source:Nha[3]

