NATIONAL CENTRE FOR SOCIAL SCIENCES AND HUMANITIES
&
UNIVERSITY OF BRITISH COLUMBIA, CANADA

PHAM XUAN NAM (Chief Editor)

RURAL DEVELOPMENT IN VIETNAM

SOCIAL SCIENCES PUBLISHING HOUSE
HANOI - 2001

RURAL DEVELOPMENT IN VIETNAM

The Search for Sustainable Development

Co-authors:

- Prof. PHAM XUAN NAM
- Prof. BE VIET DANG
- Prof. GEOFFREY B. HAINSWORTH

Translation was done by Mr. Le Ngoc and edited by *Prof.* Geoffrey B. Hainsworth and Julie Nguyen Hoang Trang *MA*.

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Foreword – Second Edition

The book "***Rural Development in Vietnam***" is the result of one of the four research topics undertaken by the *Five Year Linkage Project* (1991-1996) between NCSSH and UBC, sponsored by CIDA and IDRC.

The book was first published in Vietnamese in 1997, and the first English edition came out in 1999.

Since then the socio-economic situation in the rural areas of Vietnam has improved in many respects.

During the last Five Year Plan (1996-2000), food production increased from 29.2 to 35.7 million tons. Various activities in the small-and handicraft-industries and services sectors have started to develop along with the process of national industrialization and modernization. Rural economic restructuring has led to the creation of about one million new jobs every year. The implementation of the Population and Family Planning Programme has ensured that the natural rate of population growth in rural areas has declined from 2.3% in 1992 to 1.7% in 2000. The number of well-off households has increased, and the number of poor households in rural areas fell from 30% in 1992 to about 11% in 2000 (as measured by the national criteria for poverty defined by MOLISA in 1996). Environmental

management programmes, especially reforestation in areas of denuded mountains and the implementation of IPM in the rice fields of the Red River and the Mekong River Deltas, have been expanding.

Looking beyond these achievements, however, rural development in Vietnam still faces a number of obstacles and challenges. These are predicted and analyzed by the authors of this book, who also offer a number of recommendations for future action.

Since its first publication, this book has been appreciated by many Vietnamese and foreign readers.

As the first English edition was published with a very limited print run, which is why the Social Sciences Publishing House has decided to issue a second edition, in the hopes that it may meet the needs of a wider readership. The editors look forward to the comments and suggestions of all who read this book.

Hanoi, June 2001

Preface

For the ten years now, Vietnam has been undertaking a renovation process for the purpose of promoting socio-economic development and closer integration with the rest of the world. A wide range of theoretical and practical problems have cropped up relating to various aspects of national social life, as well as regarding the relationship with foreign countries, and these have become urgent topics for research and heated debate among scholars and policy makers at all levels from the central level of administration to the localities.

Several research programs have been undertaken on the order of the State and a number of projects involving scientific cooperation with foreign countries have been carried out. More than ever before, complex realities call for close collaboration between researchers and policy makers, and for the formation of an "*intellectual alliance*" oriented towards in-depth investigation into the changing conditions affecting the country, and, at the same time, opening wide the door to the outside world. By this means, we can seek to build a strong scientific foundation for continued renovation and consolidation, and improve the nation's development strategies, policies, and plans with a view to

accelerating "*economic growth linked closely with social progress and equity, cultural development, and environmental protection*".[1]

It is in this context that a five-year Linkage Project has been operating since early 1991 between ***the Vietnam National Center for Social Sciences and Humanities*** (NCSSH) and ***the University of British Columbia*** (UBC), with generous financial support from ***Canadian International Development Agency*** (CIDA). Within the framework of this project alongside three other focal areas, the topic of **Rural Development** was originally launched to achieve the following modest tasks: a/ to collect and to analyze domestic documents and data on rural socio-economic development; and b/ to builds a bibliography of foreign literature, from which some research contributions by Canadian and ASEAN authors, including works on sustainable rural development would be chosen and translated as reference documents.

Subsequently, since mid-1992, thanks to the initiative and efforts of our Canadian colleagues, a parallel research project was added to the original joint venture entitled "***The Cooperative Research Projects on Socio-Economic Impact of Renovation in Vietnam***", and this research – focused project has received generous financial support from ***International Development Research Centre*** (IDRC). Since then, under the topic of Rural Development, more favorable conditions have been created for the conduct and evaluation of policy oriented research, involving both theoretical and practical aspects.

The research objectives of the rural development team can be identified as:

1/ To enhance available empirical knowledge on the socio-economic impact of renovation (*Đổi mới*) in respect to rural development, while relating these findings to leading theories and rural development experiences in the rest of the world.

2/ To assess the achievements, identify the problems, forecast key trends of development, and elucidate the scientific foundations for the consolidation and improvement of rural development policies and plans as the national and local levels.

Research data materials on the theory and practice of rural development are, in themselves, extremely rich and diversified. Due to constraints of time, manpower, and financial capacity, the research team agreed to focus in particular on the following five aspects (or sub-topics):

- Population and family planning;

[1] *Strategy of Socio-economic Stabilization and Development towards the Year 2000.* Hanoi, 1991, p. 9.

- Labour and job creation in rural areas;

- Utilization and management of natural resources (mainly land and water);

- Restructuring of the rural economy, and especially the diversification of agricultural production and development of small scale industries and handicrafts;

- Social stratification, hunger eradication, and poverty alleviation.

In undertaking research on the topic of Rural Development, we have done our best to apply the following methodologies:

- A system analysis approach;

- An integrated assessment approach

- A comparative analysis approach (to identify the general and the particular, and to compare Vietnam's rural development situation with that of other countries).

As regards the operational schedule, we have undertaken the following tasks:

- To collect the necessary documents and data;

- To select and translate a range of theoretical and empirical research works of domestic and foreign scholars;

- To conduct rapid rural appraisals in a number of localities from the North to the South of Vietnam;

- To carry out surveys through questionnaires along with intensive interview with selected officials and

inhabitants in two communes in the Red River Delta (RRD), and one commune in the Northern upland and midland region.

The localities of the three primary research areas were:

- ***Phong Khe commune***, Yen Phong district, Ha Bac province, which lies between the plain and the midlands. Here, the people are mainly engaged in farm work and also practice a traditional craft, that is to make "*zo*" paper.[2]

- ***Tuong Giang commune***, Tien Son district, Ha Bac province, located in the RRD plain, where the people do farm work and engage in various activities including small industries, handicrafts, trade, and other services.

- ***Tu Ly commune***, Da Bac district, Hoa Binh province, which is in the mountainous region (over 500m altitude), where four ethnicities of Muong, Dao, Tay, and Kinh, are mainly engaged in farm work on terraced fields and on burnt –over land, and who have started to engage in afforestations and tree-planting.

The main members of Rural Development research team are Prof. Geoffrey B. Hainsworth from UBC, and Prof. Pham Xuan Nam and Prof. Be Viet Dang from NCSSH. Taking part in the field surveys in

[2] "*Zo*" paper made from the bark of particular type of three found locally.

mountainous areas, in addition to Prof. Be Viet Dang were four researchers from the Institute of Ethnology. Taking part in field surveys in the Red River Delta, together with Prof. Pham Xuan Nam, were six researchers from the Institute of Sociology and NISTFASS (the National Institute for Sciences and Technology Forecasting and Strategy Studies) an agency of MOSTE (the Ministry of Science, Technology and Environment).

Prof. Hainsworth has provided the team with a large number of books and articles, including his own valuable works and those of other foreign authors on rural development. He also visited many rural localities, and has given several informative seminars to the team on sustainable development theories.

The annual research results of these studies have been reflected in reports and paper delivered at project meetings and workshops in Vancourver (Canada), Bangkok (Thailand), Jakarta and Jogjakarta (Indonesia), Hanoi, Da Lat, Do Son, Nha Trang, and Thai Nguyen (Vietnam).

Now we compile the main results of the research efforts in the form of this books, including four chapters and a conclusion as follows.

Chapter I

SOME THEORIES AND MODELS OF RURAL DEVELOPMENT IN RECENT DECADES IN THE WORLD

I. SOME THEORIES

The issues of agriculture and rural development and their interaction with industry and urban development have long received special attention from prominent theoreticians in the economic and broader social science literature around the world.

In the post-Second World War era, particular mention must be made of at least three prominent theoretical schools that have been especially influential, and which differ significantly regarding the key issues and relationship between agriculture and industry in the process of economic development:

1. The theoretical school which highlights the role of agriculture in the course of industrialization

In the early 1960s, Bruce Johnston and John Mellor ascertained that a strong and dynamic agriculture would be a key factor in supporting industrial development and in promoting a rapid rate of growth for the entire national economy. According to these authors,

agriculture has five key roles to play: a/ to supply cheap foodstuffs and raw materials for the urban/industrial sector; b/ to export farm products to earn foreign exchange which could be used to finance technological and material imports for urban and industrial development; c/ to release labour to provide the workforce for the industrial sector; d/ to expand the domestic market for industrial products; and e/ to increase domestic savings to be used to finance industrial expansion[1].

At about the same time, Simon Kuznets also confirmed the contribution of agriculture to economic growth through commercial transactions, providing products to be used by other sectors within the country or abroad, to supply foodstuffs, industrial raw material, labour, capital, and markets for the industrialization process[2].

Although these authors highlighted the important role of agriculture, their theories, in essence, stress the need for structural change, reducing the share of agriculture in GDP and in the national work force, and increasing the shares of manufacturing industry and the urban service sector. The role of development policy was thus to facilitate the biggest possible extraction out

[1] Bruce F. Johnston and John W. Mellor: *The role of agriculture in economic development* (1961).

[2] Simon Kuznets: *Economic Growth and Structure* (1965).

of agricultural and rural resources in the service of promoting industrialization and urbanization. In terms of the process of development within agriculture and the rural sector in the industrialization process, these theories provided little or no insights as to how this should be accomplished.

Similarly, in the latest publication of the *La Grande Encylopedie Francaise*, in the chapter on the "*Rural World*" it is asserted that: "*The industrial revolution is accompanied by a general urbanization and the gradual death of rural civilization*"[3].

According to Prof. Hainsworth's writings, the Western orthodox economic theories, based on the development experience of Britain, other Europe, and North America in the period of rapid industrialization and urbanization (from approximately 1776 to 1973), typically and too simplistically assigned to agriculture the role of "*Cinderella*", or servant to the pampered "*ugly sister*" demands of urban and industrial expansion[4].

2. The theoretical school which advocates an "big leap" into industrialization/urbanization

The most well-known representative for this school of thought is W.W. Rostow. In his book outlining *The*

[3] *La Grande Encyclopedie Francaise*. Paris, 1986.

[4] Geoffrey B. Hainsworth: *Economic Perspective on Population - Environment Relationships*. Halifax and Jakarta, 1992.

Stages of Economic Growth[5], he asserted that the Western countries, and in particular the U.S., have attained such as high level of development that their experience should become the model for other countries to follow. All countries and peoples in the world should thus, in effect, construct schemes to make their economies as identical as possible to the United States. According to Rostow, the development of an agricultural society in an industrial, and then a "*post-industrial*" society, should be conducted simultaneously on four aspects: economic, spatial, socio-political, and cultural - i.e. industrialization, urbanization, internationalization, and Westernization. Obviously, in Rostow's theory, there was no clear perception regarding the complex role and process of agricultural and rural development, and especially how this should apply to developing countries.

Somewhat similar to Rostow's ideology, but more restrained, were the recommendations of several Western experts writing in *A Future for European Agriculture*[6]. They also tend to minimize the role of

[5] Walter W. Rostow: *The stages of economic growth - a non-communist manifesto* (1960).

[6] D. Bergman, U. Ressi-Doria, N. Kaldor, J.A. Schnittker... *A future for European Agriculture* (1970).

agriculture in the national economy. In their opinion, agriculture in Europe is "*essentially directed towards food-production*". Therefore, the only way to maintain economic growth is to reduce substantially the workforce in agriculture. This is also a frequently encountered viewpoint among a wide range of authors.

As a matter of course, the proportionate reduction of the workforce in agriculture, and the increase of the workforce employed in industry and services, is an inevitable trend in countries undertaking industrialization. However, the continuing "*five key roles*" of agriculture should not be forgotten, and it should not be assumed that one can "*by-pass stages*" in order to make a "*leap*" or accomplish a "*big push*" from being a predominantly agricultural country to becoming an industrial economy. It should also not be forgotten that, in the European countries, as well as in North America, the process of industrialization occurred over centuries. England started its industrialization in the late 18th century, followed by France and the U.S. in the 1840s or 1850s, and Germany, Italy, (and Japan in Asia) in the 1860s.

There is also another aspect of this early experience that often escapes being mentioned. Based on their industrial techniques, these "*advanced industrial*" countries pursued a flagrant policy of colonialism, or a

more subtle policy of economic domination (neo-colonialism). This was designed to induce or force the "*less developed*", colonial and other dependent countries to supply foodstuffs, cheap raw materials and labour effort at minimum cost, and to serve as outlets for their surplus manufactured commodities, during the process of industrial development.

Only since the Second World War, and especially since the 1960s, by taking "advantage" of their position as late-comers (particularly by virtue of the modern scientific - technological revolution, and their favorable geo-economic and geo-political conditions), some countries and territories in East Asia, Latin America, and the Middle East have been able to achieve the status of "*newly industrializing countries*" (NICs) within intervals as short as 30 - 40 years.

But, at times, for lack of proper attention to rural and agricultural development during the industrialization and urbanization process, the socio-economic panorama and performance of these countries has not been so rosy. In particular, several negative repercussions from seeking to follow a "*stage by-passing*" industrialization policy have come speedily and devastatingly for many under-developed or developing countries in Africa, Asia, and Latin America. In many of these countries, policy makers

have thought that, by simply making an "*outright leap*" to industrial development (based on Western capital, technology, expertise, and management methods), they could quickly escape poverty and backwardness, and attain the status of a modern, prosperous, industrial civilization.

The outcomes of such development policies have often been just the opposite of what was intended. The appropriate balance in agricultural/industrial, and rural/urban, development have been abruptly distorted and disrupted. Endemic shortages foodstuffs have often occurred, and industry has been deprived of the necessary endogenous factors for development. In the meantime, streams of people have surged into towns and cities, crowding into slums, leaving behind a destitute, miserable countryside. Poverty does not decline in such a disruptive "*transition*", but only increase and becomes more hopeless, creating an array of virtually insoluble social contradictions, miseries and conflicts.

3. The theoretical school which advocates a harmonious link between agriculture and industry, and between rurality and urbanity, in the development process

Particular mention in this section must be made to E.F. Schumacher (1917-1977), a British economist and a leading representative of this "*ecological*", "*balanced-*

growth" and "*people-centered*" approach. In the early 1970s, in his major work *Small is Beautiful*, he expressed the belief that, for genuine economic development to be achieved, "*the central concept of wisdom is permanence*"[7], and that, nowadays, "*an entirely new system of thought is needed, a system based on attention to people, and not primarily attention to goods*"[8]. According to Schumacher, to realize this new approach, adequate attention must be paid to agricultural and rural development, specifically in the development countries where the majority of people still live in rural areas, and where the largest share of the social workforce is in agricultural occupations.

Without negating the reasonable elements in the views of Johnston, Mellor, and Kuznets, etc. on the role of agriculture as providing the foundation for urban/industrial development, Schumacher outlines a more profound viewpoint, in which agriculture was seen to fulfill three additional fundamental tasks: a/ to keep man in touch with living nature; b/ to humanize and ennoble man's wider habitat; and c/ to bring forth the foodstuffs and other materials which are needed for a

[7] E.F. Schumaker: *Small is beautiful: Economics as if people mattered.* London and New York, 1973, p. 30.

[8] Ibid., p. 70

becoming life[9]. It would be a mistake, however, to conclude that Schumacher was opposed to industrialization. In fact, he only disagreed with a industrialization policy being achieved by relentlessly "*squeezing*" agriculturists and the rural resource base. On the contrary, he advocated a program of balanced development between industry and agriculture, and saw the potential for industrial achievements to make rural people's lives less arduous and their livelihoods more productive, secure and sustainable.

Historical realities have shown that, with the exception of a few territories and city-states such as Hong Kong and Singapore, all the existing "*dragons*"[10], such as South Korea and Taiwan - and the would - be Asian "*dragons*" like Malaysia, Thailand, etc. - have all paid special attention to agricultural and rural development, seeing this not only as building an essential foundation for industrialization and urbanization, but also as a key sector of concern in a long-term strategy for maintaining sustainable economic development for their countries.

Of course, not all countries can hope to achieve from the outset, or during the course of "*struggling to*

[9] Ibid. p. 105.

[10] i.e. Newly Industrializing Countries (NICs).

become dragons", an easy and harmonious equilibrium in development between agriculture/rurality and industry/urbanity. Each nation must solve its own particular problems and build its development on its own distinctive ecological, social, cultural and political arrangements.

II. SOME MODELS AND PRACTICAL EXPERIENCES

The following are some rural development models of countries in the region, from which we may learn the experiences of success and be aware not to repeat the experiences of failure.

1. South Korea

After the Second World War, 60% of South Korea's population lived in rural areas. The overwhelming majority of them were tenants, as most of arable land belonged to the landlord class.

In the late 1940's, the South Korean Government promulgated a Land Reform Law consisting of two fundamental contents: to confine the right to land ownership to no more than three hectares, and to ban all forms of hiring tenants for farm work. But not until the end of the Korean War (1953), did the Law take effect. Due to this Law, the proportion of tenants in the countryside declined from 86.2% in 1945 to 26.4% in 1960.

However, the land reform could go only half way, for the landlords countered by seeking to transfer land ownership to family members and close friends. As a result, 40% of the land intended for the peasants were not distributed.

The lack of thoroughness in the land reform, plus the policy of "*sacrificing*" agriculture for the sake of industrialization, of which a typical example was keeping farm product prices lower than cost prices, worsened rural living standards considerably. This was the reason for a migration a wave of about 1.3 million people from the countryside rushing to cities within five years, thus entailing an unrest in the whole country.

The military coup initiated by Park Chung Hee (May 1961), a self-styled "*rural man of soil*", took place under these circumstances. In the early days, the Park Chung Hee administration implemented several policies in favour of rural development. Agricultural banks and credit cooperative boosted capital investment contributing to raising agricultural growth rate from an average of 1.6% during 1957-1960 to 8.8% during 1962-1965. The improved living conditions of tens of millions of peasants created a vast domestic market for the implementation of the import-substitution industrialization strategy.

Then, in the late 1960s, South Korea opted for an export-oriented industrialization strategy. Together with the payment of low wages to workers, the policy of keeping down farm-product prices was again applied to support industrialists to enhance the competitiveness of their products in the world market. The average income of a peasant household which was comparable to that of an urban wage-earner household in 1965, dropped to 67% in the late 1970s. A new wave of about 1.4 million rural people again poured out to the cities. Slums began to appear gradually in capital Seoul as well as other cities. A spontaneous popular uprising broke out in August 1971.

Moreover, in the context of an intense political struggle with the People's Democratic Republic of Korea in the North, the South Korean authorities were obliged to pay attention again to agricultural and rural issues in order to stabilize the social situation in the South. A Program of Rural Development was introduced, covering 4 fundamental contents: a/ To vitalize the rural credit system by increasing loans to the peasants from 1.3 billion *won* in 1969 to 78.5 billion *won* in 1974; b/ To purchase peasants' cereal at high prices for sale to urban consumers at low prices by the state; c/ To substitute a new high-yield rice strain for the old strain; d/ To encourage the building of "*new*

communities" in the countryside (Saemaul Undong) by the establishment of production cooperative and labour teams to repair bridges and roads, and to improve housing conditions.

At the beginning, the Program created some positive results. Agricultural production was boosted and peasants' life improved, leading to an enhanced purchase power in the domestic market, which contributed to accelerating the industrialization process.

However, the program revealed considerable weaknesses later on. The policy of excessive price support for farm products, particularly the purchase of the peasants' rice at a price which doubled that in the world market, caused ever-bigger state budget deficits. In 1982, price supports for farm product commodities alone caused a deficit of 686 million USD, accounted for 34% of the total deficit of South Korean State budget. The substitution of a new rice strain for the old one did bring higher yields, but the peasants had to take out loans to buy chemical fertilizers and insecticides. The establishment of cooperatives and labour team, was done mostly under pressure of the authorities at various levels to meet the targets of the building "*new communities*" program in the countryside, not on a voluntary the basis of the peasants.

Those weaknesses further caused the tension in South Korea's political-social situation, leading to Chun Doo Hwan's military coup in December 1979. In the early 1980s, under the pressure of the World Bank and the US, South Korea had to relinquish its policy of price support for general farm products, and to reduce its price support for domestic rice, and open its domestic market to the US farm products in exchange for the opening of the US market to South Korea's manufactured consumer goods. In the late 1980s, South Korea became the world's third biggest importer of US farm product commodities. Compared to domestic demand, supply of soya-bean from the US accounted for 95-100%, wheat 74%, cotton 50%, beef 40%...

As thus, far from being a factor which contributed to accelerating the national economy growth as it was for a time, South Korea's agriculture was gradually turning into a "*sacred offering*" in the export-oriented industrialization strategy, according to the assessment of quite not a few South Korean and foreign scholars.

All the above factors led to declining agricultural production and deteriorating living conditions of the peasants. According to statistical data, from 1975 to 1985, the average income of a peasant household rose only by 6.6 times, while the loans they took by 63

times![11] Compared with the average income of an urban wage-earner household being comparable in 1975 that of a peasant household dropped to 84% in 1980, and 81% in recent years. The discrepancy was also seen in the quality of education, social welfare, and other public services.

Those were the reasons most of the young labour force abandonned the countryside to rush to the cities. Peasants' resentment worsened, culminating in a big demonstration which turned into chaos in front of the South Korean Parliament building in Seoul in 1988.

To relieve the tension, the succeeding administrations in Seoul had to readjust their socio-economy strategy, laying more emphasis on rural development. In April 1989, an "Overall plan of comprehensive rural development" was announced. On the basis of this overall plan, a concrete plan for "*10 years of improving rural structure*" started to deploy in 1992, with the following main contents:

- *First*, to improve rural economic structure in the direction of diversification and industrialization of agricultural production. To emphasize the application of biotechnology (gene technique) in various branches of

[11] Walden Bello and Stephanie Rosenfeld: *Dragons in Distress - Asia's Miracle Economics in Crisis*. San Francisco 1992, p.87.

cultivation and husbandry, to expand the processing capacity and marketing in order to turn South Korean agriculture into an all-round developed line which is capable of competing strongly in the domestic and foreign markets.

- *Second*, through policies promoting training, credit, and other measures to induce young labour to agricultural development, keeping a proper proportion of young people in the countryside;

- *Third*, to relieve the legal restraints on maximum land ownership in order to expand the scale of agricultural farms, and to step up the mechanization of various farming activities;

- *Fourth*, to raise the income and living standard of the rural population to the same level as those of average urban wage-earner households. At the same time, to improve the quality of education, public health, housing, communications, water supply and drainage, cultural facilities... so as to make rural living conditions more attractive to the people, particularly the young generation.

To implement the above plan, the South Korean Government has committed a 42,000 billion *won* investment (about 52.5 billion USD) for the 1992-1998 period.

In short, having become a newly industrializing country, South Korea is still paying attention to agricultural and rural development in order to ensure a logical equilibrium of the whole socio-economy development strategy, making better preparations for the country to enter the 21st century.

2. Taiwan

Without being a perfection among the NICs, Taiwan is perhaps the most successful model for a close combination between industrial/urban development and agricultural/rural development.

Like Japan, Taiwan does not have favourable natural conditions. The island acreage is 36,000 km^2, of which only 920,000 hectares are arable land.

Following the Sino-Japan war in 1895, Taiwan, originally part of Chinese territory, became a Japanese colony. At the end of the Second World War, the defeated Japan had to leave Taiwan, and the island was put under the rule of the Kuomintang Government headed by Chiang Kai-Shek. In late 1949, with the founding of the People's Republic of China, the entire Chiang Government, together with over one million people, fled to the Taiwan island from the mainland.

Learning from the bitter lesson of failure in the mainland, and backed by the US economic, financial aid and military protection, the Taiwanese administration

strove to work out appropriate policies of socio-economic development to be able to stand firm on the island.

The result was that within more than three decades, Taiwan was turned from an under-developed agricultural territory ruled by landlords who thrived on land rent into one of the four Asian "*dragons*".

From 1952 to 1990, Taiwan's agricultural output rose by 4 to 5 times, and industrial output by 50 times. Though the proportion of agricultural workforce, which was over 56% of the total social workforce in 1952, declined to 12.95% in 1990, the total value of agricultural output went up from 700 million USD to over 12 billion USD, and farm product exports from 14 million to over 4 billion USD[12].

By what policies and measures could Taiwan obtain such achievements?

A general glimpse reveals the following essential points:

One: *To give land to the title farmers and to facilitate the formation of small-scale family farms*

[12] After Nguyễn Điền: "Kinh tế trang trại gia đình qui mô nhỏ trong nền nông nghiệp Đài Loan" (Small-scale family farm economy in Taiwanese agriculture), Review *Information and Theory*, Oct. 1995, p. 38.

Almost like the situation on the Chinese mainland, before World War II, two-thirds of Taiwan's agricultural population were agricultural workers and tenants; over 40% of smaller owners held only 5.7% of land, while the landlords, who made up 11.5% of all land owners, held some 62% of land.

Refusing to implement the land reform was an important reason for the Chiang Kai-Shek administration's ignominous defeat on the mainland. That was why, after fleeing to Taiwan, the first task that the administration determined to do during 1949-1953 was to reduce land rent for the tenants from 50% to 37.5% of main harvests, to sell public land to the peasants on credit which was mostly land confisticated from the Japanese, and to make compulsory purchase of the landlords' land which exceeded the stipulated limits (3 hectares for water ricefield, and 6 hectares for dry ricefield) so as to resell to the peasants on installment payments.

The completion of this "flexible" land reform has facilitated the emergence of small-scale family farms which engaged in turning out farm-product commodities. In 1953, there were 679,000 farms of, averagely, 1.29 hectares each. In the early 1991, the total number of farms rose to 823,256 with an average scale of 1.08 hectares.

Two: *To diversify agricultural production and to industrialize the countryside.*

The allocation of land to farmers has enable the peasants to "*turn sand into gold*", as a Chinese proverb goes. As a matter of fact, after the land reform, during 15 consecutive years, from 1953 to 1968, Taiwan's average annual growth rate of agricultural production was 5.2%[13]. With the development of agricultural production, the increase of peasants income, and the improvement of their living conditions, the domestic market was expanded to serve the realization of the import-substitution industrialization strategy (1953-1962); and thus, the peasants could well afford to set aside part of their accumulation for a multi-culture agriculture. From 1952 to 1984, the product value of cultivation doubled, while that of husbandry and aquaculture increased by ten times. From 1953 to 1985, rice dropped from 50% total value of agricultural output to 25%, while husbandry rose from 14% to 40%, fruit cultivation from 3% to 10%, and vegetables from 4% to 15%.

The promotion of non-agricultural production and business lines was also accelerated. By 1984, the

[13] René Dumont: *Taiwan. the Price of Success.* Social Sciences Publishing House - 1991, p.36. 120.

number of farms engaged in agricultural production and non-agricultural undertaking made up 91%, and only 9% remained exclusively agricultural farms.

The increase of agricultural output and labour productivity, in turns helped facilitate the industrial and urban areas to acquire abundant sources of food and workforce for development. From 1953 to 1970, over 800,000 labourers moved from agriculture to other lines, mostly to industry. Therefore, it was the agricultural and rural development which created a momentum for the fast development of Taiwanese industry.

Three: *To make investment in technical and social infrastructure for rural development*

For several decades, Taiwan paid special attention to developing widespread networks of transport and communication - both regular and rail roads - in all rural areas. The electrification process, of which a significant part was nuclear electricity, also developed quite fast. Those were the factors which contributed to improving rural working and living conditions and, at the same time, made it possible to expand industrial establishments in the villages.

Since the 1970s, compulsory education has extended from 6 to 9 years. The education level of both the rural and urban populations was considerably heightened. With better general knowledge and living conditions,

the population growth rate declined from 3.2% in 1950 to 1.5% in 1985.

Unlike some other Asian countries, where rural child labour is extracted, the rural population in Taiwan, for the recent decades, have extended their children's education time and considered this an important basis for their children's career advancement.

Four: *To emphasize an even development among various regions of the country, and not to concentrate too much on giant industrial and urban areas*

Following the state of import-substitution industrialization, in the mid-1960s, Taiwan switched to the stage of export-oriented industrialization. Even in this stage, many small industrial establishments were still located in the villages. This strategy did not require big capital investment for the building of industrial establishments in the cities, and also helped small-scale production units more nimble and be able to absorb the repercussions of domestic and international markets.

Many medium-size and even big-size industrial establishments were spread evenly among small and medium cities, unlike several countries such as Mexico, Brazil, India, Thailand... which have concentrated most of their industrial establishments in a few giant cities. This excessive urbanization has given rise to horrid

slums, and caused terrible traffic congestion and deteriorated environmental pollution.

By the early 1980s, Taiwan had 17.7% of its industry located in 5 biggest cities, 42% in their sub-urban, and 32% in rural areas. The strategy of rational space utilization during the course of industrialization and urbanization has resulted in reducing the discrepancy in the development level of urban and rural areas, and also the income gap between the rich and the poor. On average, the ratio of 20% of the richest to 20% of the poorest which was 15: 1 in the 1950s went down to 4: 1 in the early 1990s.

Five: *To opt for an appropriate mode of land utilization and forms of voluntary cooperation to promote agricultural extension*

Industrialization of agriculture requires the expansion of production scale of family farms in order to apply scientific-technical advance, to reduce production costs, and to lower selling prices. But for the Taiwanese peasants, land is an important indicator of social status of every family. Therefore, though many people have switched to non-agricultural jobs, which bring higher income than agriculture, they try to keep their land and transfer it to their children. Hence, the Taiwanese have found a way to do it by transferring the right to land use to other people while keeping intact

their right to land ownership. This is referred to as a trust production mode. The peasants take trust land from other people to expand the scale of production, to apply scientific-technical advance, and to increase labour productivity as well as income.

The trust production mode was at first practiced at the peasants' initiative, and officially recognized later by the authorities through the *Agricultural Development Law* (1983). So far, about three-fourths of all the farms have followed this mode.

Besides, to expand the scale of production, family farms in Taiwan have also practiced some cooperative forms such as:

- Joint working team, which is a simple form of cooperation among some families of the same village in doing such jobs as land preparation, harvesting, and sale and purchase of materials and products. This form is relatively prevalent.

- Pilot organization, in some places, of cooperatives by way of pooling land and labour of families for joint production. This finds little positive response from the peasants.

- Technical service agencies and agricultural promotion associations, which are increasingly sought for by the peasants.

In each village, a number of peasant households would invest in equipment and new techniques in land preparation, seed planting, and seedling transplanting for other farms in accordance with the local production schedule. Particularly, many associations of plant growers (vegetables, industrial crops, flowers, exotic plants...) and animal raisers (ducks, fish, shrimps...) were founded on a voluntary basis to introduce high-yield, good-quality strains and breeds so as to meet the demand of domestic consumption and exports.

3. Thailand

Despite its efforts to implement a number of programs to build up the national industry before and after the Second World War, by the late 1950s Thailand remained a "*less-developed*" agricultural country. In 1960, 82% of the social workforce were engaged in agriculture, only 4% in industry, and the rest in services. Agricultural products accounted for 70% of total export value.

At that time, though being the biggest rice exporter in Southeast Asia, most of Thai peasants experienced hunger. The main reason was that 85% of rural households owned no land, and had to work as tenants or hired labour for the landlords. In the mid - 1950s, a law was promulgated limiting maximum land ownership to within 50 *rai* (equivalent to 8 hectares); the rest

would be distributed to the landless peasants. But faced with the landlords' reaction, the law could not be enforced and was annulled in 1959.

Under the circumstances, on the World Bank's recommendation and with US aid, Thailand implemented and import-substitution industrialization strategy which was deployed in several other countries such as South Korea, Taiwan, Malaysia, the Philippines. The aim was to turn Thailand into an "*model*" of prosperous development, winning the "*hearts and minds*" of the population, of whom the majority were peasants, so as to contribute to prevent the so-called "*communist expansion*" in Southeast Asia.

The strategy was concretized in two development plans, the first for 1961-1966 and the second for 1967-1971. After 11 years of plan implementation, and obvious shift was seen in Thai economic structure, with the ratio of different sectors in GNP as follows[14]:

	1961	***1971***
- Agriculture	60%	40%
- Industry	12%	28%
- Services	28%	32%

[14] Nguyễn Thu Mỹ - Đặng Bích Hà: *Thái Lan - cuộc hành trình tới câu lạc bộ các nước nông nghiệp mới* (Thailand - A trip to the NICs club). Truth Publishing House, Hanoi 1992, p. 49.

While focusing national efforts on industrial development, Thai Governments also paid attention to agricultural and rural development. Hundreds of mobile development teams were sent to the countryside to help the peasants build roads, irrigation networks, schools, health stations, to clear virgin land, to establish credit cooperatives, to apply scientific-technical advance in production...

However, the industrialization strategy during this period had considerable shortcomings and weaknesses:

One: As 95% of the state capital investment was reserved for the building of infrastructure and the expansion of industrial establishments, the industrialization strategy was "*linked only to a very small extent with the program of rural economic development and protection of natural resources*", as was admitted later by Thai policy makers themselves.

Two: As over 80% of industrial establishments were concentrated in Bangkok and its surrounding, the territorial equilibrium for production was disrupted, resulting in a widening gap among various regions of the country in terms of development levels, particularly between the urban and rural areas.

In the late 1960s, while the average annual income of a peasant household in the central part of the country was 8,770 *Bath*, its was 5,778 *Bath* in the North, 5,730

in the South, and only 2,990 in the Nort-East. Most of the poor peasant households suffered from mounting debts at very high interest rates (about 20-30% per month), which drove them to give up their land to the landlords as payment. This impoverishment led to widespread peasant movements of struggle against the Government in many places, above all in northeastern Thailand. This, together with the impact of several other incidences such as the oil crises in 1974 and 1979, pushed Thailand into a serious economic recession, entailing a prolonged socio-political crisis.

From the late 1973 to the early 1980s, five successive Governments came to power in Bangkok. They were all obliged to pay more attention to rural issues in the third (1972-1976) and fourth (1977-1981) development plans. The Land Reform Law, the Land Rent Control Law, and some other social policies concerning the peasants were promulgated. But due to lack of funds and personnel for implementation, these laws remained only on paper. During this period, though the Thai Governments announced numerous favourable provisions for foreign investors. However, due to the unstable socio-political situation, foreign investors not only failed to respond, but also sought to withdraw their invested capital from the country.

Early in 1980, on the basis of an all-round analysis of the actual socio-economic state of the country, a group of leading social planners of Thailand proposed to the Government a new strategy of economy development called the "*Strategy of optional development*". The strategy focused on rural development in order to accelerate agricultural production and to increase farmers' income, creating a strong foundation for industrialization.

In collaboration with the Thai scholars, the World Bank, having realized the mistake of its previous recommendation, also exerted its influence so that the Thai Government might readjust its economic policy by the implementation of three simultaneous programs: *Program of industrial development, program of rural development, and program of energy.*

The program of industrial development had its objective in shifting from an import-substitution industrialization strategy to an export-oriented industrialization strategy. While accepting the program in view of the World Bank's loan approval, Thai policy-makers realized that unlike South Korea, Hong Kong, and Singapore, Thailand has a tropical agriculture with a high ratio of farm-product exports for the past several decades; therefore, its industrialization must go together with agricultural and rural development. They believed

the key link connecting agricultural development and industrial development was the *industry of food and foodstuffs processing*. At that time the choice of this industry as a cutting edge for the industrialization course was aimed at taking advantage of a tropical agriculture, generating further value added for farm-product commodities, raising income and improving the peasants' living conditions, and at the same time, expanding the labour, capital, and consumer markets in the interests of industrial development.

Parallel to the above tasks, the program of rural development also encompassed measures to diversify agricultural production, to increase investment in the construction of irrigation systems, roads, health stations, a number of new industrial centers, and rural electrification, with adequate attention given to the poor regions, so as to narrow the gap among them. The land reform course, which had been half done in the previous years, was gradually carried out in many places.

The World Bank's advice and the home scholars' recommendation were accepted by the Government and brought into the Fifth Development Plan (1982-1986). By the end of the plan, Thailand had managed to overcome the serious economic recession, and its socio-political situation gradually became stable. The average annual economic growth rate during 1982-1986 was 6%.

The program of rural development also saw considerable progress. By 1986, 154 districts, compared to 40 in 1981, escaped from poverty; over 90% of the population were literate; and health stations were available in all communes of the country.

Obviously, the export-oriented industrialization strategy based on agricultural and rural development did somewhat recover the equilibrium and establish an inter-dependent linkage between the two principal production sectors of the national economy.

The ratio of agriculture in GDP, though having gone down to 17% in 1986 from 40% in 1971, generated a higher absolute value. Agriculture not only provided sufficient rice, maniocs, maize, millet... for home consumption and primary exports, but also ensured adequate supply of materials for the processing industry, creating ever higher value added. In turn, the developed processing industry and other industries had their demand met, and, at the same time, enabled then to supply the necessary materials, machinery, and equipment back to agriculture and the countryside.

From 1987 to 1991, Thailand carried out its Sixth Development Plan with the following main objectives: to enhance the utilization efficiency of financial sources, natural and human resources, and scientific-technological achievements; to improve the structure of

industrial-agricultural production and basic services; to develop urban areas, special zones and, at the same time, the countryside; to promote a more equitable distribution of wealth in society...

Thanks to the efforts of Government and the people, the Sixth Development Plan recorded great achievements. The average annual growth rate of GDP attained 10.5%, the highest in Thailand in the past 25 years, and also one of the highest growth rate in the world during that time. As regards the essential economic sectors, on average, every year agriculture rose by 3.4%, industry 13.7%, construction 18.7%, and services 11%[15]. Within 5 years, average per-capita income nearly doubled. The eastern and southern coastal areas started to receive and benefit from development investment.

However, several negative consequences of the policies of imbalanced and incongruous development between agriculture/rurality and industry/urbanity in the previous years remained to be solved, and some of them became even more serious. The concentration of about 20,000 industrial enterprises in Bangkok and its periphery entailed and excessive urbanization, which

[15] *Summary of the 7th National Economic and Social Development Plan 1992-1996*, p.18.

exacerbated traffic congestion and air and water pollution. Far from attaining the objective set out in the Fifth and Sixth Development Plans, the discrepancy in the distribution of social wealth did not decline, but even grew. According to survey data, the income of 20% of the richest households rose from 49.3% in 1975 to 54.9% in 1988, while the income of 20% of the poorest households declined from 6.1% to 4.5% respectively[16]. The gap in development level among regions and between rural and urban areas, which was an endemic defect of Thailand's development model, continued to grow. Within 8 years, 1981-1989, the contribution of capital Bangkok to GDP rose from 42% to 48%, while that of the north eastern, northern and southern regions declined from 14.7% to 12.9%, 13.5% to 11.4%, and 10% to 9% respectively[17].

To overcome the above-mentioned weaknesses, the Seventh National Economic and Social Development Plan (1992-1996) has advocated decentralizing industrial development towards the eastern coastal region and the southern new economic zone; restructuring the agricultural sector for an all-round development of agriculture, forestry, fishery, and agro-

[16] [17] Ibid., p.2.

forest-aquatic product processing industry; improving the quality of life of the rural population; distributing more equitably the benefits of development among social strata, among regions, between rural and urban areas...

Evidently, only by attaining those objectives can Thailand hope to achieve a fast, efficient, and sustainable development.

Chapter II

NATURAL CONDITIONS AND HISTORICAL LEGACY OF VIETNAM'S AGRICULTURE AND RURAL AREAS

I. NATURAL CONDITIONS

Vietnam was one of the original age-old wet paddy civilizations. While the country's natural conditions involve both favourable and unfavourable factors, they were more conductive to the emergence and development of this civilization.

With 7 degree of longitude where it is widest (102°10' – 109°24' East) and 15 degree of latitude in length (8°30' – 23°22' North), Vietnam is in the intermediate zone lying, in a vertical sense, between the Asian continent and Australia, and in a horizontal sense between the Pacific and Indian oceans, according to geographers. Its 3260 kilometers long S-shaped coastal line stretched from the northern part of the Tonkin Gulf to the eastern part of the Gulf of Thailand. The country's total area is 330,991 square kilometers. It has mountain ranges running from the North-West to the

South-East, perpencular with two alternating monsoon winds in the year, and is crises crossed by a dense river network resulting in discontinuous patches of fertile deltas, of which the biggest granary is the Mekong River Delta and the second biggest one is the Red River Delta.

All the above factors give the country a diversified landscape, a rich tropical, sub-tropical and even temperate fauna and flora, varying with the seasonal rhythms in the year.

Vietnam thus has fairly rich resources in terms of animal and vegetalgenes, comprising:

- Trees and plants of economic value: 2000 species of wood trees, 1000 oil-producing species, 90 fibre-producing species, 70 resin-producing species, and hundreds of fruit-producing and medicinal species.

- Animals: about 3000 animal species, 800 bird species, 1000 amphibious species, 150 reptile species, 1000 species of sea fish, 80 prawn species, 200 species of fresh water fish, including many specific species of Vietnam.

With a high number of sunshine hours, and high radiation (7000°C to 9000°C) Vietnam's thermal resource is considered rich and is of utmost importance to the vegetation cover and cultivated plants, of which

wet paddy, subsidiary food crops, and vegetables, can be grown on a rotation basis. But high humidity, And profuse sunshine are also conducive to the emergence and proliferation of insects and pests.

Vietnam also has considerable water resources. With a river network accounting for about 0.22km/km^2, surface water flows amount to 867 billion cubic metres/years, or a per capita availability of 17,000m^3 in 1992, that is 5-8 times more than the average in temperate countries[1]. If well exploited and managed these water resources could provide enough water for agriculture, industry and the population's daily life.

The average annual rainfall is quite high (1500-2000mm/year), but it unevenly distributed in various seasons and areas. As a result, floods during the rainy season, and droughts during the dry season are common occurrences which sometimes become serious natural calamities causing heavy losses to production and people's living condition in some parts of the country. In recent decades, floods and droughts have been increasing gradually in terms of tempo and intensity mainly as a result of the serious degradation of the forest cover.

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[1] *Lịch sử nông nghiệp Việt Nam* (History of Vietnam's Agriculture). Agriculture Publishing Houe, 1994, pp. 44-46.

Together with climatic conditions and water resources, land resources – which are indispensable to agricultural production and rural life – also have their specific features.

In terms of natural land area, Vietnam ranks the 58th in the world. Yet, due to a big population and high population growth rates, its average per capita land area rate is very low and is decreasing from 0.60 hectare/person in 1983 to 0.47 hectare/person in 1992, thus ranking the 128th among nearly 200 countries in the world[2].

Furthermore, mountains and hills account for nearly three-fourths of the land area, that is 25 million hectares, of which some 17 million hectares have gradients of 25° and more. Flat land only accounts for one-fourth of the territory, that is, about 8 million hectares. If account is taken of patches of land with low inclination in hilly areas, total cultivate land amounts to 10-11 million hectares. By the early 1990s, the whole country was using nearly 7 million hectares of land for agricultural production, that is, 21% of the total land area. Per capita land availability was thus one-tenth of hectare, indeed, among the lowest average in the world.

[2] Ibib., pp. 46-47.

Meanwhile, desolate lands and barren hills are on the increase. In 1943, Vietnam had 19 million hectares of forests – most of the dense and rich, accounting for 57% of the total land territory[3]. But in 1993, 50 years later, there remained only 9.6 million hectares of forests – most of them exhausted – that is, 29% of the total land territory. The loss of forests desolate land and barren hills grew from 2-3 million hectares in 1943 to about 12 million hectares in 1993. Because of the loss in forest cover, erosion takes an annual toll of over 10 million m^3 of soil in raining season, while the water level of rivers and lakes keeps going down in dry season. Over recent years, thanks to forest preservation and afforestation programs, the area of various types of forest has increased to some extent, but forest cover remains below the standard safety level.

II. HISTORICAL LEGACY

As the future development of rural Vietnam is related to both the present and the past, it is necessary to make an overview of the main points in the historical legacy, i.e., the factors which have left a deep imprint on social institutions, land distribution system, production organization, psychological characteristic, etc. of the peasants which today's policy-makers must

[3] 43.8%, according to other sources.

take into account while designing plans and projects at the macro and micro levels.

1. Social institutions

A salient feature of the traditional social institutions of Vietnam is the organic coherence of the family, village and nation.

Family: Since the beginning of the AD era, families of the Vietnamese Kinh ethnic as well as those of a number of other ethnic minorities in North Vietnam have been nuclear patriarchal families with the exception of a number of ethnic minorities (such as those in the Central Highlands) which still maintained extended matriarchal families until recently. Statistical data of the Han dynasty of China show that Au Lac (that is, ancient Vietnam) which was then divided into 3 parts: Giao Chi (North Vietnam), Cuu Chan (northern part of Central Vietnam), Nhat Nam (central part of Central Vietnam), and had 143,643 households and 981,735 inhabitants, that is or average 6 persons per family household[4]. With such a size, families might involved mainly 2 generations – parents and children – and in some cases 3 generations – grandparents, parents, and children.

[4] *Lịch sử Việt Nam* (Vietnam's History). Vol. 1, Social Sciences Publishing House, 1971, p. 79.

The small family was both a fundamental cells of the society and a production unit, which was quite consistent with the traditional wet paddy civilization. Wet paddy cultivation requires the farmers to closely look after the whole production process – from ploughing, harrowing, irrigation and drainage, planting and replanting, weeding, to harvesting. The family household was able to meet these demands, as it could make the most of the natural division of labour in terms of gender and age among all its members, and could use efficiently the manual farm tools and draught animals.

This is reflected, among other things, in the following saying which is common in rural areas.:

"*Above is shallow fields and below is deep ones*",

"*The husband ploughs, the wife transplants paddy seedlings, while the buffalo pulls the harrow*".

Village: Having said that, in view of its climatic conditions, Vietnam often faces drought during the dry season, floods and typhoons during the rainy seasons. As a result, it is hardly possible for small families to do agricultural production to sustain their livelihoods.

Consequently, many small families had to get together to live in a selected area to cultivate land. Usually, they worked together to reclaim land, dig canals and dredge river in order to water and drain the

paddy fields, to organize their living, and thus they later formed villages.

As an evidence of this, in the old Vietnamese language, "village" was also called "*chạ*", which means, together. Scientifically defined, a village is a "rural community", a group of people based mainly on neighborly relations rather blood ties. In other words, village inhabitants do not necessarily belong to the same family clan, but are usually drawn from some different family clans. Until today, in the midlands and delta of North Vietnam, many villages still have such names as Dang Xa, Nguyen Xa, Trinh Xa ... (that is, village of the Dangs, the Nguyens, and the Trinhs). But even such villages nowadays comprise other family clans.

Like other oriental rural communities, the Vietnamese has a dual character in terms of land ownership: formally, land – the main means of production – belonged to the State (that is, "*Công Điền*", "*Công Thổ*", or public land) or to the whole village. On the other hand, the land was periodically distributed (once every 3 to 5 years) to all the families in the village to cultivate. Part of the crop had to be delivered to the State in the form of tax and contribution to the village fund, while the remaining food crops, animals reared by the family, handicrafts production, tools, houses, etc. belonged to each family.

This dual character was the deep influence which led to differentiation and polarization within the rural communities.

After a period of time, as and when the number of households in the village exceeded a certain limit, a new and separate village was set up, involving the division of public land. But a number of villages were set up by reclaiming new lands, particularly in the silted areas along the coast or patches of flat land lying along the valleys in mountains regions.

No matter how it was established, each village had specific borders which separated it from the other villages. The location of the village and its borders were deeply imprinted in the mind of its inhabitants, or were written down in the village rules, and these were subsequently recognized by the State.

Each village had its own management board. In very old time, this board was the Council of Elders, elected by the inhabitants, in which the heads of family clans played an important role. Later, with historical evolution, stratification in terms of property, education and ranks, and intervention from central administration, this board underwent changes both in villages of the Kinh in the plain and of other ethnic minorities in the highlands.

In general, the traditional management board of a Viet village comprised the following[5]:

- *Lý Trưởng* (Village Chief): The *Lý Trưởng* was elected by the village's male inhabitants. With assistants, whom he chose he had the duty to perform all policies and measures laid down by *Hội Đồng Kỳ Mục* (Council of Notables) and carry out all orders given to the village by superior authorities.

- *Hội Đồng Kỳ Mục* (Council of Notables): While nominally elected by the male villagers, in reality, this comprised people who had property, education, and academic, administrative on honorific ranks (for having served as civilian officials at various levels of the administration or military officers, who were retired). It was the decision-making body of the village, which discussed and made decision on all problems relating to the village inhabitants; such as distribution of public land, levying taxes, corvette, military service, devising village rules, holding trials, administering the economic, cultural, social activities in the village and ensuring its security...

During the initial period of French rule in Vietnam – in the late 19th century and the early 20th century – the

[5] See: Nguyễn Từ Chi: *Góp phần tìm hiểu nghiên cứu văn hoá và tộc người* (Contribution to research on culture and ethnic groups). Culture and Information Publishing House, Hanoi, 1996, p. 210.

colonial authorities decided to maintain and use the existing management board of the village to enforce their control. Governor General Paul Doumer remarked: "Thanks to the solid structure of individuals of the Annamese village... we are dealing not with millions of individuals but with only some thousand collectives which are closely organized and have good discipline, and maintain contact with us as bloc units. Thus, we only need to know one organ, the Council of Notables"[6].

Later, in order to strengthen further their control over the villages, the French rulers successively implemented a number of reforms called *"Rural reforms"* at various points of time and with variations in Cochinchina (South Vietnam), Tonkin (North Vietnam) and Annam (Central Vietnam), according to their "device as to more easily rule" policy.

Once, in Tonkin, from 1921 to 1927, the existing *Hội Đồng Kỳ Mục* (Council of Notables) was disbanded and replaced by the *Hội Đồng Tộc Biểu* (Council of Representatives of Family Clans), elected by family clans in the village for specific terms. However, facing strong reactions from the old village notables who

[6] Paul Doumer: "La situation de l'Indochine de 1897 à 1901" quoted in *Nông thôn Việt Nam thời cận đại* (Rural Vietnam in Contemporary Times). Vol. 1, Institute of History, Social Sciences Publishing House, Hanoi, 1985.

enjoyed high prestige and had considerable clout in rural areas, the French authorities had to gradually bring back the *Hội Đồng Kỳ Mục* system. At first, the *Hội Đồng Kỳ Mục* was reestablished as a consultative body to the *Hội Đồng Tộc Biểu*; and later, *Hội Đồng Kỳ Mục* came to fully replace the *Hội Đồng Tộc Biểu* in discussing and settling all matters in the villages, as was previously the case.

In areas where ethnic minorities live, the village (called "*Bản*") management board usually comprised:

- *Trưởng Làng, Trưởng Bản* (Village or *Bản* Chief) who was either elected by the villagers or ruled on a hereditary basis, depending on the customs prevailing therein.

- *Hội Đồng Già Làng* (Council of Village Elders) comprising male villagers who had reached a certain age as prescribed by the customs. This body discussed various problems of the village and tried to achieve consensus decisions to be implemented the village inhabitants headed by the Village Chief.

Following the August 1945 Revolution victory which overthrew the colonial and feudal rule, the village traditional administrative board was disbanded and replaced by a new one comprising the Commune People's Council and the Commune People's

Committee, both elected by the inhabitants and serving for specific terms. The Commune (called *Xã*) became the grassroots administrative unit comprising several villages which were officially referred to as "*Thôn*".

This change was more or less strictly enforced in the areas inhabited by the Kinh (alias Viet). However, in the areas where the ethnic minorities lived, a new management board was established, and the village elders and the village chiefs continued to enjoy high prestige and play an important role, even until today.

The village was not only a grassroots administrative unit, but was also a unique economic, cultural and social community. Each village was basically an autarkic economic unit. While agricultural production was the root occupation which enabled the people to meet essential demands in food and foodstuffs (rice, subsidiary crops, vegetables, meat, fish...), each village also had a number of trades, such as cloth weaving, blacksmith, bamboo plaiting, masonry, carpentry, etc., which helped meet the demands of production and daily life. Later on there gradually appeared a number of villages specialized in cloth weaving, blacksmith trade, bronze casting, paper making, picture painting, Chinese script teaching, and herbal medicines treating, etc, but such professions usually remained sidelines to agricultural production. Villages exchange goods on

periodic market days, yet this did not play a dominant economic role.

Trade was not strong enough to bring about major trading centres with highly specialized craft-guilds which could be independence from agriculture, as was the case in the West. Until the middle of the 19th century, Vietnamese towns were still mainly administrative centres, sometimes also military centres, each with a fortress surrounded by ramparts, while the outer apart was a market where peasants from the outlying areas could sell their excess products (farm products and handicrafts). From the 16th to the 17th centuries, when traders from some Western countries And Asian countries (Holland, Portugal, Japan, China, ...) came to Pho Hien and Kinh Ky for trade, the goods bought by them (silks, ceramic and pottery, lacquer wares, inlaid works) were mostly made and brought there by agricultural villages concurrently engaged in handicraft trades.

As an autarkic economic unit, each village was also a cultural and social unit. Every village had its on temple, pagoda and communal house. The temple was dedicated to the worship of the tutelary genie, who was usually a national hero, a handicraft trade founder, or a founding father of the village itself. The communal house was a place where villagers held meetings,

performed rituals and ceremonies, and festivals. The pagoda was dedicated to the worship of Lord Buddha, a religion brought to Vietnam many centuries ago from India, and practiced by a majority of Vietnamese people. Later on, when Confucianism came into the country, a number of villages also had shrines dedicated to Confucius and to their own literary figures and degree holders.

Each village set up its own school, and had its own cultural and folk-arts activities, with s store of popular saying, folk songs, historical legends and others, funny stories, theatrical performances, paintings, sculptures, and architectural works. Most of these cultural items, either physical or spiritual, were partly absorbed from the national cultural heritage, and partly were created by the people in each village and the neighboring area.

These cultural and social activities were financed first by the cultivation of public land and, second, by villagers' contributions - voluntary or according to village rules.

As mentioned above, public land in each village was distributed to all villagers aged from 18 to 60 to cultivate (*quốc gia công điền, công thổ quân phân*). In addition, a part of this land was allocated to cultural and social activities, under the title of "*bản thôn điền thổ*"

(local land), which generally comprised the following, subject to specific conditions each village:

- "*Lương điền*": land allocated to demobilized armymen on their return to a civilian life in the village.

- "*Học điền*": land used for financing teachers who provide education to children of the villagers.

- "*Thần điền, tự điền*": land allocated to persons who looked after the temples, pagodas, communal houses, and performed rituals and ceremonies therein.

- "*Hậu điền*": land donated by childless persons to the villages which would perform ceremonies on their death anniversaries.

- "*Lão điền*": land allocated to male inhabitants aged over 60 so that they could enjoy their old age.

Many villagers also allocated a part of their land provide food and shelter to orphans, handicapped persons and to help widows in bringing up their children.

Each village had its own rules which in essence involved customary laws that were laid down a long time ago, and which were passed on orally to successive generations, and later put in writings as Village Rules.

In the late 15th century, King Le Thanh Tong promulgated a law designed to institutionalize the formulation of Village Rules, which from then on were

enforced on an increasingly widespread basis. Village Rules were the product of discussions held among the elder villagers, notables, officials, and other inhabitants of each village. They contained regulations and criteria on how village affairs would be run, the pbligatios, rights and interests of each organization, and how villagers should be dealt with.

Villagers strictly and voluntary abided by the rules of their respective villages. In many cases, they gave more respect to their village rules than to the Laws of the State, as evidenced by a popular saying. "*Phép vua thua lệ làng*" (The village customs prevail over the King's law). This old reality of rural Vietnam has left a deep imprint on the mentality and behaviour of Vietnamese even nowadays.

With respect to ethnic minorities, the "*customary law*" (*luật tục*) of each ethnic group is also given greater respect, and is even regarded as sacred, and as an absolute legalism for each member of the group concerned.

In short, the Vietnamese village is a social institution that has existed for thousands of years and each village leads a separated and relatively independence life.

Yes, as different from traditional rural communities in India and Russia, the Vietnamese village is not fully closed and isolated form the outside world. Due to geographical, economic and social conditions and a unique historical process, each Vietnamese village maintains periodic and non-periodic contacts with other villages in a certain area, as well as with other areas in the country.

Country: As a country with mountains and hill accounting for three-fourths of its territory, and with a dense network of rivers whose water discharge during the rainy season is several hundred times bigger than during the dry season, the population has high stakes in maintaining flood control and irrigation, which must also be dealt with at the regional and national level, rather than within the confines of each. It has been observed by Vietnamese that "no *river flows through only one commune, no flood affects only one commune and no drought affects only one hamlet*"[7].

Indeed, it was imperative for Vietnamese to work together in constructing dykes to prevent floods, in digging canals and dredging rivers to bring water into the fields. In addition, it was even more imperative to

[7] Institute of Economics: *Ảnh hưởng của các yếu tố truyền thống đối với tổ chức sản xuất nông gnhiệp* (Organization of Agricultural Production). Social Sciences Publishing House, 1991, p. 9.

rally all forces, irrespective of age and gender, in the highlands as well as in the flat lands to protect the homeland of the community and the peaceful life of all inhabitants against hostile forces aiming to conquer the country, rule over and assimilate the people.

In view of these two reasons, one can understand why some 3-4 thousand years ago, 15 Lac Viet tribes voluntarily came together and set up the Van Lang State with the well-known Red River Delta wet paddy civilization. As a result, the Vietnamese nation came into existence at a very early period, not having no wait for the emergence of capitalism as was the case with many other nations.

2. Land system

A constant feature of the ancient and medieval history of Vietnam was the dual land ownership of the centralized monarchy and the village.

Conscious of its duty to daily organize the people in building dykes and other major irrigation projects, and to strengthen national defenses against foreign invaders, the centralized monarchy, with the King as its symbol and chief, proclaimed itself as the supreme owner of all the and, mountains and forest of the country. Vietnam's King, however, were not the biggest landowner, as was the case with Kings and Lords in the West during

medieval times, but was mainly the symbol of the State. The land subjected to the supreme ownership of the King was called "*public land*" (*công điền, công thổ*) and also include "*quân điền, quân trại*", that is, land administered by royal officials.

As the supreme owner of the land, the feudal State set the following obligation for the people:

a/ To pay taxes, that is in essence, to pay rents with respect to the public land which was cultivated by each villager.

b/ To participated in corve- public labour - designed mostly to construct dykes for flood control, or to dig canals and dredge rivers with a view to providing water to and draining water for large areas of the country.

c/ To join the army in order to defend the country and ensure general security and order for the community.

But the village exerted direct control over the land located in the village.

As mentioned above, each village rallied a number of family households that work together to reclaim land and establish a site for them to occupy and cultivate. As such, it is reasonable that each village might directly manage and exploit the land within its confines.

According to customary law laid down in village rules, public land, which was also the common property of the village, was distributed to households to cultivate, in accordance with the following principles" per capita distribution to male villagers form the age of 18 to 60, re-distribution after a period of 3 to 5 years so as to take into account population changes (increase or decrease) in various family households and in the village as a whole.

The overlapping land ownership and the "dual" management and exploitation of public land within each village did create many loopholes to turn public land into private land:

- As the supreme owner of the land, the centralized monarchy and its successive dynasties allocated public land to high court officials on a hereditary basis.

- A number of peasant family households who grew rich in the process of production and exchange of goods, brought public land which thus became their private property.

- In the process of land distribution and redistribution, the village authorities - members of the *Hội Đồng Kỳ Mục* (Council of Notables) and Village Chiefs... - took advantage of their positions to seize

plots of land that were fertile and had good access to irrigation water. Thus, after a certain period of time, a part of the public land became private land.

"*Listen to the drum-beating in the pagoda*

Well-connected people have manipulated to turn public land into private property".

This popular saying encapsulates the reality about the distribution of land and welfare funds in the countryside before. This has been indeed, an enduring practice, which lingers on even today. As a result, shrinkage of public land, enlargement of private land became a continuous and steady process.

Yet, public land ownership of the State and the village went on for a long time in Vietnam, in contrast to other countries in the region. For example, in pan, almost all public lands have been private land since the 14th century. In Vietnam, until the middle of the 19th century, among 29 provinces of the country, 2 provinces had more public land than private land, 1 province had as much public land as private land, and 26 provinces had more private land than public land[8]. The decrease in the area of public land compelled a number of peasants

[8] Vũ Huy Phúc: *Tìm hiểu chế độ ruộng đất Việt Nam nửa đầu thế kỉ XIX* (Studying the Land System in Vietnam during the First Half of the 19th Century). Social Sciences Publishing House, Hanoi, 1979, p.227.

to migrate. To remedy the situation, the Nguyen Court returned to the villages a number of plots of land previously allocated to high court officials or land reclaimed by the army, and requested rich persons to donate three-tenths of their land to the fund of public land, obviously with the aim of maintaining economic and social stability in the countryside, a prerequisite for stability of the feudal regime.

From the end of the 19th century to the middle of the 20th century, due to the impact of French colonial policies, the process was further stepped up, and a substantial amount and the indigenous landowning class. According to statistical data released by French scholars, the situation was as follows: from 1858 (beginning of French invasion) to 1912, the French colonial rulers seized 469,724 hectares of land[9]. Ten years after World War I, these figures rose to 775,7000 hectares, with the following breakdown: Tonkin (104,000 hectares), Annam (168,400 hectares), and Cochinchina (503,300 hectares)[10]. Thus, by the end of the 1920s, the total amount of land appropriated by the French colonial it was over 1.2 million hectares,

[9] H. Brenier: *Essai d'atlas statistique de l'Indochine Francaise*. Hanoi - Hai Phong, 1914, pp. 196, 197, 202.

[10] Y.Henry: *L'Économie agricole de l'Indochine*. Hanoi, 1932, pp. 223-224.

accounting for one-fourth of the total cultivated area in Vietnam at that time.

One can say that it was a consistent policy of French colonial rulers to appropriate and, and separate Vietnam's laboring peasants - who accounted for 90% of the population - from their basic means of production. The appropriated land was turned into large French plantations which, in the 1920s, numbered 155, in Tonkin alone, each having an area of 200 hectares and more. In particular, some of these plantations had very large land area: 11 with over 500 hectares each; 4 with over 600 hectares each; 5 with over 700 hectares each; 1 with over 800 hectares; 5 with over 900 hectares each; 9 with over 1,100 hectares each; 7 with from 1,200 to 1,500 hectares each; 2 with from 1,500 to 2,500 hectares each; 3 with from 3,150 to 3,759 hectares each; 1 with over 4,100 hectares; 1 with 5,500 hectares; 1 with 6,900 hectares; 1 with 7,500 hectares; 1 with 8,515 hectares[11]. In Annam, prior to 1926, 62,000 "*mẫu*" of land were seized by the French colonialists. (In Annam one *mẫu* is equivalent to nearly 0.50 hectare); after 1926, additional land seizures were made: 1,982 *mẫu* in Thanh Hoa province, 35,426 *mẫu* in Nghe An province, 17,076 *mẫu* in Nha Trang province, 13,474 *mẫu* in Phan Thiet

[11] *Complete Works of Ho Chi Minh.* Vol.2, Truth Publishing House, 1981, pp.263-264.

province, 92,000 *mẫu* in Kon-Tum province, 76,000 *mẫu* in Dong Nai province[12]. In Cochinchina and the Central Highlands, many French had plantations with an average land area of over 10,000 hectares each.

Of these, paddy plantations had, in 1930, a total area of 285,900 hectares (with Cochinchina accounting for 253,400 hectares). The French owners were not interested in paddy production; or applying new and improved methods of production. They merely carried on the old pattern of feudal exploitation, that is, renting land to the very peasants they had dispossessed and collecting land rents at harvest times.

In some plantations in the eastern part of Cochinchina and in the highlands of Southern Annam were devoted to the production of rubber, coffee, tea and a few other industrial crops.

Thus, the total appropriated land amounted to over 1.2 million hectares, with paddy plantations accounting for 285,000 hectares, and industrial crops for 120,000 hectares. Over 700,000 hectares remained uncultivated, including hundreds of thousands of hectares of forest land the new owners of which "only had the trees cut and sold, pocketed the money and then went back to

[12] *Complete Works of Ho CHi Minh.* Vol. 2, p. 242.

France for a rest... without caring about replanting the destroyed forests."[13]

While French plantations devoted to industrial crops grew rapidly following World War I, they only accounted for 2.5% of the total cultivated area in Vietnam. The output value of rubber was only equivalent to 1/80 of the output value of paddy. Coffee, tea, cotton... *"played on almost subsibility role in the economy."*[14] Big-scale livestock breeding had not come into being backwardness thus remained the salient features of Vietnam's agriculture.

Alongside this, French colonial exploitation and rule also resulted in the increased concentration of land in the hands of the indigenous class of landlords.

A number of decrees on land allocation issued by the Governor General of Indochina in 1913, 1918, 1926 and 1929 and the lending policy of the Land Bank gave priority to the rich strata8 in the countryside. The colonial administration's policy of increasing direct and indirect taxes hit mainly the poor people. These economic and non-economic factors resulted in the impoverishment and bankruptcy of many peasant

[13] *Complete Works of Ho Chi Minh.* Vol.2, p. 57.
[14] P. Bernard: *Le problème économique Indochinois.* Paris, 1934, pp. 10-11.

families whose land fell into the hands of the class of landlords.

The degree of land concentration varied from one locality to another.

In Cochinchina: According to Yves Henry, Chief Inspector of Agriculture of French colonies, there were, in 1930, in 14 main paddy producing provinces of Cochinchina, some 90,285 landowners who rented land to tenants or used hired labour in agricultural production. Of these, 3,623 had each from 50 to 100 hectares, 2,449 from 100 to 500 hectares, and 244 from 500 hectares and more. Thus, 6,316 big landlords, that is 2.5% of the total number of landlords in these 14 provinces, held 1,035,000 hectares of land, that is, 45% of the total area of land controlled by all these landlords[15].

In Tonkin: Also according to Yves Henry, there were, in 18 flatland and midland provinces of Tokin, 12,005 landowners who rented land to tenants or used hired agricultural labour. Of these, 180 that is 0.2% of all landowners, had 50 hectares of land and more, thus accounting for 20% of the landowners by all them. Another 1.8% of landowners, had each from 5 to 50

[15] YvesHenry: Ibid., pp. 182-183, 212.

hectares of land, thus accounting for about 20% of the land area[16].

In Kim Son, Bui Chu, Phat Diem area land in dozens of villages was owned by Catholic priests, French or Vietnamese. This came as a result of loans given to peasants by the Church, with the insolvent debtors having to surrender their land to the creditors. In this way, land owned by the Church continued to expand, and these areas looked like fields of the feudal lords in Medieval Western countries.

In Annam: In the coastal provinces (not including the Central Highlands) there were 68,471 landowners who rented land to tenants or hired agricultural labour. Of these 50 (0.8%), owned each 50 hectares and more, all in all about 80,000 hectares, that is, 10% of the total land area. Another 8,900 landowners, (1.35%), owned from 5 to 50 hectares, or all in all 120,000 hectares, that is, 15% of the total land area.[17]

As both the result and the cause of the bankruptcy of the small agricultural economy, the development of the feudal land ownership system during this period also contributed to further weakening the public land system – a remnant of the economic structure of Vietnam's rural community. In 1930, in the delta and midlands of

[16] Yves Henry: Ibid. pp. 108-109, 212.
[17] Ibid., pp. 144-145, 182-183.

Tokin, public land accounted for 20% of the paddy-cultivated area, while the ratio was 25% for Annam and 3% for Cochinchina. Nation-wide, public land only amounted to 500,000 hectares, that is, around 10% of the then cultivated area.

Until August 1945, the landlord class, which accounted for less than 4% of the landowners, controlled over 50% of the cultivated land area, while peasant households, which accounted for over 90% of the landowners, held only 40% of the cultivated area[18]. In addition, 2.2 million rural households – out of a total of 4 million rural households – were landless.

As the bulk of land was concentrated in the hands of French plantation owners, the Church, and the indigenous landlords class, per capita land availability to peasants – including poor and middle peasants – was very low.

In Tonkin: In 18 delta and midlands provinces of Tokin, 594,091 persons, that is 61.6% of all landowners, had each less than 1 *mẫu* of land (one *mẫu* of land in Tokin is equivalent to 0.36 hectare) while 287,792 persons, that is 29.8 of all landowners, had each from 1 to 5 *mẫu* (about 0.36 to 1.8 hectares).[19]

[18] Public land accounted for over 10% of cultivated land
[19] Yves Henry: Ibid., pp.108 - 109.

In Annam (not including the Central Highlands): 449,391 persons, (68.5% of all the local landowners), had each less than 1 *mẫu* of land (in Annam each *mẫu* is equivalent to 0.50 hectare), while 165,351 persons (25.3%) had each from 1 to 5 *mẫu* of land (0.50 to 2.5 hectares).[20]

In Cochinchina, there was less; and gramentation than in Tonkin and Annam, yet in 14 provinces under review, 85,931 persons (33.6% of the total of local landowners) had each less than one hectare , while 97,060 persons (38%) had each from 1 to 5 hectares[21].

Due to land shortage, a number of families, mainly poor and lower middle peasants, had to work as tenants for landlords, while landless peasant as hired agricultural labour.

The tenant had to toil, and to bear all the costs relating to agricultural production, and at the end of the harvest to surrender to the landlord one half to three-fourths of the crop. In addition, they had to pay supplementary rents for buffaloes, water, farming implements etc. As a result, after paying rents, tenants had very little left, as evidenced by the following saying: "*Once you hang up the sickle, you also have to hang up your cooking pot*". This is an apt description of

[20] Ibid.
[21] Ibid.

the plight of peasants, during that period. As they faced many lean months, or had to pay taxes to the colonial authorities, many poor peasants were forced to resort to high-interest loans, which ultimate resulted in selling their last plot of land or garden, even their house and children.

With such heavy taxes and rents, the peasants could not ensure their livelihoods, and thus could hardly think of improving land cultivation.

Land was fragmented[22] and farming implements were as backwards as they had been thousands years ago. Most were made of bamboo, wood, and very few in metal; they were heavy, manpower consuming and not durable. Draught animals were used to pull the plough and harrow, but often the peasants had to do this job, as they could not afford buffaloes or cows. Similar backward methods were also used with respect to preparation of paddy seedlings, transplanting, weeding, maturing, irrigating the field, harvesting, threshing and husking paddy. In the highlands where the ethnic

[22] Case studies were carried out in this connection in 2 communes of Bac Nin province over recent years. They show that in the mid-1930s, each hectare of land had, on a average, 14 plots of land, each of which was equivalent to 0.068 hectare. The whole Bac Ninh province had 102,000 hectares of land, which were divided into 1.5 million plots of land. See also P. Gourou: *L'utilisation du sol en Indochine Francaise.* p. 227

minorities lived, the farming implements were even more rudimentary and primitive.

Worse still, the colonial policies of trade monopoly of price gaps in favor of industrial goods against agricultural products and handicrafts also further exacerbated the plight of rural families.

Meanwhile, the less than developed industrial facilities in the colony could not adequately absorb redundant labour resulting from the impoverishment of the peasantry. While labour employed in plantations, mines and other industrial enterprises was on the rise, they accounted for a very small ratio of the unemployed rural labour force. And in many cases, they involved terrible working and living conditions in the mines and plantations which compelled the unfortunate peasants to return to their native villages from which poverty had driven them away. Thus, the depressed and hopeless conditions of redundant laborers in rural Vietnam continued to be aggravated with every passing day.

Serving this situation, a French female journalist, Andrée Viollis, remarked that the Vietnamese peasants "*must rebel or die*"[23].

[23] A.Viollis: *L'Indochine SOS.* Paris, 1949, p. 97.

Chapter III

THE UPS AND DOWNS OF VIETNAMESE AGRICULTURE AND RURALITY DURING THE DECADES BEFORE RENOVATION

I. THE PERIOD OF RAPID GROWTH OF AGRICULTURE FOLLOWING LAND REFORM

In his 1951 doctoral dissertation entitled "*Vietnam's village economy*", Vu Quoc Thuc wrote that the Revolution of August 1945 was "*the first village revolution ever known in Vietnam.*"[1]. This revolution dissolved the Council of Notable, and the Village Authority, which were mainly manipulated by the class of landlords and rural tyrants, and replaced them with the People's Council and People's Committee of the Commune elected by the people for definite terms. It marked a major political upheaved in the countryside. Yet, in view of the specific historical conditions at this time (French colonial reconquest of South Vietnam with British and US assistance, and the occupation of North Vietnam by Chinese KMT troops who acted in collusion

[1] Vu Quoc Thuc: *L'Économie communaliste du Vietnam.* Ed. Presses Universitaire du Vietnam, Hanoi, 1951, p.229.

with local reactionary forces to undermine the newly founded revolutionary power), the Government of the Democratic Republic of Vietnam, instead of implementing basic and deep socio-economic reforms, could only promulgate a Decree on reduction of land rents, the abolition of supplementary rents, and postponing debts for the tenants.

Major socio-economic changes only came to rural Vietnam with the implementation of land reforms, first in North Vietnam following the victory of the resistance war against the French in 1954, and then following the liberation of South Vietnam in early 1975 and the subsequent reunification of the country.

In North Vietnam, with the completion of land reforms, from 1954 to 1957, 819,000 hectares belonging to French plantation owners, to the Church and local landlords, as well as public land, were distributed to 2.1 million peasant households. This brought about a complete change in land ownership structure and in the social structure of rural North Vietnam, as reflected in the following tables.

***Table 1*: Land distributed to rural households**

	Land distributed (from 1945 to the completion of Land Reform)		
	Recipient households (thousand households)	Land area distributed (thousand hectares)	Average land area distributed to each household (in m2)
Total	2,104.1	810.0	3,848
Landless peasant	416.0	170.4	4,095
Poor peasants	1,059.8	440.4	4,155
Middle peasants	539.6	179.0	3,317
Other working people	88.7	20.2	2,240

***Table 2:* Per- capita land ownership of various types of rural households**

Unit: m2

	Prior to August Revolution (1945)	Following land reform (1957)
Landlords	10,980	730
Rich peasants	4,200	1,720
Middle peasants	1,450	1,710
Poor peasants	472	1,390
Landless peasants	112	1,370

Source: Statistical Yearbook of the Democratic Republic of Vietnam: 12 years of Agriculture Development 1960-1971, Hanoi, 1973, p.58.

During this period, the National Assembly of the Democratic Republic of Vietnam adopted and 8-point Policy to promote agriculture:

- Guarantee of land ownership rights;
- Freedom to hire labour;
- Freedom to seek and provide loans, freedom to hire buffaloes and cows;
- Encouragement to traditional handicraft trades;
- Protections of and encouragement to well-to-do farming households;
- Reward to emulation workers in agriculture;
- Prohibition of sabotage of agricultural production;
- Development of labour exchange and mutual assistance in rural areas.[2]

At a time when land had been given to the tiller, these appropriate correct policies did stimulate the enthusiasm of millions of peasant households, resulting in the rapid post-war recovery of North Vietnam's agriculture and its subsequent comprehensive development with unprecedented growth rates.

In 1959, North Vietnam produced 5.7 million tons of food, twice as much as in 1939, the year with the highest output prior to the Second World War, and up

[2] *Resolution of the 8th Session of the National Assembly* (First legislature of the National Assembly of the Democratic Republic of Vietnam).

by 57.4% compared to 1955. From 1955 to 1959, total agricultural output value increased 11.2% per-annum on average and per-capita food production in 1959 was 367.2kg.[3]

It can be said that these years witnessed the highest agricultural growth, a "*golden age*" indeed for the peasant household economy following land reforms.

II. THE PERIOD OF COLLECTIVIZATION OF AGRICULTURE

For a long time, there had been no thorough examining study the real motives which accounted for the record growth of the peasant household economy following land reform. Starting from an infantile and simplistic understanding of socialism and a dogmatic reading of Lenin's proposition that "*Small production daily and hourly gives rise to capitalism and the bourgeoisie in a spontaneous manner and on a large scale*"[4], our policy markers and several scientists at that time emphasized the necessity to prevent "*class polarization*" in the countryside by immediately

[3] *Five Years of Economic and Cultural Construction.* Hanoi, 1960, pp. 110-116.

[4] This was a statement made by Lenin in 1920, but since April 1921, he switched to NEP (New Economic Policy) thus changing the above viewpoint.

bringing the masses into collective farming[5], not even allowing them time to "think about *their own plot of land*", as stated by Engels.

As a result of a series of ideological and organizations measures combined with a preferential policy in the economy and finance towards collective production units all the provinces in North Vietnam brought 2.4 million peasant households (85% of all peasant households) into low-level cooperatives which managed 65% of the total cultivated area[6] within a short period of time (mainly from the end of 1959 to end 1960).

These quantitative indicators were often cited as "*eloquent*" proof of the victory of collective farming. But one important point was not mentioned: the food output declined down by over 1 million tons from 5.7 million tons in 1954 to 4.69 million tons in 1960. Whenever the points was made, the refuting argument was usually as follows: This is a normal phenomena which attends this process of "*revolutionary change*" from individual to collective farming, and it is partly

[5] Trần Phương: *Một số ý kiến về chủ nghĩa tư bản ở nông thôn miền Bắc sau cải cách ruộng đất* (Some views on rural capitalism in North Vietnam immediately following land reforms.) The Truth Publishing House, Hanoi, 1960.

[6] Low level cooperative involves pooling of land by members for joint of work points of individual members, working points of buffaloes and cows and party on the basis of the amount of land contributed by each member.

due to the "*half-socialist*" character of low-level farming cooperatives.

Therefore, the logic of the argument was that, it was essential to accelerate the transition from low-level to high-level cooperatives, which involved interventions such as the abolition of product-sharing based on the amount of land contributed, and of the work points of buffaloes and cows contributed by individual members, and a thorough collectivization in terms of land, human labour and draught animals. In such high level cooperatives, each household could only retain 5% of land for "*family subsidiary crop*".

Thanks to vigorous and continuous mobilization over 90% of peasants households had joined the farming cooperatives by 1965 of which 72.1% joined high-level ones. Also, from 1961 to 1965, state investments in agriculture and rural areas increased by 4 times as compared with the previous 5 years.

As a result of the initial enthusiasm of millions of cooperative members and major investments by the State, these years witnessed a movement for the development of rural areas. Irrigation systems were built, providing water to a half million hectares of cultivated land. Development tasks also involved improving the soil, construction of warehouses, paddy drying yards, cowshed and pigsties of the cooperatives,

schools, health stations, and kindergartens. Yet, food output by no means could match the 1959 record figure.

During the next 10 years (1966 – 1975), the country faced an ever-fiercer war of aggression waged by the USA. With the functions of centralized management and regulation the agricultural cooperative were able to provide the front with million of youths and a considerable amount of food and foodstuffs, thus making a worthy contribution to defense of North Vietnam, the liberation of South Vietnam and the reunification of the country.

Yet, from the perspective of economic efficiency, it must by recognized that food yields continued to decreased and were in no way commensurate with the labour input of the peasants or the State investments in agriculture in terms of capital, materials and techniques. Table 3 gives a fairly good idea of this situation.

Because of inadequate food supplies, from 1966 to 1975 North Vietnam had to import average one million tones of food per-annum (at the minimum 380,000 tons in 1966; at the maximum, 1.5 million tons in 1973).

Table 3: **Relationship between invested capital and results of agricultural production from 1966 to 1975**

	Unit of calculation	1961-1965	1966-1970	1971-1975
State capital invested in agriculture and rural areas	Million *dong*	757.3	826.9	1232.0
(Breakdown) investments in irrigation	id	379.1	473.5	644.5
(Breakdown) loans given by the State to agricultural cooperatives and peasants	id	399.8	665.2	1276.1
Total average food output per year (calculated in terms of paddy)	million tons	5,293	5,022	5,580
Per capita food output per year	kg	304.9	1966-1977 252.8	

Sources: 1975 Statistical yearbook, Hanoi, 1976, pp.205-215.

It is noteworthy that the collective system used over 95% of the cultivated area and almost all the working time of the cooperative members, but provided only 30-40% of their total income. And 60% to 70% of their total income actually came from the "*family subsidiary crop*" (on the 5% land) during leisure time.

That was a major and striking paradox for many people. However, the war and the huge subsidies given by the State – which were available thanks to the assistance

received from socialist and other friendly countries – did conceal the stagnation and inefficiency that characterized the old-model agricultural cooperatives.

At this time, analysis by policy makers and leading scientific researchers again led to a conclusion that, the small scale of cooperatives did not creative favourable conditions for a new division of labour characterized by concentration and specialization and essential for a vigorous growth of agricultural production.

The movement of "*reorganization of production, improvement of agricultural management from the grassroots in the direction of large-scale socialist production*" started by a few of pilot schemes in some provinces in early 1974, and then was extended to the whole North Vietnam during the 1976-1980 five-year plan. In essence, this meant expanding the scale of cooperatives: from village or inter-village levels to commune level. Each expanded cooperative set up specialized teams which took charge of one stage in the production process: ploughing and harrowing, seeds, irrigation, plant protection. Other work assignments were given to the existing basic teams of the cooperative.

By 1980, the number of peasant households in each cooperative and the cultivated land area of each cooperative had, increased by 2 to 2.5 times on average

as compared with 1975. State investments in agriculture increased considerably, accounting for 19% to 23% of total State investment in production. However, agricultural output remained almost at a standstill, that is, around 6 million tons of food per year.

Stagnant agricultural production and rapid population growth had reduced per-capita food production in North Vietnam to an unprecedentedly low level thus far from 248 kg (1976) down to 215kg (1980).

A 1979 survey covering 307 agricultural cooperatives in the Red River Delta – where many newly reorganized commune level cooperatives operated showed – the following: the bigger the size of the cooperative, the more concentrated its management functions, the greater the specialization covering distinct links in the production process, the lower the average yield, output and product value per hectare. This is clearly reflected in following table.

Table 4: **Relationship between the size of the agricultural cooperatives and production results thereof in the Red River Delta**

	Unit of calculation	Classification of cooperatives based on size of cultivated area (hectares)		
		30-400	401-500	over 500
- Number of surveyed cooperatives	Coop.	141	90	76
- Average paddy yield/crop year	100kg/ha	22.1	20.09	18.03
- Average food output per hectare	kg/ha	3256	2944	2731
- Average total earning per one cultivated hectare	VND/ha	2685	2179	2055
- Average accumulation per one cultivated hectare	VND/ha	408	86	73

Source: Statistical data obtained from the survey by General Department of Statistics (GDS) in "*Real Socio-economic Situation of Vietnam*" GDS, Hanoi, 1990, p.35.

After 20 years of existence, it is obvious that the model of agricultural cooperatives in North Vietnam was in deep crisis. This model, which no longer had any vitality, should have been quickly reformed. Instead, it was imposed on South Vietnam after national reunification, without due regard to the specific characteristics of this region of the country.

In fact, in the course of the resistance wars against the French and the US aggressions, the Revolutionary

Government in the liberated areas of South Vietnam distributed over 1.3 million hectares of land taken away from the landlords to the peasants. From 1970, in order to win the sympathy of the rural population, the Saigon Government, with US assistance, had implemented a "*Land to tiller program*". With the compensations, they expropriated land from the landlords whose land area exceeded 15-hectares in South Vietnam, and 5–hectares in Central Vietnam and distributed to peasants in the areas under its control. Therefore, by 1975, land ownership by landlords in South Vietnam had been basically eradicated, and the bulk of land was in the hands of the labouring peasantry, while the middle–class peasants had become the central actors in rural areas. Use of agricultural machinery had considerably also increased[7], and commodity production in agriculture had significantly improved, particularly in the delta region of South Vietnam.

Under these conditions, collectivization of agriculture, involving the pooling and concentrated management of agricultural machines owned by individual peasant households, was bound to provoke negative reaction from the majority of the middle-class peasants.

[7] By 1974, 186,000 agricultural machines had been imported by South Vietnam

For these reasons, collectivization of agriculture encountered numerous difficulties in South Vietnam, and particularly in the Mekong River Delta. By late 1979, the Southern provinces had set up 1,286 cooperatives and 15,309 production teams, accounting for 50% of peasant households. By the late 1980, most of these were disintegrating, while the remaining 137 cooperatives and 3,739 production teams had only a formal existence.

Mistakes and shortcomings in the reorganization of agriculture in the North and in promoting collective farming in the South resulted in a serious decline of agricultural production throughout the country. As production could not meet consumption requirements, from 1976 to 1980, Vietnam had to import 5.6 million tons of food. Since agriculture accounted for nearly 50% of total national product, and rural population accounted for 80% of the total population, such a decline in production was bound to negatively affect the general socio-economic situation of the country and vice sersa.

Many causes, both objective and subjective, accounted for this situation. But the main cause lies in the policies on reorganization of agriculture were based on the old perceptions of socialism which regarded rapid and thorough collectivization of land production

tools and labour as prerequisites for taking the peasantry along the path of large-scale socialist production. Yet, reality proved the opposite, that wishful, hasty, and coercive collectivization, a centralized management mechanism and egalitarian distribution of earnings, would inevitably erode the peasants' tradition, turned them from being motivated to work with land to being utterly indifferent, In fact, collective ownership had been turned into "nobody's ownership". The end result was a stagnation of agriculture and an ever – more difficult life for the peasantry.

A different interpretation came from a number of theoreticians in the West and in the former Soviet Union, who asserted that the failure of collective agriculture in Vietnam and in many other socialist countries should be ascribed to the economic doctrine of Marxism. In fact, Marxism is not to blame for the hasty imposition of collective farming on the peasantry. In fact, Karl Marx warned that wishful and hasty abolition of the small ownership system of the peasant households, in disregard of the development level of the productive forces, culture and civilization, may only lead to a "crude communism". According to Marx, "*such a crude communism is only the consummation of jealously and equalization based on the concept of a certain minimum... Such an abolition of private*

ownership... is the abstract negation of the whole world of culture and civilization, and a return to the unnatural simplicity of poor and needless people... who not only cannot surpass the level of private ownership, but even cannot reach that level."[8]

In general, collectivization of agriculture in Vietnam from the end of the 1950s to the end of the 1970s was not a normal process based on the requirements of the situation and the high-level socialization of the productive forces. In fact, it violated the principles of free will, democratic management, and mutual benefit which characterize the civilized system of cooperatives. It also negated the vested interests of the labourers, which are the most important motive force behind the growth of production.

In consequence, there were times in North Vietnam when ripe paddy was left unharvested, while cooperative members engaged in petty trade to earn their living or migrated to other areas for the same purpose. In the South, particularly in the Mekong delta, many peasants reacted to pressures designed to make them join the cooperatives and production teams by saying that "*if we have to get in, we will not go out*", which means that if they must join the cooperatives or

[8] Karl Marx: *An economics and philosophy manuscript, 1844.* Truth Publishing House, 1962, p.126.

production teams, they will not go out to work in the fields!

Such an abnormal situation could not go on forever. In the end, a new way was blazed out.

III. THE PERIOD OF READJUSTMENT OF SOME POLICIES CONCERNING AGRICULTURE AND RURAL AREAS

The impasse besetting the reorganization of production in agricultural cooperatives in the North, the massive disintegration of cooperatives and production teams in the South, and particularly in the Mekong River Delta, and many other negative indications of a forthcoming socio-economic crisis in the late 1970s required the Party and the Government of Vietnam to re-examine the objective of "*basically completing the socialist transformation in the South*"[9] during the 1976-1980 five-year plan.

The 6th Plenum of the CPV Central Committee held in September 1979 recognized the natural existence of the multi-sectoral economy, encouraged the development of the family household economy, supported the stabilization of the legations in food procurement, changes in the tax level, and freedom in the distribution and trading of agricultural products to

[9] Communist Party of Vietnam: *Political Report to the Fourth National Congress.* Truth Publishing House, Hanoi, 1977, p.73.

facilitate growth of production. With the adoption of such measures, the 6th Plenum indeed marked the beginning of a new conceptualization process with respect to the transition to socialism and the readjustment of policies concerning the socio-economic development in the whole country and, in particular in rural areas.

Previously, in 1967 and 1968, some agricultural cooperatives in Vinh Phu province sought to improve things by adopting a contract system. They became the targets of criticism and an end was put to their experiment. In the mid-1970s, some cooperatives in Hai Phong secretly implemented a similar scheme. These experiments were subsequently recognized by the Secretariat of the CPV Central Committee which recapitulated them and diffused the model to the whole country through Instruction No.100/BBT dated January 13, 1981 on "*Products contract to groups of labourers and individual labourers*", or "*Contract 100*" for short.

A motive force of "*Contract 100*" is that the labouring peasants, (in essence, the family households of the members of the cooperative), were now directly in charge of 3 links in the process of agricultural production which are connected with the final product: to plant and transplant, to manure, and to harvest. The other remaining 5 links – ploughing and harrowing

supplying seeds, irrigation, combating pests and insects, and protecting the fields – were still entrusted to the cooperatives. Thus, the peasants were only partly liberated, but even that partial emancipation did stimulate them and their families to invest money, materials and labour in intensive cultivation of the plots of land allocated to them achieved outputs level that were higher than the ceiling laid down by the cooperatives.

In addition, the Government also adopted new policies on the allocation of agricultural and forests land to cooperatives in the highlands, and new readjustments concerning the collectivization of fishermen in the coastal areas.

At the macro management level, readjustment in the investment structure started with a shift from "*priority given to the rational development of heavy industry*" to "*agriculture as the first front-line*"[10] with more favourable conditions created for its development. As a result, during the 1981-1985 five-year plan, average annual food output reached 16.9 million tons as against 13.35 million tons during the 1976-1980 period.[11] As the average annual food growth rate could surpass the

[10] Communist Party of Vietnam: *Documents of the 6th National Congress*. Vol. I, Truth Publishing House, Hanoi, 1982, p. 62.
[11] General Department of Statistics: *Statistical Year Book*. 1986, Hanoi, 1982, p. 62.

population growth rate, average nation-wide per capita for production went up from 268 kg/year in 1980 to 304kg/year in 1985.[12]

However, following 5 to 6 good annual crops marked by great enthusiasm on the part of the peasants, the initial impact of "*Contract 100*" gradually wore off. The root cause was that the old concept about collective agriculture remained unchanged. The subsidy-based bureacratically - centralized management system was condemned but was still left in charge. A general trend among cooperative-managing boards was to steadily raise the contract ceiling and restore their control over more stages in the production process under the pretence of preventing "*full contract*" and strengthen the collective funds.

A survey of 23 agricultural cooperatives in Thai Binh province showed that during the first 5 crops that followed "*Contract 100*", agricultural output surpassed that contract ceiling by 32-35% (Spring crop) and 24-25% (Summer crop). But, in the process, as the contract ceiling was continuously raised, the gap was steadily narrowed down. Again, farmers' benefits were reduced, causing many to return the allocated land to the cooperative-managing board, a phenomenon which soon

[12] General Department of Statistics: *Statistical yearbook*. 1986, Hanoi, 1982, p. 62.

became common in almost all provinces of North Vietnam. In South Vietnam, the readjustment of various plots of land in a wanton and leveling-out manner for the purpose of "*basically completing the collectivization of agriculture*" caused new tensions in the rural areas.

An official in charge in An Giang province remarked: "*These numerous readjustments caused considerable damage to productive forces. In 1986 the cultivated area in this province was reduced by 40,000 hectares, and as a result, the number of persons affected by hunger rose to over one hundred thousand. Angry peasants submitted individual complaints and, thereafter, came in groups to the office of the Provincial Party Committee, the Provincial People's Committee, the Inspection and Control Committee... and even to representative offices of the Central Government in Ho Chi Minh City to lodge complaints.*"[13]

Meanwhile, the accumulated impact of mistakes committed during the successive price readjustments, and particularly the serious mistakes of the general readjustment of price-wages-money and the change of bank notes in September 1985, dealt a heavy blow to the whole economy. The socio-economic crisis, then in the

[13] Tô Thành Tâm: "*Vấn đề ruộng đất và hợp tác xã nông nghiệp ở An Giang*" (The land question and agricultural cooperatives in An Giang province), *Thông tin lý luận* (Information and Theory), Journal, No.8, 1990, p. 20.

process of easing up, from 1981 to 1985, became intense again.

In the whole society, the main features of other new crisis were as follows: stagnation and decline of industrial and agricultural production, galloping inflation, soaring prices, increasingly difficult living conditions for the labouring people, widespread rent-seeking and illegitimacy, deteriorating ethics, a sense of malaise, and uneasiness and discontent among the population.

It was thus imperative to find coherent and efficient solutions in order to bring the country out of the crisis.

Chapter IV

THE SOCIO-ECONOMIC IMPACT OF RENOVATION AND RURAL DEVELOPMENT

I. ACHIEVEMENTS IN TEN YEARS OF RENOVATION AND PROBLEMS ARISING IN RURAL DEVELOPMENT

From late 1985 to the end of 1986, the socio-economic situation in our country became so acute that the majority of people in the lower income strata found it impossible to sustain the same life, and at the higher level, the Party and State leading organs clearly realized they could not retain the same mechanisms and policies, or adjust only certain policies in isolation.

Confronted with the urgent needs of the nation, and the contrasting development trends in the world, ***the VIth National Congress of the Communist Party of Vietnam*** (December 1986) made a serious self criticism concerning "*the serious errors in several major lines and policies*" in the past[1] and revised perceptions on a range of theoretical viewpoints in regard to socialism, through

[1] Communist Party of Vietnam: *Documents of the VIth Party National Congress*. Hanoi, 1987, p.123.

which to work out a line of comprehensive national renovation.

The essential contents of this line were as follows:

- To shift the centrally planned, bureaucratic, and subsidy-based economy to a commodity, multi-sectoral economy with State management and a socialist orientation;

- To democratize the social life, and build a rule-of-law State of the people, by the people, and for the people;

- To implement an open door policy and promote cooperation and relations between Vietnam and all other countries in the world community in the spirit of improving amiable relations for peace, independence and development.

In the course of renovation, numerous institutional reforms have been carried out, a turning-point of which for agricultural and rural development was ***the Party Politburo's Resolution 10*** *(April 1988)* ***on Renovation of management over agricultural economy*** *(abbr. Contract 10),* to be followed by ***the Party Politburo's Resolution 22*** *(November 1989)* and ***the Government's Decision 72 on socio-economic development of mountainous region*** *(March 1990),* ***Strategy of socio-economic development during 1991-2000, the Land Law*** *(1993),* ***the Labour Law*** *(1994),* and other documents of legal value. These contain the following essential, salient points:

a/ To recognize the objective, long-term, and legally-equal existence of all economic sectors;

b/ To return the right to labour and capital utilization, and long-term land utilization (including forest land and water surface) to peasant households in their capacity as autonomous economic units;

c/ For cooperatives and production teams which are still efficacious, to streamline the managerial apparatus and transform the operational functions, to concentrate their activities on a number of service links for production which individual households cannot do efficiently (such as irrigation, prevention against pests, etc.). New and diversified forms of cooperation in rural areas are to be encouraged, on a completely voluntary basis;

d/ To switch agriculture and rural economy from an autarkic undertaking to commodity production, depending on the characteristics and comparative advantages of each region;

e/ Apart from the payment of land-use taxes, the peasants no longer have to make obligatory sales of food and foodstuffs to the State at stipulated prices, and are free to sell them on the market at mutually consented prices;

f/ The State will continue to invest in building head irrigation works, afforestation projects, establish banks to offer loans to the poor, promote the work of agricultural extension, and supply trees and breeder animals of high yield and good quality to peasant households;

g/ To provide guidance and assistance to the building of schools, health stations, communication lines, and power networks, in rural areas on the principle of "joint efforts by the State and the people", etc.

The above institutional reforms constituted an appropriate response to the problems and aspirations of the peasant masses, creating a great driving force for steady agricultural and rural development in the past ten years, particularly under the 1991-1995 plan. This is clearly shown in the following table:

Table 5: **Some indicators of agricultural and rural development (1986-1995)**

	Unit	1986	1990	1995
1. Area of cultivated plants	Mil.ha	8.5	9.04	10.49
2.Area of food plants (in paddy equivalent)	"	6.8	7.11	7.97
3. Food output (in paddy equivalent	Mil.ton	18.3	21.4	27.57
4. Rice paddy	"	15.8	19.2	24.96
5. Average paddy yield for each crop/year	Quintal/ha	27.8	31.9	35.8
6. Average annual per-capita food output	kg	304	324	370
7. Exported rice	Mil.ton		1.62	2.10
8. Output of industrial crops	1000 tons			
- Dried tea buds	"	30.1	32.2	40.20
- Coffee bean	"	18.8	92.0	218.0
- Dried latex	"	50.1	57.9	122.7
9. Livestock breading	Mil. individuals			
- Buffaloes	"	2.65	2.85	2.96
- Oxen	"	2.78	3.12	3.64
- Pigs	"	11.8	12.26	16.3
10. Concentrated afforestation	1000 ha		63.3	165.3
11. Aquaproduct output	1000 tons	690.8	777.8	922.0
12. Agro-forest-aqua product value	Mil. USD	397.3	1,148.8	1,900.0
13. Electricity-using rural households	% of households	6		53.2 (1994)
14. Car roads to Commune People's Committee	% of communes	40		87.9
15. Elementary schools	"	75		99.8
16. Secondary schools	"	45		76.6
17. Health stations	"	56		92.0
18. Markets	"	35		54.0
19. Solid houses	% of households	3	8.5 (1989)	12.0
20. Semi-solid houses	"	20	37.8	45.5
21. Households with radio receivers	"	7	11	37.3
22. Households with TV sets	"	1.2	3	21.0

Source: Statistical Annals 1992-1995; Vietnam's Agro-Forest-Fishery 1985-1993; Results of Overall Survey in Rural Area 1994 (Figures for 1986 from 13 to 22 are estimated ones).

Obviously, the results of Vietnam's agricultural and rural development under the socio-economic impact of

renovation during the past years are highly inspirational. Thanks to this, the supply of adequate food and foodstuffs to the people in the country was ensured, national reserves augmented, export turnover and capita accumulation from within the national economy increased, thus helping stabilize the macro-economy, curb inflation, and promote industrial and service development.

This can be seen in the following table:

***Table 6:* Growth rates and Stability of national Economy**

Unit: Annual average %

	1986-1990	1991-1995
- GDP	3.9	8.2
- Agriculture	3.6	4.5
- Industry	5.9	13.3
- Services	7.0	12.0
- Index of price rise to commodities and services	298.7	12.7 (1995)

Source: Statistical Annals 1991-1994; Government's report at the 9th Session of National Assembly 9th Legislature, March 1996.

However, due to a low baseline, and decades of war damage, Vietnam's agricultural and rural development level is still inferior in many respects compared with many countries in the region. According to economists' calculations with respect to a combination of 23 socio-economic indicators in 1992 (such as average per-capita

GDP, PPP – based GDP, ratio of agricultural in GDP, infant mortality rate, ratio of people with access to safe water, ratio of households using electricity, average calorie intake per person/day...), Vietnam was, in terms of rural development level, about 30 years behind Taiwan, 25 years behind Malaysia, 20 years behind Thailand, 12 years behind China, and 8 years behind Indonesia.[1]

A big question thus presents itself: Can Vietnam in the near future narrow the gap in economic development level with the countries in the region, in general, and in agricultural and rural development, in particular?

Specifically, considering the requirements for a fast, efficient, and sustainable development of agriculture and rural area, what ground is Vietnam standing on? And what should be done to solve the problems which are simultaneously both fundamental and urgent? For instance, how to reduce the population pressure on the limited natural resources? How to create employment for a workforce which is already largely redundant and still rising in rural areas? How to attain a high economic growth rate using market mechanisms while ensuring social equity and progress in rural areas? How to avoid the gaps becoming too wide in income and living standards between rural and urban areas, and between

[1] After Chu Hữu Quý: *Phát triển toàn diện kinh tế nông thôn Việt* Nam (All-sided economic development of rural Vietnam). National Politics Publishing House, Hanoi, 1996, p. 18.

the plains and the mountainous regions, which may otherwise lead to uncontrollable evacuation flows of people, and excessive urbanization with unforeseeable negative consequences economically, socially, culturally, and environmentally...?

There are no ready and simple answers to the above questions. The following analysis of the socio-economic impact of renovation on some aspects of the process of agricultural – rural development has a modest aim in contributing to assessing current realities, recognizing emerging contradictions, forecasting development trends, and providing some recommendations on the direction toward possible solutions.

II. POPULATION AND FAMILY PLANNING

To speak of sustainable development is, first, to refer to establishing a harmonious, long-term relationship between population size and the utilization and management of natural resources of a country or region, in order to meet the requirement for improving the quality of life for all the people in the country, both present and future generations.

In Vietnam, during the last few decades, particularly in recent years, thanks to the implementation of the population and family planning program, the natural increase rate (NIR) was declining from 3.8% during 1955-1960, to 3% during 1970-1975, 2.3% during 1985-1990,

and just above 2% from 1994 till now. The total fertility rate (TFR) is also declining from 6.9 in 1955-1960 to 5.9 in 1970-1975, 3.8 in 1985-1990, and 3.1 from 1994 till now.[1]

However, compared with other countries in the region, Vietnam's NIR is still high. According to data of the 1985-1990 period, NIR of South Korea was 1.0%, of China 1.17%, Thailand 1.7%, Indonesia 1.9%, the Philippines 2.4%, and Malaysia 2.6% (while Vietnam 2.3%).[2]

Notably, the population growth rate in Vietnam's rural areas, where 80% of the country's population live, is often higher than the national rate by 2-4‰, that is, an annual growth rate of approximately 2.2-2.4%. In some mountainous regions of the ethnic minority people, the growth rate is even higher. This can be seen in Table 7 below:

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[1] Source: *Population - Family Planning Committee.*

[2] *État du Monde. Annuaire économique et géopolitique mondiale.* Edition 1994, translated text of Social Sciences Publishing House, 1995.

***Table 7:* Population-Family Planning Indicators in Rural Vietnam (during 1989-1992)**

	Crude birth rate ‰		Crude death rate ‰		Natural increase rate ‰		Total fertility rate	
	1989	1992	1989	1992	1989	1992	1989	1992
-Northern Mountainous Region	42.88	37.32	12.60	8.65	30.28	28.67	4.00	3.91
-Northern Midlands	32.51	30.21	7.89	8.09	23.62	22.12	3.89	3.80
-Red River Delta	29.35	26.42	8.32	7.42	21.03	19.00	3.47	3.48
-North-Central Region	36.31	35.44	9.86	7.76	26.45	27.68	4.63	4.54
-South-Central Coastal Region	37.40	37.03	10.19	8.77	27.21	28.3	5.11	5.02
-Central Highlands	46.10	45.56	15.66	10.12	30.44	35.44	6.66	6.57
-South-Eastern Region	33.49	28.64	7.45	7.45	26.4	24.15	4.18	3.09
-Mekong River Delta	35.6	32.5	4.92	8.54	26.24	24.02	4.40	4.31
All country rural area	34.03	32.03	9.20	7.98	24.83	24.0	4.34	4.25

Source: Overall report of topic on Population Policy (KX.04.03).

At the above NIR, every year Vietnam's rural areas absorbed an additional 1.3 to 1.4 million people. Therefore, the average per-capita natural land area and arable land area in Vietnam which were already small, further declined year by year.

On 1992 data, in comparison with Canada, the population of Vietnam was 2.5 times larger, but the natural area was only 1/30. Compared with Malaysia, the figures were 4 times and 1/1 respectively, and with

Thailand, 1.2 times, and 64/100 respectively. Even compared with China, which has the world largest population, the average population density per 1km^2 of Vietnam is still higher (123.8 persons/km^2 for China, as against 208.7 persons/km^2 for Vietnam).

The average per-capita arable land area of Vietnam only 0.1 hectare in 1993 is also one of the lowest in the world.

With Vietnam's industry being relatively under-developed, agricultural labour predominantly manual, productivity of plant and animal breeding low, and non-agricultural lines not yet expanded, the limited arable land area constitutes a huge obstacle to rural socio-economic development, and also is an intense challenge for the preservation of ecological equilibrium.

Therefore, if the population growth rate cannot be further reduced to a reasonable level, Vietnam's rural areas will find it hard to escape from the poverty vicious circle: *high population - degraded environment - ever more impoverished people.*

Faced with this situation, in implementing the socio-economic development strategy during 1991-2000 and beyond to 2010, the Vietnamese Government decided to consolidate the executive apparatus for the National Program of Population and Family Planning[1]. The

[1] Government's Ordinance 193/HDBT date June 19,1991.

objective is to strive to reduce the NIR to 1.8% by 2000, and to 1.2-1.3% by 2010, so as to be able eventually to stabilize the population scale by the mid-21st century.

Towards this goal, there have been some population forecast, put forth by Vietnamese scientists, of which the medium one runs as follows:

Table 8: **Population Forecast Towards 2000and 2010**

(medium alternative)

	1995	2000	2005	2010
All country (1,000 pers.)	72.727	79.635	86.374	93.067
Rural area:				
a/ Totality (1,000 pers.)	57.818	61.327	63.361	63.946
b/ Ratio (%)	79.5%	77%	73.3%	68%

Source: Overall report on research results of topic KX.04-03.

Besides, UNFPA has also offered three differing forecasts:

Table 9: **Forecast on Vietnam's Population**[1]

(Excerpt from UN population clock)

Unit: 1,000 persons

Alternatives	2000	2005	2010
- Low	80.897	88.105	94.699
- Medium	81.515	89.422	97.096
- High	82.132	90.729	99.455

[1] According to Mai Kỷ (Minister, Population-Family Planning Committee): "*Dân số Việt Nam xưa và nay*" (Vietnam's population before and now), Review *Before and Now*, January, 1996.

The task for Vietnam is now to find effective measures to attain at least the above medium alternative.

The experience of the last few decades indicates that, although the Vietnamese Government initiated the population policy as early as in 1961, for a long period of time, it was not implemented in a consistent and cohesive manner, as was true for several other policies. The implementation measures were simplistic, focusing mainly on promoting IUDs for women. In particular, education and information on population reached mainly urban areas and some peripheries. Meanwhile, in many large rural areas, where population growth rates remained high, people had little access to the necessary information and understanding of this important issue. In several cases, contradictions existed between the population policy and other important socio-economic policies, resulting in many obstacles, or even totally preventing the implementation of the population policy. The most noticeable instance is that, following the Politburo's Resolution 10, cooperatives made contractual allotment of land to peasant households on the basis of the number of household's members. Also, in many places, in accordance with traditional village practice, land is to be redistributed every 3 to 5 years. These became factors which stimulated rural young people to get married early and to split into separate

households, and to have children quickly so as to be entitled to more allotted land. From 1989 to 1994, the number of rural households nation-wide increases by 1.57 million, that is an average annual rise of 314,000 households. In Ha Bac province, in 1994 when preparations were made to give the peasant households the right to stable and long-term land use as stipulated by the Land Law, and additional 30,837 children were discovered beyond the official registration record.

Only in the recent few years, with the implementation of the Land Law (ratified by the National Assembly in 1993) by which arable land is allotted to peasant households by the State for a stable and long-term use, the above tendencies have been gradually curtailed. At the same time, the organizational network for the implementation of the population and family planning program has, step by step, been established from the central to the commune levels, which exerts a positive impact on the implementation of the program.

The field surveys conducted by the Rural Development Research Team in the two communes, Phong Khe and Tuong Giang, in the plain region as well as in Tu Ly commune in the mountainous region have shown more precisely the reasons for progress and also

for the remaining problems in the tasks of population and family planning recently.

In the two plain communes:

***Table10:* Situation of Population-Family Planning 1994**

Communes	Total population	Number of married women of reproductive age	Number of people taking contraceptive measures	Total births	Total deaths	Natural increase rate
Tuong Giang	8,497	1,590	911	175	44	1.55%
Phong Khe	6,729	1,117	324	187	25	2.41%

As thus, Tuong Giang commune's population growth rate was lower than the average nation-wide rate by 4.5‰, while Phong Khe commune's rate was higher by 4.1‰.

What are the reasons for the discrepancy?

Replying to our questions in an interview, the head of Tuong Giang health station said: in the previous years, Tuong Giang was ranked at the lowest level with respect to the population-family planning work in Tien Son district. Only for the last few years have forwards steps been taken. The reason is the population board has been improved, and has started operating regularly. The board's ramification goes from the commune to every village and hamlet. In every village there are propaganda workers, collaborators on population work, functioning simultaneously as health workers. The board conducts a

steady and vigorous drive on population-family planning work, including propaganda, canvassing, and explanation. Besides, the commune stipulated that a fine is to given to any couple who gives birth to a third child. The fine is just a small amount for a well-to-do family, but it serves as a remainder (broadcasted through the board's network of loudspeakers) to other people to take precautions. Moreover, in recent years, some non-agricultural lines, particularly construction, of the commune have developed. Many young people go to cities and towns to seek jobs as construction workers, and they learn good lessons there. They see that urban families have fewer children, and thus enjoy more leisure; while the peasants with numerous children lead a much harder life.

The use of contraceptive devices is also an important factor, but whether population increases or declines is basically a question of cognizance. Nowadays, many couples have realized the disadvantage of having a big family. If they have had both a boy and girl, they would generally stop there, with or without contraceptive measures. Admittedly, the traditional preference for "one of both sexes" with regard to children is still fairly prevalent. Of all the respondents to a questionnaire, 45% affirm the necessity to have a boy to continue to the family line. Many couples, having had two girls, still want another try, and

they would only stop if the third or even the fourth children should happen to be a girl again! Notably, for the exclusively agricultural families, the ratio comes up to 67%. And the higher the level of education of the families, the lower the ratio goes: nearly 58% for elementary education, and about 43% for secondary-school education.[1]

That is the situation in Tuong Giang commune. As for Phong Khe, about 5 to 6 km away, we see a completely different picture.

According to the remark of the head of Phong Khe commune's health station, the commune has a traditional craft of paper making. 65% of all families earn a living by this craft, and only 35% have farm work as the main source of income. Despite the fact that the average per-capita arable land area is only over 1 *sào* ($360m^2$), thanks to the paper craft, the commune's economic conditions are better than other communes; the inhabitants face no risk of hunger or unemployment. When the children grow up, various jobs are available to them depending on their age. They may go to school, but just to a certain extent; the rest of their time is given to papermaking. When they reach marriageable age, the parents may easily build a house for them to set up their

[1] Results of survey in Tuong Giang commune, Tien Son district, Ha Bac province (intensive interview part).

own families. Being poorly educated, the girls in the commune have become "*set targets*" at the age of 16-17, and marriage takes place when they reach 18 (the statutory age stipulated by the Law on Marriage). According to local customs, a girl of 20-22 without a man asking to marry her parents start to get worried; therefore, the campaign to raise marriage age becomes very difficult. Another local custom is that after one or two years of marriage, if the daughter-in-law has not yet had a child, she will have trouble with her mother-in-law and other husband's relatives. Thus, the couples here have children very early, at the age of 19-20 for the first ones.

Moreover, the women and other inhabitant in the commune are generally busy all day long, from early morning to late in the night, with their papermaking job, so they have little or no time for meetings. It is as not easy as in other localities to conduct a campaign to apply family planning measures. They are not worried about getting fine, or having to return contractual land to the commune, because they have a craft to rely on. Moreover, there is a Catholic hamlet in the commune, Ngo Khe, which is poor, but the inhabitants see themselves as Christ's children, and reject all contraceptive measures. Organizationally, though the commune has established a population-family planning

board, its operation is poor and influence limited. Ironically father of 4 girl children has been appointed to take charge of the population board and he is trying a fifth time for a boy. Just imagine who would need his advice to practice birth control? Recently, the population board has intensified their operations, but is still focusing mainly on a campaign for the application of contraceptive measures. When no change is seen with respect to the people's knowledge, it will be a long time before we can attain the objective of reduced population growth rate.[1]

From a nation-wide overview to the analysis of the results obtained in the field surveys in the two above-mentioned communed, we can identify several factors which exert an impact on the implementation of the population-family planning program. Below are some of the most noteworthy influences:

- Production lines and crafts in rural area and peasant households' income (economic factors);
- Level of education, mentality, customs, and lifestyle (cultural factors);
- Education and information (impact on people's cognizance, knowledge);
- Health service (technical measures);

[1] Results of survey in Phong Khe commune, Yen Phong district, Ha Bac province (intensive interview part).

- Competence and operational efficiency of the population-family planning network (organizational measures).

In Tu Ly commune:

Despite a gradual decline in recent years, the population growth rate was still high. In 1994, the crude birth rate of the whole community was 2.9%, of which that of the Muong ethnicity was about the same, the Dao ethnicity 3.1%, and the Tay and Kinh a little lower than 2.9%. The crude death of the whole commune was 0.74%, of which that of the Dao was 0.94%, the Muong 0.88%, the Tay 0.61%, and the Kinh 0.23%. Notably, as the death rate of children under 5, particularly the newly-born, in the commune was still high (10.72%), the mentality among mothers of securing surviving children by giving birth to several is still prevalent. This can be seen in the following table:

***Table 11*: Percentage of mothers by delivery frequency in Tu Ly commune** *(up to 1993)*[1]

Frequency	Average (%)	Muong (%)	Dao (%)	Tay (%)	Kinh (%)
1-2 times	24.1	23.0	32.3	26.9	14.3
3-4 times	37.9	43.4	20.6	38.5	33.3
5-6 times	20.7	20.5	14.7	15.4	38.1
7 times	17.3	13.1	32.4	19.5	14.3

[1] Results of survey in Tu Ly commune, Da Bac district, Hoa Binh province.

Thus, apart from such reasons as poor knowledge, poverty, the need for manpower for field work, the high death rate of children and poor medical services for the people in general were also important reasons preventing the implementation of the population-family planning program in mountainous areas. Families with numerous children are still considered superior by some ethnicities in the community.

From the above findings, some suggestions may be made to supplement, improve, and concretize the population-family planning program as follows:

a/ To step up the task of providing information propaganda, and education on population in the whole country, focussing on the countryside, and ensuring that the effects reach even remote and out-of-the-way regions, both rural and mountainous, and the regions of Catholic people...It is necessary to bring about a change in the people's perception with regard to population, such as "*The more children, the more happiness*", "*God creates elephants, so God will create grass to feed them*", "*Parents must have boys to succeed to the family line*"... Only by doing so will the people be willing to practice birth control to attain the objective of "*Stable population, prosperous society, and happy family*". The world's experience has shown that the imposition of population targets and measures, which run counter to

the people's willingness and voluntaries, can lead to terrible harmful consequences. For instance, in India in the early 1970s, the Government allowed states to impose "*compulsory sterilization*" on the couples who had had a certain number of children. This ended in complete failure, because of the strong opposition of various people's strata, and led to political instability.

b/ To create a uniformity between the socio-economic policies and the population-family planning policies, while striving for the objective of "*family of few children*". In the immediate term, we should step up the work of land measurement and registration, and issue certificates to peasant household for their right to stable and long-term land use, thus to reduce the incentive to have many children to be allocated more land at redistribution time. It is necessary to promulgate social insurance policy, particularly insurance for elderly people in the countryside; to encourage communes and villages to inherits good traditions, earmarking an amount of land for setting up production units to cater to the solitary, helpless aged people. For the mentality of "*the young rely on the parents, the aged rely on the children*" is still quite prevalent in the Vietnamese countryside. Nearly 70% of respondents in the rural areas of Thai Binh province believed a big

number of children was an investment for the future and a sure insurance for old age.

c/ Of particular importance is to accelerate the universalization of education, first of elementary level, then secondary level in the countryside, gradually raising the educational level for the peasants, above all the young generations. Practical experience has shown the enhanced knowledge of the people is the factor of primary importance for birth control. This is fully consistent with the lesson drawn by many countries in the world: "*knowledge is the best contraceptive*!"

d/ To improve and consolidate the medical network especially in remote and hard-to-reach villages, to take good care of mothers' and children's health, to reduce the death rate of newborns and children of under 5 which is still high in the countryside, reassuring rural families against risk so as not to resort to procreating numerous children. On this foundation, to introduce family planning services to the people, and to make efforts to achieve the goal which in 3-4 years, commune health stations will be able to perform family-planning clinical services right in the localities.

e/ To train full-time workers at the grassroots level and to adopt policies of adequate reward vis-à-vis the contingent of population-family planning. To mobilize social organizations, mass organizations, and volunteers

to engage in population-family planning activities so as to enhance the community role in this important field. Experience of success in some localities show that the implementation of the population-family planning program must be highly socialized; and only with a cohesive coordination among various branches, levels, mass organization, and non-government organizations, can we obtain the desirable results. No organization alone can well perform the population-family planning task. While emphasizing the strength of collaboration and collectives, we should try to bring into play the role of traditionally prestigious individuals in the community such as village elderly people, hamlet heads in mountainous region, priests in the regions of Catholic people... in the education and stimulation of people to abide by the population-family planning program.

III. LABOUR AND EMPLOYMENT IN THE COUNTRYSIDE

Job creation is one of the crucial socio-economic policies of various nations. It aims to ensure the opportunity for every citizen in working age to utilize their labour - their most precious asset to create new material and spiritual products, by which to maintain and improve the quality of life for themselves and their families, and at same time, to contribute to strengthen and develop the society.

In today world, job creation for working people has become one of the most pressing issues not only for developing countries, but also for many developed, industrial countries. The World Summit on Social Development, held in Copenhagen (March 1995), unanimously adopted the task of job creation as one of the three priorities that all countries must strive to perform in their development strategies.

According to statistical data, in 1994 and 1995, the unemployment rate of the whole EU was 11.6% and 11%, of Canada was 8-9%, and the US 6-7%.

In developing countries, the unemployment rate is often not noted clearly in the State's annual statistics, but in fact, the number of unemployed and underemployed people in these countries is considerably high.

In Vietnam, prior to renovation, the State and the collectives took up the responsibility to provide jobs to all people in working age, so "*everyone is employed, but not everyone works at their full capacity*". Therefore, labour productivity and economic efficiency were low, gradually leading to stagnation, recession, and economic crisis.

Since renovation, together with the shift to the market economy mechanism, instead of following the previous subsidy based practice in employment provision, the State has promulgated a number of policies and measures such as: to ensure freedom to

engage in production and business for various economic sectors and population groups; to encourage the development of medium and small-size enterprises in rural areas; to give the right to autonomy to nearly 12 million economic households in rural areas; and, at the same time, to set up a national employment fund, to effect preferential credits to poor families, to provide training and vocational guidance to young people, etc. to enable the people to create jobs for themselves and for others.

As a results, in the 1991-1995 plan, every year, about one million people in the whole country were able to find jobs. The unemployed in the total labour force of the society declined from 8-9% in 1990 to 6-7% in 1995. However, unemployment and underemployment remains a burning socio-economic problem of the country.

Especially for the rural areas, unemployment has the following remarkable traits:

First, the rural workforce continues to grow fast, compared to the limited arable land available.

Although in recent years, the population growth rate in the countryside has gradually declined, the annual growth rate of workforce is still about 3.5-3.6%, due to the explosion of the natural population growth during the previous decades (an annual growth rate of 3.8% during 1955-1960, and 3% during 1970-1975).

Moreover, as non-agricultural production lines and services make up a very low ratio in the rural economic structure, some 80% of the rural workforce still has to cling to farm work.

That is the reason why, the average arable land area per head and per agricultural worker continues to decline despite an addition of nearly one million hectare to the agricultural land acreage in the last 10 years resulting from virgin-land clearing in the Central Highlands, Dong Thap Muoi, Long Xuyen quadrangle... This can be seen in the following table:

Table 12: **Average Arable Land Area per Head and per Farmhand (1985 - 1993)**

Year	Total arable land area (1000 ha)	Total agricultural population (1000 per.)	Total agricultural workforce (1000 per.)	Average land area per head (measures)	Average land area per agricultural worker (measures)
1985	6,492.2	41,234.8	18,808.0	1,574.1	3,451.8
1990	6,993.2	45,420.8	21,863.1	1,539.6	3,198.6
1993	7,348.4	49,574.5	23,700.0	1,482.2	3,100.5

Source: Statistical Annals 1992-1993-1994; Nguyen Sinh Cuc: Vietnam's Agriculture 1945-1995, Statistical Publishing House, 1995.

Therefore, within 8 years, average arable land area per agricultural worker declined by 350m^2, that is by nearly 44m^2 per year. For comparison purpose, we see

that in 1992, the average arable land area per agricultural head of Vietnam was 1,514 m^2, of Malaysia 9,100m^2, Thailand 6,100m^2, the Philippines 3,100m^2, and Indonesia 2,800m^2.[1]

Second, full employment period for the agricultural workforce is very short, and under-employment is growing.

According to globe statistics, the average arable land area per agricultural worker in Europe is 15-17 hectares, in America 45-50 hectares, and Asia-Pacific 4-4.5 hectares. Some foreign agrarian experts think if a rural worker has only one hectare or less of arable land to work on, he/she can be regarded as unemployed. But in Vietnam, the average arable land area per agricultural worker in 1993 was just over 3,100m^2. Though the peasants in the whole country have made efforts to intensive cultivation and extend crop multiplication, raise the land-use coefficient from 1.4 times in 1985 to 1.58 times in 1993, the average arable land area per worker is less than 0.5 hectare. In the Red River Delta alone, the land-use coefficient attains the highest figure of 2.32 times, but the average arable land area per worker is just above 2,300m^2. Therefore, agricultural labourers are crowded on narrow arable land areas to

[1] Source: *Rapa Publication.* Bangkok, 1994, after Nguyen Sinh Cuc: *Vietnam's Agriculture 1945 - 1995.*

share the scarce, limited jobs, so labour redundancy under in the form of under-employment is prevalent.

According to statistical data, in Vietnam, only 18% of the Agricultural workforce work for 210 days a year, and the rest works less than 210 days a year, of which 21% work for only 90 days a year with the average daily working time of 4-5 hours[1]. Results of a survey in some communes in the Red River Delta and the Northern midlands show that the average number of idle days for an agricultural worker in the exclusively agricultural households of Thai Binh province is 135 days for year, of Nam Ha province 116 days, Ha Tay 107 days, and Ha Bac 102 days.[2]

Third, while a considerable part of rural workforce moves to urban and other areas, a flow of labour from several sources returns to the countryside, bloating rural labour redundancy.

During idle seasons, tens of thousands of labourers, mainly the young, from rural areas flood to cities, particularly Hanoi and Ho Chi Minh City to search for job. Many rural youths even go to mining areas, digging wantonly in search of gems and gold, or to border areas working as porters for export-import businessmen.

[1] Chu Hữu Quý: *Phát triển toàn diện kinh tế - xã hội nông thôn* (All-sided Rural Socio-Economic Development*).* National Politics Publishing House, Hanoi, 1996. p. 52.
[2] Ibid.

Results of a survey in Hanoi in 1993 show that there were 16,340 labourers from rural areas of the Northern plain and midlands, even from Thanh Hoa and Nghe An, who came to look for jobs. Of these 2,517 were pedicab men, 1,872 carpenters, 4,324 construction workers, 1,044 collectors of scrap materials, 2,355 low-skilled mechanics, and 4,025 general labourers such as soil diggers and porters.

In Quang Ninh, during 1991-1994, there were often about ten thousands labourers from the Red River Delta rural areas, who came to work for the owners of "bandit" coal wells. They were heavily exploited, and often intimidated and badly treated by the knavish contractor and thugs. Many of these workers were drawn into drug addiction, gambling, and prostitution, causing acute social problems and serious environmental pollution.

Meanwhile, together with the shift to market economy, the re-organization of production lines and the downsizing of managerial boards have resulted in the lay-off of nearly one million workers and employees of State's enterprises, construction sites, and offices. Of these, 70% have returned to the countryside. In addition, there were hundreds of thousands of demobilized soldiers, over 200 thousand guest worker returning from the former Soviet Union and East European socialist

countries, and tens of thousands of repatriated refugees, most of whom came back to the countryside.

In short, a great employment pressure is seen in the countryside due to high population growth rate and the entering of around one million of young people to the labour force every year, while agricultural land area is limited, rural economic restructuring is slow, occupational lines and services are undeveloped, and 80% of rural workforce are engaged in agricultural production.

In the whole country, rural under-employment made up about 30% of the required labour time, that is equivalent to 8-9 million labourers in the total 28.5 million workforce in the countryside in 1994.

It is forecasted that from now to 2000, and as far as 2010, although the percentage of rural population and of rural workforce will gradually decline in consistent with the process of industrialization and urbanization, the absolute quantity of these two figures will continue to grow, with an annual rise of workforce by about 500-600 thousands people.

In face of such a situation, the big question is how to solve the current serious problem of under-employment and, at the same time, to generate new jobs for the additional workforce in the countryside every year?

Table 13: Forecast on Rural Workforce towards 2000 and 2010 (medium alternative)

Unit: 1000 pers. (between 15-60 years of age)

	1995	2000	2005	2010
All country	31,342	34,617	37,121	38,879
- Northern Mountainous Regions	3,432	3,866	4,338	4,735
- Northern Midlands	2,344	2,624	2,828	2,943
- Red River Delta	4,543	5,083	5,495	5,799
North-Central Region	6,604	7,144	7,584	7,657
- South-Central Coastal Region	3,208	3,535	3,839	4,079
- Central Highlands	1,150	1,273	1,463	1,362
- South-Eastern Region	2,698	2,807	2,877	2,485
- Mekong River Delta	7,314	8,275	8,708	9,189

Source: Overall report of topic KX.04.03.

Although the above results of our survey in some communes do not fully reflect the diversity and complexity of the employment problem in the country's rural areas, we can obtain from them useful some experience - both success and failure - in generating jobs in the process of shifting to the new economic mechanism.

In Tuong Giang Commune

In an intensive interview, some officials and many common people made same remark: Tuong Giang is a narrow piece of land and over-crowded. Average per-capita arable land is just over one Northern Vietnam

sào[*] (in 1994: 453m^2). Each farmer has, averagely, just over 1,000m^2, that is nearly one-third the average acreage in the whole country, and half that for the Red River Delta.

In this situation, if we concentrate exclusively on agriculture, many people will surely have no work to do. But since the implementation of the renovation policy, almost all families have taken up a sideline job in addition to farm work. At the beginning, it was referred to as a secondary job, but then this non-agricultural job has become the main job, as it brings much higher income than farm work.

In fact, there was a textile handicraft cooperative previously in Tuong Giang, beside the agricultural production cooperative. But because of cumbersome organization which led to unprofitability, the cooperative had gradually shrunk. At that time, textile production at family level was restrained and had to be done underground, so it could not develop. Since 1988, with the policy of freedom of economic activities, textile craft has developed vigorously. In almost every house, we can see one or two weaving looms. The main products are towels and net cloth, which big enterprises have little interest in producing.

[*] 1 *sào* = 360 m^2.

Moreover, due to cheap labour, low cost prices, and good quality, Tuong Giang 's products compete strongly in the market. Families with high investment may acquire fibre by themselves for the weaving, and sell the products, while those without initial investment may receive weaving contacts from the yarn owners at a mutually consented price i.e. from those who have high investment, and board access to markets to purchase materials and to find market outlets for products. Some people have also rallied their funds to set up a production team with 30-50 weaving machines and a capital of hundreds of millions VND.

Weaving is done mainly by female labour. Elderly people who are still capable to work, and children out of school time are also attracted to do a variety of jobs such as yarn spinning, spindle threading, etc. thus creating work for everyone.

Men of working age in the commune mostly take up construction jobs, except for a number engaged in the purchase of materials. These are jobs for some men during off-farming time only, but many others, particularly the young, consider these their main occupation. Most of their time throughout the year is given to working in far-way time cities and towns, but they do not lose touch with the countryside. At the beginning, some contractors undertook the task of

forming work teams of 5 to 10 labourers each, and conducted small construction works. Recently, there have appeared a few limited liability companies with hundreds of workers. Noteworthy is construction Company No.1, which has 300 workers. This Company has invested in training skilled workers in architecture and construction designing, who are capable of taking contracts for medium and big-size works.

Beside textile and construction occupations depending on their professional skills, funds, and business links, some other families are also engaged in occupations such as carpentry, garment making plaiting, or trading staple consumer goods to serve local people. As a result, there is no longer labour redundancy or idleness in the commune like before. The textile craft has become prevalent for almost all 1,980 households, and it alone has entailed the requirement to develop several services such as carpentry (making loom frames), mechanical and electrical repair, supply of materials, and search for market outlets. Thus, a developing occupation will create to other concomitant occupations.

Although handicraft and small industry lines have developed and provided a good income, all the peasant families in the commune still receive contractual arable land and do farm work. Like in almost all the

communes of the Red River Delta, the people here still consider agriculture the base of stability, and arable land a precious asset and the solid mainstay against the volatility of market concerning both the inputs and outputs of non-agricultural lines.

All the household heads interviewed agreed that: Once you live in the countryside, you must be engaged more or less in cultivation. Our forefathers said: "*Agriculture is the base*". Currently, textile and construction jobs are bringing an income 2 to 3 times higher, or even more still than farm work. But if farmers give up agricultural work, and later on when non-agriucltural lines cannot develop, how can they earn their living?

In Phong Khe Commune

Phong Khe commune has several traits identical with Tuong Giang commune, that is, average arable land area per head and per farm hand is very small. If the people here concentrate exclusively on agricultural production, there will be a greater labour redundancy. Therefore, non-agricultural line must be strongly promoted to create jobs. The difference is that while diverse non-agricultural lines develop in Tuong Giang, there is only the papermaking job which prevails in Phong Khe. Initially, they started with "*zo*" paper, which is a special kind of paper used for making firecracker

fuses, printing folk maintains on, or making votive paper. In recent years, many households have switched to making recycled paper from sources of waste and discarded paper.

Almost all the households in the commune, particularly in Duong O and Dao Xa hamlets, are engaged in making "*zo*" paper, performing all products stages links or just a few stages. The process of "*zo*" paper production - from collecting materials, soaking and pounding them into pulp, spreading into a layer peeling, drying, pilling... - is all done manually according to traditional technology, which requires much labour. That is why for a long time previously, no families in the commune were short of jobs.

However, since mid-1994, when the Government, by its Ordinance 406/CP, banned the production, trading, and exploding of firecrackers, an abrupt slump in "*zo*" paper making occurred, and labour redundancy rose to 70%. Before that, in Duong O, the largest hamlet and the busiest paper-making place, the families received contractual land and left it to their relatives from Ngo Khe hamlet to work on it, reap the harvest, and make the payments to the cooperative. The land owners charged nothing, and sometimes even gave financial assistance to them. Following Ordinance 406/CP, all the borrowed land was taken back. As the

average land area per farmer was only about one-tenth of a hectare, there were not enough jobs despite much intensive cultivation and crop multiplication were conducted. Some families attempted to raise special species of plants and animals, but they ended in failure due to lack of knowledge and experience. Eventually they came back to rice plantation and pigs raising like before.

After the reeling "*shock*" which lasted for 6 months to one year, local households gradually realized that whatever happened, they had to cling to their traditional craft, i.e. paper making; however, products and technology must adapt to market requirements in term of diversity. In this direction, local families have switched from making paper for firecracker fuses to making tissue paper, toilet paper, packing paper, and decorative colored paper, all of which are now in great demand in the country. Some families are even making thin gold leaf of high value to be exported to Hong Kong and Taiwan. Twenty stock enterprises and private enterprises have been established and equipped with machines to recycle waste and discarded paper. These twenty enterprises alone have employed over 400 young and strong labourers for direct production assembly (making paper layer, laminating paper...). Besides, hundreds of other people are working as materials

collectors and transporters, with a network of agencies for procuring materials and selling products in almost all the big cities and towns in the North.

Thanks to this dynamic switch, in 1995 about 50% of the redundant workforce could find jobs again. The rest concentrated on their contractual land for agricultural production, and even rented more land from the people who had switched completely to the paper craft. The implementation of the Land Law, by which peasant households may transfer or rent out their land, has made the practice transparent and legitimate.

Some families have switched to processing food and foodstuffs (such as making soya bean cakes), or joining the construction team to build intra-commune roads. On about 100 labourers have to go to big cities like Hanoi, Hai Phong... to look for jobs.

In Tu Ly Commune

Differing by far from the conditions of the two plain communes, in Tu Ly, a mountainous commune where four ethnicities live, the employment problem is facing great difficulties and challenges.

Tu Ly is one of the 21 communes belonging to Da Bac district, Hoa Binh province. The population density of the district is 57 persons/km^2, among the lowest in Hoa Binh province. But almost of the natural land area is mountains and hills, while arable land area, both

water fields and hill-and-slope field, makes up but a small proportion. To add to the adversity, when the Hoa Binh hydro-electric dam - the greatest energy unit of the whole country - was built, 8,000 hectares of the district, of which were 600 hectares of water fields of age-old cultivation, were submerged, together with many other material-technical bases necessary for production and people's life, in the water reservoir of the plant. By May 1991, 2,630 households with 15,000 inhabitants, accounted for 30% of the total population of the district, had to remove within the district. Hundreds of other households with thousands of people had to evacuate to other districts of the province, even to some provinces in the Central Highlands. Having had no areas directly submerged under water, Tu Ly commune had to receive a number of families coming from the affected neighboring communes in the Da river reservoir area.

In 1991, the whole commune had 919 households with a population of 4,947. In 1994, the figures rose to 1,045 and 5,017 respectively. This included both natural and mechanical growth. Analyzing by ethnic composition, the concrete picture is as follows:

Table 14: **Number of Households and Inhabitants of Various Ethnicities**[1]

	Total		Muong		Kinh		Dao		Tay	
	House-holds (1)	Inhab-itants (2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
1991	919	4,947	593	3,036	141	685	149	972	36	254
1994	1,045	5,017	592	2,818	193	860	159	851	101	488

Thus, within 3 years, the whole commune grew by 126 households and 70 inhabitants. In term of family scale, from 1991 to 1994, every year each household had an average reduction of 0.57 person, from 5.38 persons/household down to 4.82 persons/household.

Families of the Dao ethnicity were the most crowded with 5.35 per./household then the Tay 4.83, the Muong 4.76, and the Kinh 4.45 (the least crowded one).

In terms of workforce, in 1994 the whole commune had 2,900 labourers, making up nearly 58% of the population. On average, each household had 2.7 labourers. Analyzing categories of households by the size of workforce and ethnicities, we have the following data:

[1] Results of survey in Tu Ly commune.

Table 15: Ratio of Households of Ethnicities by Workforce Size[1]

Number of labourers/household	General (%)	Muong (%)	Kinh (%)	Dao (%)	Tay (%)
Households with 1 labourer	4.93	4.91	4.76	2.94	7.69
Households with 2 labourers	6.90	8.20	9.52	2.92	3.85
Households with 3 labourers	49.45	55.74	47.62	29.44	50.00
Household with 4 labourers	19.70	18.03	0.53	29.41	23.08
Households with 5 labourers	18.72	13.12	28.57	35.29	15.48

Thus, the category of 3-labourer households made up nearly 50%, i.e. the highest ratio of all. For the Dao ethnicity, the ratio of 4 and 5 labourer households made up 64.70%.

Despite such a strong workforce, and the overwhelming majority concentrated almost exclusively on agriculture; handicraft and small industry lines were almost non-existent. Just a few people were engaged in trading trifling goods and agro-forest products in the commune and the nearby district townlet.

When being asked, as many as 90.6% of respondents said their families did not have any sideline occupations beside cultivation and livestock breeding. In the meantime, arable land, both water fields and hill-and-slope fields, per head and per agricultural worker was very little averagely.

[1] Results of survey in Tu Ly commune.

This can be seen in the following table.

***Table 16:* Average arable land area per head and per farmhand (1995)[1]**

Arable land	General	Muong	Kinh	Dao	Tay
Water fields					
- Average per head	353	400	36	288	641
- Average per farmhand	778	896	119	608	1562
Hill-and-slope fields					
- Average per head	511	400	410	698	230
- Average per farmhand	1127	914	1440	1469	562

In general, though being a mountainous commune, with a large and sparsely populated area, and a population density of about one-fourth of that of the whole country, Tu Ly had a lower average rate than that of the whole country as well as of the Northern Mountainous region and Midlands in terms of arable land per head and agricultural worker.

***Table 17:* A comparison of Average arable land area per head and per farmhand (1993)[2]**

Unit: m2

Arable land area	Per head	Per farmhand
All country	1482	3100
-Northern mountainous regions and midlands	1510	3610
- Tu Ly commune	864	1904

[1] Results of survey in Tu Ly commune.
[2] Ibid.

Therefore, under-employment is very high in this area. During off-farm seasons, when both water crops and hill-and-slope crops had been harvested, most of the work-hands of families had to go to distant forests to gather vegetables, bamboo shoots, edible roots, and other forest products to supplement the families' daily subsistence or to sell for a little additional income.

Although since the late 1980s, the State has adopted a policy of land and forest allocation to farmer households in mountainous regions, implementation has been very slow. Until recently, the four communes of Da Bac district, including Tu Ly have been chosen to implement contractual forest allocation. Many families have been given land on forest hills and certificates of land use rights to long-term use, but in fact forest economy has not yet taken shape due to lack of funds and technical assistance. Only until the National Program 327 of regreening barren land and denuded hills received funding, two hamlets Tay Mang and Xeo, among 14 hamlets of Tu Ly commune, were provided with credit and guidance to grow cinnamon, "*lát*" wood, and fruit trees, and to build roads.

In fact, the project has just started, with limited funding which is equally distributed little by little. Therefore, the efficiency of job creation in Tu Ly

commune as well as many other mountainous communes is still very low.

From a general perspective on situation nationwide, and results from fields surveys and investigations with respect to labour and employment in several localities, we may make some remarks as follows:

First, due to the high rural population and workforce growth rate, the limited arable land, and the slow process of restructuring of the rural economy (which still heavily relies on agriculture), while the industrial and service sectors in cities and towns are not yet capable of absorbing the labour surplus, unemployment and under-employment in the countryside are constantly increasing. It can be said that the situation has reached a dangerous point for sustainable development from socio-economic and environmental perspectives.

Second, at this time in the countryside, if we rely only on agricultural production, particularly agri-monoculture (riceplants + pig), the solution to the employment problem will become a complete impasse. Therefore, diversification of occupations in rural areas in thus essential, by promoting various types of household economy with mixed economic activities, such as farming and small industry and handicrafts, or farming plus small industrial-handicrafts and services,

are some of the types of solutions needed to address the problem of labour redundancy in order to raise income. However, there are still many difficulties in developing an agri-multiculture, and in expanding various small industry-handicraft lines, due to the lack of fund, occupational knowledge and experience, and above all to market volatility.

Third, in the rural mountainous region, the process of allocation of land and forest to the farmer households is very slow, the State financial assistance is low, technical guidance is inadequate, and the supply of high-value breeding animals and seeds is limited. Therefore, under-employed people make up a large percentage causing hunger, poverty, and serious environment degradation.

Considering the current level of under-employment in rural areas, which is forecasted to increase considerably towards the years 2000 and 2010, we believe that the focus of the solutions should be directed to the following areas:

a/ *The perspective on liberalization of labour and diversification of jobs,* should be more fully developed in the State macro management policies and in micro development plans for villages. The perspective should be institutionalized to pass into laws, in order to ensure freedom for all economic sectors and the working

population to have economic activities, to form joint venture, and to hire labour. This can improve the capability to self-employ and to generate jobs under forms and at various scales within the legal framework.

Experience of success in many places (including the cases of Tuong Giang and Phong Khe communes) has shown that having freedom of economic activities and being removed from all of the previous unreasonable prohibitions and restrictions constitute the greatest enthusiasm to the working people. It is also an enormous motivation awakening all potentials and promoting the working people's innovations for generating jobs, raising income, improving living conditions of themselves and their families, and contributing to solve the problem of labour redundancy in society.

b/ Together with the process of accelerating national industrialization and modernization, guidance and assistance in all aspects should be given in *restructuring the rural economy and rural workforce* in the direction of crop and husbandry diversification in the agro-forest-fishery line, diversification of small industry-handicraft line on the basis of inheriting and promoting traditional crafts, developing new occupations, and expanding the business and service activities so as to meet the requirements of rural production and livelihoods.

There is a need to realize the potential of nearly 12 million rural economic households in the organization of production and enterprises, and the restructuring of economy and workforce right in each household, realizing the guideline of " *Give the job to those who do it best*". It is also necessary to reduce the number of exclusively agricultural households, to increase the number of mixed-economy households, to encourage households to intensify their specialization, and to accelerate production of farm-product commodities by concentrating arable land through exchange or transfer in accordance with the Land Law, or to develop small industry-handicraft lines and agro-forest-aquatic product processing industry in the countryside.

c/ *To accelerate the process of land and forest allocation,* including remote and mountainous households, along with financial assistance and technical guidance. This aims to help people of various ethnicities to multiply the agro-plus-forest model or the agro-plus-forest-and livestock breeding model in order to generate jobs, raise income, and improve living conditions; and at the same time to contribute to regreening millions of hectares of waste land and barren hills, and to gradually rehabilitate the ecological equilibrium in the mountainous region and the whole country.

d/ *To conduct planning and to work out plans* for giving guidance to, organizing, and supporting the resettlement of people and workforce to regions with high economic potential such as Long Xuyen quadrangle, Eastern Nam Bo, coastal areas, and continental shelf areas. At the same time, to step up the building of rural infrastructure, and to focus on expanding the mountainous road network. It is to generate jobs for millions of labourers and to induce an even development among various regions of the country, between the mountainous regions and the plain, and urban and rural areas by which to restrain the flow of people migrating to cities, towns, and dynamic economic zones.

IV. RESTRUCTURING THE RURAL ECONOMY: DIVERSIFYING AGRICULTURAL PRODUCTION, AND PROMOTING SMALL AND HANDICRAFT INDUSTRIES

Restructuring the national economy in general, and rural economy in particular, is an objective requirement of development process of the productive forces and social labour division of all nations. That is the essential measure to generate sufficient jobs, to produce wealth, to raise income, to improve the people's living conditions, and to enhance the value of export goods, through which to contribute to accelerating national industrialization and modernization.

Realization of the necessity and importance of rural economic restructuring has not just been referred to in recent year. The point was made soon after the wars had ended and the country entered a period of economic development under peaceful conditions. ***The Central Committee's Political Report at the IVth Party National Congress*** *(December 1976)* wrote: "*To fully develop both cultivation and husbandry, to promote forestry, fishery... in order to ensure sufficiency in food and foodstuffs for the whole society, to have food reserve, to supply materials for industry, to rapidly increase sources of export goods... To develop all regions (plain, midland, mountainous and coastal), and to realize the potentials of each region... To develop vigorously food processing industry as well as foodstuffs, and other farm products... In the mountainous region, to combine forestry, agriculture with industry, to conduct, a multiple business undertaking in forestry, to grow industrial crops, and to raise livestock.*"[1]

However, due to numerous restrictions and prohibitions by the previous mechanism and policies of economic management, agricultural and rural development fell into a undesirable predicament:

[1] Communist Party of Vietnam: *Political Report at the IVth Party national Congress.* Truth Publishing House, Hanoi, 1977, pp. 4,77,78.

- It was intended to fully develop agriculture and to turn husbandry into a major branch, but focus had eventually to be given to paddy and subsidiary food crops because of a chronic shortage of food.

- It was intended to realize the potential of each region, to develop comprehensively agriculture, forestry, and fishery, and to promote small industry-handicrafts so as to meet domestic consumption demand and export, but the State required every locality to ensure self-sufficiency in food and foodstuffs, at the same time, took stringent measures to control and to forbid free circulation of farm-product commodities. Under the circumstances, "*all the craft villages of cloth, silk, conical leaf-hats, bronze casting, mother-of-pearl in playing, embroidery... had to switch to land tilling villages*", all the artisans of traditional crafts became ploughmen without exception... Trade, which contributed considerably to commodity circulation, also windled, as it was considered a "*bad occupation*"[1] (traders were referred to as "*commercial rogues*")

- It was intended to emancipate the productive forces, and to promote the potentials in labour, funds, and production and business experience of all people, but measures were taken "*to develop widespreadly of*

[1] Đậu Quý Hạ: "Vì sao nông thôn cũng thiếu việc làm? (Why underemployment in the countryside?), *Đại Đoàn Kết* Magazine, No. 32 (August 1989).

the public sector, to conduct coercive collectivization, to negate the autonomous role of the household economy and to discriminate against private, individual economy."[1]

The process of getting disentangled from the predicament started only when a renovation line was adopted vis-à-vis mechanism and policies, which was consistent with the people's aspirations.

Thanks to the renovation with respect to mechanisms and policies (often referred to in the world as '*institutional reform*') the farmers' initiatives and the potential of various economic components, particularly tens of millions of rural economic households, were brought into play; production of food and foodstuffs saw a fairly steady growth ensuring national food security, and serving as a mainstay for the restructuring of rural economy and of the entire national economy.

This process of restructuring can be seen in the following table 18:

[1] Communist Party of Vietnam: *Documents of the Vth Communist Central Plenum* (VIth Convocation), Hanoi, 1993. p. 18.

Table 18: **Ratios of Economic Sectors in GDP (1990-1995)**

	1990	1991	1992	1993	1994	1995
- Agriculture (including forestry and fishery)	38.7	40.5	33.9	29.9	28.7	27.2
- Industry (including capital construction)	22.7	23.8	27.3	28.9	28.9	30.3
- Services	38.6	35.7	38.8	41.2	41.7	42.5

Source: *Statistical Annals 1994*. For 1995 alone, data are taken from Government's Report at the 9th session of the National Assembly, IX legislature (March 1996).

Although from 1990 to 1995, the ratio of agro-forest-fishery sector in GDP declined by over 10%, the absolute value of these sectors rose by 67%; in particular, agricultural total output value rose average by 4.5% per year, and export turnover by 3 times. This was a highly significant factor to the overall growth of the national economy.

The structure of rural economy saw a gradual shift, although still very slow. According to the results of a general survey by the General Department of Statistics, in 1994 there were in the rural area 12 million households, of which 9.5 million were agricultural, making up 80%. The remaining 2.4 million households were non-agricultural, making up 20.4%, of which

16.0% were engaged in small industry-handicrafts, and 4.4% in trade and services.[1]

In the cultivation sector, total food output in paddy equivalent rose from 18.4 million tons in 1986 to 21.5 million tons in 1990 and 27.6 million tons in 1995; but as the value of non-food crops also increased rapidly, the value structure of various crops did not show any obvious shift, except for industrial crops which recorded a small rise.

Table 19: **Value structure of total output of cultivation branch (1989 constant price)**

Year	Total	Food		Vegetable Beans		Industrial crop		Fruit crop	
	Bil. VND	Bil. VND	%	Bil VND	%	Bil VND	%	Bil. VND	%
1986	8,716.2	6,307.1	6.5	708.4	8	1,448.8	15	937.5	10
1990	11,099.5	395.7	6.7	756.8	7	2,612.4	15	1,007.0	9
1994	13,591.5	9,055.0	6.7	856.5	6.3	2,177.0	16	1,096.0	8

Source: Statistical Annals 1994.

Comparing cultivation and livestock breeding, we see that for many years ratios these two sectors remain at about 75% and 25% respectively; but from 1992 to 1995, the ratio of livestock breeding rose a little from 26% to 27%.

[1] Source: *Results of general investigation on agriculture and rural area 1994.* General Department of Statistics, Hanoi, 1995.

Table 20: **Structure of total agricultural output value**

Year	Total	Cultivation %	Husbandry %
1986	100	74.32	25.68
1992	100	73.90	26.10
1994	100	73.00	27.00

Source: Statistical Annals 1994.

The above statistics give a general picture of the rural economic structure in the whole country. In many localities of the Red River Delta, restructuring in agricultural production has unfolded quite vigorously in the direction of crop and animal diversification, instead of striving exclusively for the increase of food output like before. This is indicated in the expansion of the area under fruit trees and high-value winter vegetables, the replanting of special rice crops (*tám thơm, dự, nàng hương, nếp hoa vàng...*) the increase of lean ratio in pork, and the raising of special kinds of animals, as to meet the demand of domestic consumption and exports. At the same time, the trend to rehabilitate and develop traditional lines and crafts, and to promote small industry-handicraft lines and trade services activities, is also rising in many communes and villages.

It can be said that the shift from an exclusive agriculture to the diversification of line and occupations, from quantity-oriented to quality-oriented, from a good-exchange to a money-based economy, constitutes a

remarkable indication of the rural restructuring in the Red River Delta. In Eastern Nam Bo, the Mekong River Delta, and some other regions, the trend is also seen. The results of our survey in some communes give a clearer picture of this trend.

In Tuong Giang commune

Of all the households interviewed, 3% were exclusively agricultural households, 75% (the highest ratio) were agricultural-plus-handicraft households, 20% were combined agricultural-handicraft-trade service households, and the last 2% were trade households.

In this commune, the average arable land per farmland was only about one-tenth hectare. Moreover, as handicrafts and trade bring a higher income than farming, most of the families here still receive contractual land but do not pay attention to diversifying plants and animals. They focus on the paddy crop and pig raising as a tradition. The only difference here is that they also tend to switch from quantity to quality, from an autarkic production to the production of some higher-value farm product commodities. Thus, in the summer crop, most of the families grow ordinary paddy for a supply of rice for the whole year; but in the winter crop, 60% of the land area are given to growing "golden flower" glutinous rice paddy for sale on the occasion of

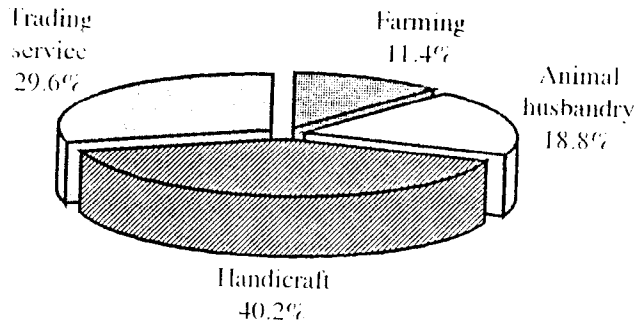
lunar new year festival, because the price of glutinous rice is 2 to 2.5 times higher than that of ordinary rice. Not only farmers now consider pig raising as a way to put money into the saving box and to get manure for the ricefields, but also they choose better breeds of pigs (with higher ratio of clean meat) to meet the demand of the more sophisticated consumers on the market. For non-agricultural occupations, construction line (carpentry, masonry) made up 45.5% of off-farming redundant labour of the households, weaving 36.4%, and trade and services 18.2%.

In terms of structure output value of the average households in the survey, farming made up 30.2% (18.8% for cultivation, and 11.4% for livestock breeding), small industry-handicraft lines (carpentry, masonry, weaving) 40.2%, and trade and services 29.6%.[1]

This structure of total output can be seen in the following diagram of economic structure of Tuong Giang commune.

[1] Results of survey in Tuong Giang commune (questionaire part).

Diagram of Economic Structure of Tuong Giang commune



In Phong Khe commune

As has been said, except the two hamlets of Duong O and Dao Xa which are engaged mainly in small-and handicraft-industries, the remaining 2 hamlets Ngo Khe and Cham Khe, still focus on farming. Thus, of all the households in the survey, exclusively agricultural households made up 15% (that is 5 times more than in Tuong Giang commune), farming + small industry + handicraft households 54%, farming + small industry + handicraft + trade + service households 29%, and completely non-agricultural households 2%.

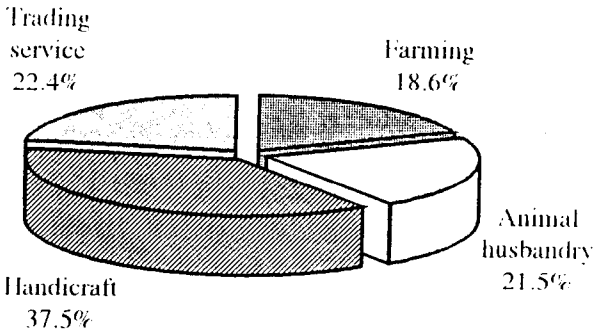
As with Tuong Giang commune, in Phong Khe agricultural production concentrates on rice paddy and pigs. However, no attention is given to diversifying to higher-value crops and animals, so farming here is still characterized by a predominant autarkic. In responding to our interviewing question, many heads of exclusively agricultural households said: Average per-capita arable land in the commune is only 1.4 *sào* = 504m^2. Therefore, with two paddy crops a year, a family of (averagely) 5.4 members can at best produce just enough food for daily consumption. As for pig raising, every year about 150-200 kg of pork can be sold to cover necessary expenses. Most of the families grow winter vegetables as a supplement for their daily meals, not for sale.

As agricultural production provides just one-third of employment to the workforce, most of the families in Phong Khe rely mainly on small-and handicraft-industries expansion to solve the problem of labour redundancy. Of the households with a mixed economy (farming + handicraft, or farming + small industry + trade services) during the booms prior of Ordinance 406/CP banning fire-crackers, some 70.9% of the redundant workforce were engaged in the manufacture of "*zo*" paper for fire-crackers making in off-farming time, 5.8% in carpentry and masonry, 1.2% in making

bricks and tiles (mainly for local consumption), and the remaining 22.1% in trade and services. Even for the exclusively agricultural households, during off-farming time, some 33.3% of their workforce have to find additional employment, for instance, working as aids to papermaking households... In terms of average total output value of the households in the commune surveyed, agriculture made up 40.1% (of which 18.6% for cultivation, and 21.5% for livestock breeding), small-and handicraft-industries 37.5%, and trade, services 22.4%.[1]

This can be seen in the following diagram:

Diagram of Economic Structure of Phong Khe commune



[1] Results of survey in Phong Khe commune (questionaire part).

Compared with the general situation of rural economy restructuring in the whole country, particularly in the Red River Delta, the restructuring of rural economy in the two communes of Tuong Giang and Phong Khe has made a remarkable achievement in the direction of diversifying lines and crafts, creating more jobs, and raising income, despite some inhering factors of uncertainty, especially market risks.

In Tu Ly commune

Like almost all other communes of Da Bac district, Tu Ly is a sparsely populated large area. Arable land (including both water ricefields and hill-and-slope fields) makes up but 10% of the natural acreage, averaging 864m2 per head and 1,905 m^2 per farmland, that is only 58% and 61% respectively of the average figures in the whole country.

Of all the households interviewed, 60% complained of lack of water ricefields, and 66.4% of hill-and-slope fields. In the whole commune, 16% of all households had no water ricefields, and nearly 45% no hill-and-slope fields. Moreover, 92% of all households replied completely on farming (including both cultivation and livestock breeding); the rest were engaged in some petty jobs such as good trading for life or selling farm and forest products in nearby commune and district markets.

As thus, the restructuring of rural economy in Tu Ly commune is slower, by far, than the average pace in the whole country, or even in the mountainous and midland provinces of northern Vietnam (with 91.2% agricultural and 8.8% non-agricultural households).

On average, in the structure of household income, agriculture (both cultivation and livestock breeding) represented 95.5%, and sideline handicrafts and petty trade 4.5%.

Under these circumstances, in order to create more jobs and to raise income, the diversification of crops and animals should become the principal measure in the process of restructuring of agricultural production and combining agriculture with forestry in the locality.

Apart from the water fields which are mostly put under rice paddy, in the past 10 years, the hill-and-slope field area was increasingly used for many different plants. During the early 1980s, dry paddy, maize, and manioc were grown in considerable quantities for daily consumption. In recent years, hybrid maize and edible canna have been increasingly planted, as they have high yield, and can be used as subsidiary food and animal feed. The area devoted to short-term industrial crops such as soya bean, pea, groundnuts, sugar canes has been expanded, as they bring in better cash income. As food production in the country is increasing day by day,

and commodity circulation between the plains and highlands is getting more convenient, 1 kg of soya bean or groundnut is worth 2-3 kg of rice paddy. Therefore, for some fields which the ethnic minorities had formerly to wait for the rain to grow rice, they now switch to the cultivation of vegetables, subsidiary food crops, and short-term industrial crops.

According to statistical data given by the local authorities, at this time Tu Ly has 140 hectares of edible canna; 100 hectares of maize, soya bean, and groundnuts; 34 hectares of fruit trees; and 20 hectares of coffee inter-cropped with ginger, taro, and potato when still young.

In 1993 and 1994, some families in Tu Ly started to grow the Taiwanese Dai Duong sugarcane strain, which has high yield. In the whole Da Bac district, 100 hectares have been now put under this sugarcane strain, and in the coming few years, 1,000 hectares will follow suit. The sugar plant of Hoa Binh province, built near the town, is capable of consuming 700 tons of sugarcane per day; and this is the importance factor in promoting the expansion of industrial crop planting areas.

Considering the income structure of the household economy derived from plant products in 1994, rice paddy represented but 20.57%, while assorted bean and

pea 55.35%, manioc 10.16%, maize 6.49%, edible canna 5.07%.[1]

As for livestock breeding, in 1995 Tu Ly had 995 buffaloes, 262 cows, and over 2,000 pigs (that is two animals per household on average). Like other mountainous communes before, the people of various ethnicities in Tu Ly raised buffaloes and cows for power, and pigs for daily consumption but, now they raise livestock also for sale. Several households have started to keep a herd of 10-20 buffaloes and cows each; and some households specialized in pig raising are now able to sell a few tons of meat per year.

Beside agricultural production, in recent years with food assistance from the PAM afforestation program, and particularly with funding and technical assistance from the Government's Program 327, two of the 14 hamlets in Tu Ly have grow a total of 200 hectares of forest (the best household making 9 hectares). The trees which were grown included eucalyptus (mainly on poor soil), and others such as (*"luồng" "lát"*, and fruit trees (on suitable soil). It is estimated 1 hectare of eucalyptus consists of 2,500 trees; after 7 or 8 years, 100m^3 of wood can be obtained, and each m^3 can fetch about 80,000VND; as for "*luồng*", "*lát*", and fruit trees, they surely bring in higher income. In particular, a few

[1] Results of survey in Tu Ly commune (questionaire part).

households in Tu Ly have experienced with persimmon cultivation, selling the fruit and the cuttings, and earning in one case tens of millions of VND. However, these well-to-do households only make up a small proportion.

V. UTILIZATION AND MANAGEMENT OF NATURAL RESOURCES, MAINLY LAND AND WATER

As a result, nature operates according to the law of self-adjustment and self-balance among the integral interdependent elements. For tens of thousands of years, the traditional agriculture existed, and humans mainly adapted to the natural conditions; hence, ecological equilibrium was preserved. But over the last 300 years, since the shift to the industrial culture, together with the population explosion, humans have exploited several natural resources, causing a serious environmental crisis. Pristine forests are disappearing, desertification is spreading, many animal species have been exterminated, air and water have been contaminated, greenhouse effects have increased, and the ozone layer has been depleted and disrupted in several places, entailing global climatic changes with unforeseen disasters.

In Vietnam today, industry is still small, and only 20% of the population live in cities and towns. Nevertheless, air and water contamination has dramatically increased in the larger towns and cities.

In regard to agriculture and rural area, where 80% of the country's population live and over 70% of the social workforce make their livelihoods, Vietnam is confronted with the degradation of the two most important natural resources for a sustainable development, i.e. land and water.

It should also be mentioned that, as in several other countries in the world, in Vietnam[1] the people refer to their nation as "land-water" (*đất nước*). It means that from time immemorial our forefathers have taken land and water as the organic factors linking their lives in all four aspects: a/ national territory (geography-politics); b/ production conditions (economy); c/ the place of birth and habitation of the community (society); and d/ the religion dedicated to Mother Earth, Mother Water, and attached to these two mothers, also Mother Mountain and Forest (culture).[2]

From the above perceptions, the utilization and management of land and water have for many centuries constantly been the center of attention of the whole national community. This has been institutionalized into

[1] In terminology, the Chinese describe their country as the territory under the Emperor's reign; the English and the Germany the land of father or mother (Fatherland, Motherland); and the Russian the place where they are born (Rodina)...

[2] Cults of *Mau* (Mother): Mau Lieu (Mother Earth), Mau Thoai (Mother Water), Mau Thuong Ngan (Mother Moutain and Forest), which are quite prevalent in many rural areas of Vietnam.

rulings of the State legislation, village conventions of the Kinh people in the plain and oral regulations of many ethnic minorities, and it has been elevated to sacred principles in popular beliefs.

However, in this century, with many historical changes, there have emerged many problems related to the utilization and management of land and water.

According to 1993 statistics, the total natural area of the country was nearly 33.1 million hectares, of which 7.3 million hectares has agricultural land, 9.6 million hectares forest land, 1.1 million hectares land for specialized use, 774,000 hectares residential land, and the remaining 14.2 million hectare were barren land, mainly waste land and bare hills as a result of loss of forests.

A detailed analysis of land utilization in 7 ecological regions shows the following situation:

Table 21: **Utilization of land in the whole country and 7 ecological regions**

Unit: 1,000hectares

	Breakdown					
	Total land area	Agricul-tural land	Forest land	Speciali-zed use land	Reside-ntial land	Barren land (a)
All country	33,100	7,348	9,641	1,118	774	14,218
- Northern Mountainous + Midland Regions	10,296	1,293	2,004	230	210	6,559
- Red River Delta	1,251	721	52	176	83	219
- North-Central Region	5,117	693	1,868	161	69	2,326
- South Central Coastal Region	4,519	533	1,717	134	61	2,073
- Central Highlands	5,611	573	3,294	84	58	1,604
- South-Eastern Region	2,347	937	528	147	126	609
- Mekong River Delta	3,957	2,598	178	186	168	828

Source: Statistical Annals 1994

(a) Including waste land, barren hills, and unused land.

Compared to the natural area of other ecological regions, the Mekong River Delta had the highest ratio of agricultural land (66%), followed by the Red River Delta (58%), and eastern Nam Bo (40%). The remaining regions all had a lower ratio than the average of the whole country (22%). As for forest land, the Central Highlands had the highest ratio (59.9%), then the South-Central Coastal Region (38%), and the North-Central (37%); and the remaining regions had a ratio lower than

the average of the whole country (29%). Regarding barren lands, including mainly waste land and bare hills as a result of loss of forests, the most serious situation was found in Northern Mountainous and Midland Regions (64%), then the South-Central Coastal Region (46%), and the North-Central (45%).

Below is an analysis of the socio-economic impact on the utilization of various types of land relating to rural development.

1. Utilization and management of forest land

Due to their topographical, climatic features, and soil in the 7 differing ecological regions, Vietnamese forests are highly diverse: sea-water inundated coastal forest, fresh-water swampy forest, evergreen big-leaf lowland forest, evergreen big-leaf mountainous forest, and half shedding needle-leaf forest or shedding needle-leaf forest at altitude of over 1,000 m which mix with other kinds of trees and plants often seen in temperate zone. The World Biological Association has confirmed Vietnam is a 6/8 center of bio-diversity in Southeast Asia. As for flora, there are 1,064 families, 7,172 branches, and 26,819 species; which include many kinds of precious-wood trees, oil trees, medicinal plants... For fauna, there are 270 species of wild beasts,

66 species of bird, 33 of which are rare ones (Myanmar, Thailand, and Malaysia have 2 are species each).[1]

Over thousands of years of development, the Vietnamese people have exploited, mainly the lowland areas which belongs to a range of coastal plain provided with the fertile alluvial soil from a network of rivers from the North to the South, and the narrow, flat valleys in the midland and mountainous regions.

In 1943, forest of various types in Vietnam still made up 67% of the total acreage of the country[2], that is equivalent to 22 million hectares. But half a century later, only about 29% or 9.6 million hectares were left. Thus, within 50 years, Vietnam lost about 12.5 million hectares of forest, of which just a small portion (about 1 million hectares) became agricultural land, and most of the rest was degraded into waste land and barren hills.

According to FAO documents, the world average forest vegetation cover is 31.4%, and the lowest degree for environmental security is 33.2%. Thus, the degree of vegetation cover in Vietnam is lower than the average for the whole world and lower by far than the amount required for environmental security. Figures for other countries in the region, in 1990 show the degree of

[1] Source: Vietnam's forest resources 1994. After Nguyen Van Truong: *Forestry and environment in Vietnam* (Report of Vietpro 1996 Projects).
[2] By another document: 57.5%, that is 19 million hectares.

vegetation cover of Cambodia was 69%, Indonesia 65%, Laos 57%, Malaysia 54%, Myanmar, 44%, the Philippines 27%, and Thailand 26%.[1]

Analyzing all the 7 ecological regions, the loss of forest and the areas of waste land and barren hills are as follows:

***Table 22:* Alterations of Forest Land 1943-1993**

Territorial region	Natural area (1000 ha)	Forest area				Area of waste land and barren hills 1990 (a)	
		1943		1993			
		1000 ha	%	1000 ha	%	1000 ha	%
All country	33,100	22,217	67.0	9,641	29.0	11,421	34.5
- Northern Mountainous + Midland Regions	10,296	8,400	81.5	2,004	19.5	5,943	58.0
- Red River Delta	1,251	38	3.0	52	4.1	91	7.2
- North-Central Region	5,117	3,310	64.5	1,868	36.5	1,739	34.0
- South-Central Coastal Region	4,519	2,800	62.0	1,717	38.0	1,606	35.5
- Central Highlands	5,611	5,200	93.0	3,294	58.7	1,357	24.0
- South-Eastern Region	2,347	1,267	54.0	528	22.5	355	15.0
- Mekong River Delta	3,957	910	23.0	178	4.5	329	8.3

Source: Statistical annals 1994; World Bank Data for 1943.

(a) after Nguyen Van Truong: ibid

There are many reasons for the serious decline of forest area are several, of which the main ones are as follows:

[1] *Forest Resource Assessment*, 1990. After Nguyen Van Truong, Ibid.2

First, about 2 million hectares of tropical forest was destroyed by wars lasting over 30 years, particularly the second Indochinese war, with 15.5 million tons of bombs and shells and 18 million gallons of defoliant toxic dropped by the US armed forces on both the North and the South of Vietnam[1]. This includes 500,000 hectares of rich forest in the highlands and 124,000 hectares of seawater inundated forest in the South (mainly cajuput and mangrove forests in U Minh) which were completely destroyed. Besides, bombs and shells turned up billions of m^3 of land surface, worsening the erosion rate.

Second, a population explosion has occurred in recent decades. Especially, the natural increase rate of ethnic minorities in the mountainous and midland regions was often considerably higher than the national average rate. (For instance, between the two general censuses of October 1979 and April 1989, when the annual average increase rate of the whole country was 2.3%, that of the Tay ethnicity was 2.9%, Thai 3.2%, Muong 3.0%, Nung 2.4%, H'mong 3.2%, Dao 3.3%, Gia Rai 2.9%, Ede 3.4%, Ba Na 2.4%, So Dang 3.0%...). In addition, about 3-4 million people from the plain provinces migrated to the mountainous provinces

[1] Rees Williams: *Unwinding the Vietnam War - From War to Peace.* The Real comet Press, Seatle 1987, p.8.

in the program of building new economic zones. High population growth rate (both natural and mechanical) in the mountainous and midland provinces created an ever bigger pressure on forestland. Also, despite a gradual diminution over the years the nomandic farming and nomandic life, or sedentary farming but nomandic life, of some ethnic minorities, remained an important reason to the decline of forestland.

Third, before renovation, there had been defects and errors in some State economic management policies, particularly the policy of self-sufficiency in food for the mountainous region, of restricting the free circulation of farm-product commodities among regions, of over extending the areas of State farms and State lumber sites which resulted in a shrinkage of the local inhabitants' arable land. These policies drove the mountainous peoples to further raze the forest for food crop cultivation to overcome hunger, for timber to build houses, and for firewood. This is not to mention the unplanned exploitation by the lumber sites to reach the timber targets for exports every year, which caused deforestation no less severe than the people's spontaneous destructive acts.

According to data of the Institute for Forest Investigation and Planning, in 1991 about 120,000 family households of traditional nomandic farming

destroyed more or less 180,000 hectares of forest. From 1986 to 1990, the forestry line, including both state and non-state enterprises, extracted nearly 17 million m^3 of wood, that is an annual average rate of 3.4 million m^3 or an equivalent of nearly 80,000 hectares of forestland.[1] That is not to mention the forest fires which destroyed tens of thousands of hectares, and the equivalent of hundreds of thousands of hectares from the volume of firewood the people gathered for their daily cooking (during 1986-1990, the average volume of firewood extracted every year was 29.2 million m^3).[2]

This situation can explain why despite an area of appropriately 9.6 million hectares of forest in the whole country according to statistical data, only 384,000 hectares are rich forest, 949,000 hectares medium forest, 1,382,000 hectares poor forest, and the rest exhausted forest of very little value.[3]

The decline of forestland has had serious consequences.

In rainy seasons, year-by year, the crest of floods is often higher, the water volume bigger, and the rush

[1] Ministry of Forestry: *Thirty Years of Building and Developing Forestry.* Statistical Publishing House, Hanoi, 1991. After Nguyen Van Truong: Ibid.

[2] Ibid.

[3] After Nguyen Van Truong: Ibid. In 1994, the General Statistical Office gave the following data: Vietnam has over 12 million hectares of forests, comprising 1.1 mil. hectares of planting forests.

faster, causing terrible "sweeping flash floods" in many localities of mountainous and midland regions, and severe inundation in the plain areas. Devoid of the flora cover, the surface of land is heavily eroded, badly affecting crop yields. Even in many hilly areas, stones and pebbles are laid bare, making it impossible to conduct cultivation and re-afforestation. Soil and sand are washed away, settling in river beds and making them shallow; particularly, the volume of water reservoirs thus become smaller and the reservoirs themselves many even be gradually filled up. According to Bui Minh Vu and Hoang Minh Ky, the soil erosion coefficient in the Da river basin is 1,220 ton/km^2 and in the Red River basin 11,200 ton/km^2. Every year, the Da river washes away 62 million m^3 of silt, and the Red River 100 million m^3 of silt.[1]

In dry seasons, many streams dry up, the water levels of rivers subside, water flows decrease and are not sufficient to supply agricultural and industrial production, and daily needs of the people in the upper and middle sections of the river system. At the same time, seawater invades deeper and deeper into the lower sections of rivers, particularly in the Mekong River Delta and the Red River Delta. For example would be

[1] Bùi Minh Vũ, Hoàng Minh Ký: *"Lâm nghiệp và môi trường bền vững"* (Forestry and sustainable Environment), Review *Economic Studies*, Dec. 1995.

the Da river, which supplies 50% of the water volume of the Red river. At Hoa Binh town during rainy seasons, the highest water flow is 13,600 m^3/second, while in the dry season, the lowest water flow is only 174 m^3/second, i.e. a difference by 78 times!

It is not be an exaggeration to say that if the pace of forest destruction of the recent decades is not checked, in just a few years Vietnam will no longer have any area under forest cover. And if Vietnam is deprived of all forests, the area of eroded, washed-away, and degraded land will further increase, river water sources will not be smooth; and flood in the rainy season and drought in the dry season will be worsen. Under such circumstances, how can we achieve sustainable development for agriculture and rural area, even for the economy and society of the whole country?

Faced with the above risks, even while the resistance war against US aggression for national salvation was raging fiercely, the Government of the Democratic Republic of Vietnam, now the Socialist Republic of Vietnam, promulgated Decision 38/CP date December 3, 1968, to organize sedentary farming and sedentary life for ethnic minorities so as to restrain their destruction of forest for hill-and-slope crop fields. Again on December 3, 1973, the Government promulgated Decision 272/CP on the allocation of

contractual land and forest to cooperatives so that they can combine the promotion of agricultural production with the protection of forest and development of forest resources. However, for a long period of time, the above policies failed to integrate to people's life, due to several subjective and objective reasons. And only after the promulgation of the Party Secretariat Directive 100 and the Party Politburo's Resolution 10 on the allocation of land and forest to the peasant households that the situation saw positive changes.

By the early 1990, in the whole country, sedentary farming and sedentary life were carried out for 324,500 households with 1,902,800 people from 1,185 communes belonging to 68 districts. At the same time, the land and forest areas allocated to the people was, 4.3 million hectares, of which 1.5 million hectares remained forest.[1]

However, due to the pressing requirement for self-sufficiency in food during 1981-1990, and particularly the lack of funds and technical guidance, all through this decade, only 276,200 hectares of forest were tended and protected, and 984,000 hectares were grown anew. Every year, on average, 100,000 hectares were grown anew and tended, that is only half of the area which had been destroyed. To continue to improve the situation, on August 19,1991 the Law on Forest Protection and

[1] Ministry of Forestry: Ibid.

Development was proclaimed. In the same year, the Government decided to ban the export of logs and sawed wood. More than a year later, the Government issued Decision 327/CP. (September 1992) launching a Program for regreening waste land and barren hills, protecting and tending original forests, with an investment capital for the first year of 60 billion VND. About 1,200 projects have been deployed since 1993. Thanks to financial assistance and technical guidance to farmer households, many projects under Program 327 have obtained some remarkable results. At the same time, implementation of the program for sedentary farming and sedentary life has been intensified with more investment from the State budget and financial assistance from international organizations.

The result was that over the 5 years, 1991-1995, the area of concentrated afforestation attained 730,000 hectares (on average, 146,000 hectares per year), and in scattered areas, 2,000 million trees were grown, helping to solve the problem of fuel for the people. Besides, the policy of restricting the export of logs and sawed wood also helped reduce the volume of extracted wood for trade purposes from 3.4 million m^3/year on average during 1986-1990 to 0.9 million m^3 during 1991-1995.[1]

[1] Ministry of Agriculture, Food and Foodstuffs: *Orientation for agro-Forest-Fishery Development 2000-2010* (April. 1995).

However, due to the limited capital of Program 327 and other sources, such as the fund for sedentary farming and sedentary life, the deployed projects being scattered, the complicated procedure of capital allocation, and the slow process of disbursement, the pace of re-forestation cannot catch up with the pace of forest destruction.

The investigation of the Rural Development Research Team in Tu Ly commune, Da Bac district, throw into relief some concrete aspects of the above general situation.

Formerly, over 90% of the area of Da Bac district in general, and Tu Ly commune in particular, were covered by tropical forests. By 1990, only 41,800 hectares were left of Da Bac's forest land, that is 50.25% of the total natural land area. Of these 41,800 hectares, 23,400 hectares were reserved as protective forest for Da river, 8,000 hectares were tended forest, and 10,000 hectares could be exploited.

The reasons for the loss of forest cover on 40% of Da Bac district's natural land area, and another 10% being reduced to poor forest can be traced to the consequences of forest clearing for hill-and-slope crop fields so as to meet the requirement of self-sufficiency in food for a growing population, and also to the extraction of wood for sale and for fuel. According to

the data, in the 1980s, every year the State logging sites and the people of Da Bac district extracted, on average, 1,500 – 2,000 m^3 of styrax wood for paper making, 600-800 m^3 of construction wood, 4,000 – 4,500 and about 1.2 million assorted bamboo trees.[1] This pace of forest destruction in Da Bac and other districts of the Da river basin has contributed considerably to the volume of soil eroded and washed into the Da river reservoir (with 93 billion m^3 of water reserve), threatening the sustainability of the Hoa Binh hydro-power work.

In Tu Ly commune, due to the process of settlement and the establishment of livelihood of a number of differing ethnicities, including nearly 200 Kinh households with 860 people who came from the plain to build the new economic zone during the 1960s, and tens of other households having recently come from the communes formerly located in the area of Da river reservoir during the construction of Hoa Binh hydro-power work, most of the households in the commune have no or little ricefields, so they have to clear the forest for hill-and-slope fields at places of 25-30% gradient upwards.

Of all the households interviewed, those without crop fields among the Kinh made up 65%, the Muong 12%,

[1] Da Bac Distric People's Committee: *Socio-economy Development Project 1991.*

and the Dao nearly 7%. Therefore, it was not a coincidence that the average per-capita area of hill-and-slope fields in Tu Ly commune was larger than water fields by 50%. Even so, two-thirds of the households said they did not have enough land for production and daily life. Once the people have to rely on hill-and-slope fields for crop cultivation, after a certain period time the soil will get exhausted and they will have to destroy the forest at some other places for new hill-and-slope fields. Thus, the vicious circle of poverty and environment devastation keeps increasing unceasingly. In the meantime, as with the overall situation of the country, the allocation of contractual land and forest to peasant households, as a State policy which has been in force for 10 years now, was unfolding very slowly. By 1995, over 53% of the households under survey had not been allocation land and forest, of which the Kinh were 68.7%, the Muong 52%, the Dao 51%, and the Tay 100%.

Of the 14 hamlets in the commune, only two, Tay Mang and Xeo, have in recent years received contractual land and forest, within the framework of the Project for Da River Protection or Program 327, to the tune of averagely 8,000 m^2 each. Thanks to the State capital investment and technical guidance by the agro-forest workers, the protection and tending of protective forests, and the regreening of waste land and barren hills on 200

hectares of the said hamlets have yielded initial results. As the interests of the forest growers and protectors are clearly defined, unplanned forest devastation has declined and young trees have been better tended. Also during this time, in Mit hamlet, 30 households with 200 people of the Dao ethnic minority switched from nomandic farming to sedentary farming. In 1991, the people of the hamlet reclaimed 7.5 hectares of land along the river bank, 3.5 hectares of water fields, and produced 29 tons of foods in paddy equivalent; thus, they had enough to eat, helping reduce forest devastation.

However, as there are still many households which have not been allocated contractual land and forest, forests are grown in one place to be again destroyed in another place.

2. Utilization and management of land and water in agriculture

As has often been emphasized, Vietnam (in 1993) had 7,348,000 hectares of agricultural land[1] of which the Northern Mountainous and Midland Regions had 1,293,000 hectares, the Red River Delta 721,000 hectares, the North-Central Region 693,000 hectares,

[1] *Statistical Annals 1994.* Recently, by "Results of overall investigation into agriculture and rural area... the whole country had 6,343,000 hectares of agricultural land, making up 19.3%. Here, for the sake of uniformity among different chapters, we still use the data of Statistical Annals 1994.

the South-Central Coastal Region 533,000 hectares, the Central Highlands 573,000 hectares, South-Eastern Region 937,000 hectares, and the Mekong River Delta 2,598,000 hectares.

Due to the topographical, soil and climatic diversity of the 7 ecological regions, the sustainability of agricultural land utilization differs from one region to another.

- The Northern Mountainous and Midland Regions has a monsoon climate, with an average annual rainfall of 1600-2500mm (mainly from late April to October). Considerably higher rainfall, and steeply sloping terrain puts 40-50% of agricultural land in the region at high risk of erosion.

- The Red River Delta also has a monsoon climate, with an average annual rainfall of 1800 - 2000mm. The region has a generally flat terrain, most of which has been enriched from time immemorial suitable to cultivation of rice paddy and subsidiary food crops. In general, the rate of land degradation here from the impact of natural factors is low, except for a narrow coastal stretch that is regularly invaded by sea water during the dry seasons.

- The North-Central Region has an average annual rainfall of 2500-2800mm, mainly in stormy season from July to November. Red and yellow soil is found in most

of the mountainous and midland areas, alluvial soil in the deltas of the rivers, and sandy soil in the narrow coastal stretch. About 35%-40% of agricultural land in this region has a medium rate of degradation.

- The South-Central Coastal Region is characterized by a protracted dry season, high temperature, and limited rainfall of about 700-1000 mm per year. As in the North-Central Region red and yellow soil is found mainly in mountainous areas, and alluvial soil in the valleys and small deltas along the sea coast. Despite its terrain bending, 50% of agricultural land here has a low rate of degradation due to a minimal rainfall.

- The Central Highlands, with most of its soil having a basalt origin and with an altitude of 500mm upwards, is especially suitable to perennial industrial crops, and has a medium rainfall of 2000-2200mm per year. About 50-60% of its agricultural land has a medium rate of degradation.

- South-Eastern Region (i.e. the eastern region of the southern part of South Vietnam), has a considerable land area of basalt origin and the remaining area of impoverished grey soil, with a relatively flat terrain intersected with low and medium-height hills and mountains, and an average annual rainfall of 2000-2200mm. Over 90% of agricultural land here has a low rate of degradation.

- The Mekong River Delta has a average annual rainfall of 1800-2000mm, and a flat terrain of mostly alluvial soil irrigated by a from time immemorial system of interlacing rivers and waterways, and still supplemented every year with a considerable volume of silt during the flood season. There are also some low-land areas with a serious saline, acid, and aluminous contamination.

During the first 13 years after national reunification, due to a chronic shortage of food, about 90% of agricultural land was dedicated to the cultivation of cereals, mostly rice paddy. Since 1989, under the conditions of market economy and open-door policy to the outside world, agricultural production has been increasingly transformed towards intensive farming, multiple cropping and crop diversification, thus continuing to increase the total food output to meet the demand of domestic consumption and exports. At the same time, the area under various kinds of vegetables and beans, short-term and long-term industrial crops, and fruit trees has substantially expanded. This diversification and introduction of better crop rotations inter-cropping, and crop overlapping with various plants, particularly rice paddy + assorted beans, groundnuts + vegetables, subsidiary food crops have

been some of the effective measures utilized to preserve soil fertility.

The intensive farming measures of primary importance in Vietnamese agriculture have for centuries included the constant improvement and expansion of the irrigation system, combining water supply and water drainage to combat floods in the rainy season, and drought and sea-water invasion in the dry season. The age-old experience of Vietnam's traditional water-rice civilization has been summed up into this phrase: "*First, water; second, fertilizer; third, hard work; and fourth, seeds*". Today, although agricultural science and bio-technology have continued to develop, the above tradition, in which water holds first place, is still of the highest practical value for agricultural production.

The irrigation system now includes over 3,000 km of dykes along the system of rivers in the North which are under constant supervision and management, to consolidate and strengthen the system every year to combat flood in the rainy seasons in the Red River Delta and the deltas of the Ma river and Ca river in North-Central Vietnam. Over 2000 km of sea dykes along the Coastal regions of Central Vietnam have worked to prevent sea-water invasion during the raging storms. For the Mekong River Delta, which is all low-land area, the local people are well experienced in adapting as well as

avoiding bad weather. This includes adaptation acquiring silt during the flood season in order to augment soil fertility and to wash away salinity and acidity from some areas. Avoidance mean seeking ways to shift crop seasons so as to avoid natural disasters, to build earth works so as to prevent inundation or drought especially for specialized crop areas, and to recover some saline forests in order to avoid landslides in the areas which continue to be raised by alluvial soil. Irrigation systems have also been especially improved in the recent decades. Instead of relying mainly on the rain for agricultural as before, by 1994, of the total cultivated area every year, mostly rice paddy area, the ratio with water supply from irrigation works was 41.3% and with water drainage by irrigation works 30.3%.[1]

In addition to irrigation works, the application of high-yield crops has been promoted in many localities. However, the diffusion of those new crops, particularly new rice types, which is referred to as "*the green revolution*", has often led to excessive use of chemical fertilizers and insecticides, causing negative effects on both resources, land and water.

[1] Source: *Results of overall investigation into agriculture and rural area 1994.* Vol. 2, Hanoi, 1995.

The quantities of chemical fertilizers and insecticides, produced both at home and imported, which are used in agriculture, have grown steadily in recent years.[1]

Table 23: **Facts of Utilization of Chemical Fertilizers and insecticides**

	1990	1991	1992	1993
+ *Chemical fertilizers*				
a/ Production at home (1,000 tons)	354	450	530	714
b/Imports (1,000 tons)	2,122	2,662	2,455	3,028
+ *Insecticides*				
a/Production at home (1,000 tons)	9	12	11	14
b/ Imports (million USD)	9	22.5	24.5	36.4

Compared with other countries in the region, the average quantity of chemical fertilizers used in Vietnam on 1 hectare of arable land is rated medium, which is higher than Thailand and the Philippines, and lower than Indonesia and Malaysia. But the quantity of insecticides used in Vietnam is rated among the highest. According to FAO documents, during 1990-1991, the average cost of insecticide use on 1 hectare in China was 25.6 USD, in India 24.9 USD, in the Philippines 26.1 USD, while in Vietnam, it is 22.3 USD the

[1] Source: *Statistical Annals 1994.*

Northern provinces and 39.3 USD in the Southern provinces.[1]

The excessive use of chemical fertilizers, although giving a higher rice yield in the short-terms, has turned arable land to laterization and declining porosity. In particular, the insecticides used in Vietnam are often organophosphorus compounds[2] containing several lingering toxins which have serious consequences for the ecology, such as killing off natural predators, contaminating many kinds of fish, shrimps, and crabs in water fields, and in several cases, poisoning humans through contaminated air, water, and farm products. Sustainable agricultural development could not be achieved if this situation persists. Therefore, since 1992, the Ministry of Agriculture and Foodstuffs Industry has banned the use of 20 of the most poisonous insecticides. But in short time after the ban came into effect, little change has been seen in their use, as stocks had been bought before the ban.

Recently, the use of microorganic fertilizer and the method of IPM (integrated pest management) have brought real, positive results, but in fact, they have been conducted in only a few localities.

[1] FAO intercountry report for integrated pest control in rice in South and Southeast Asia.

[2] Such as organophosphates, organochlorine, pyrethoids, copper sulfate, zinc phosphate...

In Tuong Giang commune, where our survey was conducted, most of the families still used animal manure and green manure according to traditional experience, and they obtained a fairly high yield of paddy, from 150 to 180 kg per *sào*, (4.5-5 tons of paddy per hectare). In Phong Khe commune, the contamination of soil, water, and air have reached alarming levels. The reason was not primarily the excessive use of insecticides in agriculture, but the presence of dozens of paper recycling enterprises located in Duong O hamlet discharging all their waste water containing toxic chemicals into the nearby waterways and rivers, harming to rice paddy, other crops, aqua-products, and jeopardizing the local people's quality of life.

Urgent attention should thus be given to planning and management of the small industry and handicraft production sectors in rural areas in compliance with the national standards of ecological environment protection in order to ensure a sustainable agricultural and rural development.

VI. SOCIAL STRATIFICATION, HUNGER ERADICATION AND POVERTY ALLEVIATION

Two "*giants on the theory of social stratification*" have been recognized by sociologists around the world for over a century: Karl Marx (1818 –1883) and Max Weber (1864-1920). According to their analyzes, the

principal factors leading to social stratification and a rich-poor differentiation, are *wealth* (assets), *intellect, prestige* or *power*. These factors themselves are related to the process of social division of labour, the partitioning of lines and occupations, that are the basis of the development of social productive forces.

Marx focused on analyzing the rich-poor differentiation leading to class differentiation on the basis of differences in ownership of the means of production and capital (assets). He also referred to the stratification in each class, depending on sophisticated or simple type of labour, the extent of proficiency in an occupation (intellect, skill), and the differences in power derived from variations in economic means. Without contradicting Marx, while conducting a constant "intellectual dialogue"[1] with him, Weber concretized and further developed understanding of the factors of social stratification. The fact that men are not equal in intellect, and power according to Weber is determined not only by economic factors, but also by other social considerations, such as prestige and chances of certain people in pursuing their will.[2]

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[1] Celia S. Heller: *Structured social inequality, a reader in comparative social stratification.* London, 1970. After Tuong Lai: *Sociological survey on social stratification.* Social Sciences Publishing House, Hanoi, 1995, pp. 20-21.

[2] Max Weber: *Essays in Sociology.* After Tuong Lai: Ibid., p.25.

It should be added, however, that these principal caused of social stratification can hardly play their role in a natural, autarkic economy. They only become strong engines for stratification in a market economy, i.e. where difference in ability to use *assets, intellect, prestige* or *power* operate to create a high or low profitability. In other words, assets, intellect, prestige, or power must be turned into market competence.

In Vietnam, prior to renovation, anxiety concerning the "class differentiation", which would necessarily unfold quickly in the countryside after land reform, led to a precipitate campaign for collectivization. This was combined with a centralized bureaucratic management mechanism, and a regime of egalitarian distribution in the cooperatives. All these transitions drove production to stagnation and, as a result social stratification in the countryside was minimal.

According to an investigation conducted by the Population and Labour Resource Center, during 1976 – 1980, the average per-capita income in the countryside was 14-15 kg rice per month, and only 10% of rural people had an income of 30-45 kg. During 1981-1986, the respective figures were 16-17 kg and 50-70 kg. In both of these periods, well-off people in the countryside were almost non-existent.

But since the mid-1980s, as Vietnam shifted from a centrally-planned, bureaucratic, subsidy-based economy to market economy, the rich-poor differentiation and social stratification with respect to income and living standards have become conspicuous in both urban and rural areas.

"*Rich*" and "*poor*" are relative concepts which indicate the correlation of income and living standards among people's strata in each country during certain periods. Thus, it is difficult to set common criteria for rich and poor for all countries during their different stages of development. The ESCAP, since 1980 have assessed the poverty line of developing countries according to the cost of food and foodstuff necessary to sustain basic needs, which is roughly equivalent to a daily intake of 2100-2300 calories. For instance, in Indonesia during the early 1980s, it was 2100 calories while in China in 1990, 2150 calories...

In Vietnam, the General Department of Statistics in 1993 set the poverty line at 2100 calories per day. Considering the different prices of foods and foodstuffs among regions, the average money income should be 50,000 VND/person/month in rural area, and 70,000 VND/person/month in urban area*.

* In 1996, the Ministry of Labour, Invalid and Social Affairs defined a higher criteria.

By the same method, the average income levels per person per month are determined as follows:

a. Under 50,000 VND for the category of poor households (and under 30,000 VND for very poor households);

b. From 50,000 to 70,000 VND for the category of lower-middle households;

c. From 70,000 to 125,000 VND for the category of middle households;

d. From 125,000 to 250,000 VND for the category of upper-middle households;

e. From 250,000 VND upwards for the category of well-off households.

A rich-poor survey of 91,732 households in the late 1993, representing the each region in whole country obtained the results which are presented in table 24.

Table 24: Average monthly per-capita income and ratios of various categories of well-off-poor households

Region	General average income	Well-off households	Upper middle households	Middle households	Lower middle households	Poor households	
						Total	Very poor households
All country	94,440	429.800	173,530	173.530	61.410	39,280	25,210
- Average income (VND)	100	2.29	13.69	13.69	23.21	22.14	4.58
- Ratio (%)							
1. Northern Mountainous and Midland Regions							
- Average income (VND)	75.370	357.000	158.700	90.590	59.170	38,040	24,040
- Ratio (%)	100	0.96	9.70	34.61	27.26	27.47	4.87
2. Red River Delta							
- Average income (VND)	92.810	44.190	160.190	92.040	60.130	38,920	24,100
- Ratio (%)	100	1.75	15.09	43.58	23.71	15.86	2.67
3. North-Central Region							
- Average income (VND)	74.560	328.630	158.130	88.490	58.660	36.390	19,790
- Ratio (%)	100	1.21	10.62	35.27	26.54	26.36	5.05

4. South-Central Coastal Region						
- Average income (VND)	91.140	393.390	163.490	91.790	58.720	37,540	24.030
- Ratio (%)	100	2.7	14.78	39.58	23.31	19.64	4.14
5. Central Highlands							
- Average income (VND)	73.300	352.000	162.700	90.850	58.400	36.670	23,830
- Ratio (%)	100	1.92	10.67	28.25	24.49	34.68	7.68
6. South-Eastern Region							
- Average income (VND)	138.120	490.360	194.980	109.740	70.210	46.520	30.100
- Ratio (%)	100	4.70	20.19	45.64	15.58	13.90	3.03
7. Mekong River Delta							
- Average income (VND)	113.370	479,400	197,400	108.330	70,130	45.180	30.570
- Ratio (%)	100	4.07	17.39	42.04	18.02	18.48	5.38

Source: Investigation by General Department of Statistics, 1993

Thus, nationwide, the category of well-off households in the countryside made up a very small ratio, that is 2.29%; middle households and upper-middle households 52.36%; and poor households 22.14%[1], while very poor households (i.e. hungry households) constituted 4.5%.

Comparing the highest-income 20% population with the lowest 20%, the discrepancy in average income in the countryside of the whole country was 5.5 times, or 4.9 times in the Northern Mountainous and Midland Regions, 5.3 times in the Red River Delta, 5.2 times in the North-Central Region, 6.4 times in the South-Central Coastal Region, 7.0 times in the Central Highlands, 7.7 times in South-Eastern Region, and 7.8 times in the Mekong River Delta. Comparing the average income between rural and urban households, we have the following picture (see table 25):

[1] The World Bank put the ratio of poor households in rural Vietnam at 51%.

***Table 25:* Discrepancy between rural and urban income**

	Income (1,000 VND)		Rural-Urban discrepancy (time)
	Urban	Rural	
All country	196-220	68-94	2.30-2.90
- Northern Mountainous Region	133-147	50-71	2.30-2.66
- Northern Midlands	178-169	71-93	1.03-2.54
- Red River Delta	180-188	71-93	1.03-2.54
- North-Central Region	170-147	58-75	1.98-2.93
- South-Central Coastal Region	178-171	60-91	1.88-2.97
- Central Highlands	140-167	55-74	2.55-2.55
- South-Eastern Region	265-328	80-138	2.37-3.31
- Mekong River Delta	185-193	85-113	1.70-2.18

Source: Investigation by Center of Population and Workforce Research and General Department of Statistics 1993.

The distribution of income between urban and rural population is thus highly uneven, and the degree of social differentiation is also quite high and widening. Without appropriate policies of socio-economic development, and measures to regulate rural-urban relations, from now to the year 2000 the rural-urban income gap will grow rapidly, and income discrepancy will get significantly larger, creating a great incentive for rural people to go to cities and towns to finds jobs.

Obviously, social stratification and rich-poor differentiation are the unavoidable side-effects of the

process of shifting to a market economy. However, at this time in Vietnam, land is still under public ownership, and the State given peasants the right to long-term land use, with in acreage limit defined for each region. Moreover, as the market economy adopted is under the State management and regulation with a socialist orientation, this social stratification is *basically not a dispossession and pauperization* of the majority of poor people in order to concentrate wealth into the hands of a minority elite of rich people. The current social stratification is due mainly to the renovation of mechanisms and policies, so that a segment of population having favorable conditions in capital, workforce, knowledge experience, and marketing can bring into play their resourcefulness and dynamics to undertake production-business, thus earning a higher income and enjoying a better living standard. In the meantime, other segment of population make only slow progress, and may stall, or even fall back in their living standards (of course, some people have got rich through corruption, smuggling, and other illegal acts, which the entire society and the authoritative organs must combat through strict measures to prevent, drive back, and eliminate).

From a general perspective, the absolute enrichment of the highest-income population 20% and the relative

impoverishment of lowest 20%, emerged as part of a generally higher baseline of living conditions. According to General Department of Statistics, from 1987 to 1993, the ratio of poor households went down from 35% to 22%. In the whole country, during 1993-1994, the average monthly per-capita income of the poor-household category rose from about 39,000 VND to more than 60,000 VND.[1]

However, compared with other countries in the region, the ratio of absolutely poor households in 1993 in our country was still quite high 22.14%. In the meantime, in the early 1990s, the ratio in China was 10%, Indonesia 15%, Thailand 16%, and the Philippines 21%. Particularly, in remote and hard-to-reach areas of Vietnam, and areas hard hit by natural calamities, the ratio of absolute poor households might even reach 40-50%, of which some 5-8% a hungry households, i.e. those which are short of food for 3-6 months a year, and having to rely on regular State assistance.

The results of survey on the causes of poverty among rural households revealed the following:[2]

- Lack of funds (70-80% of all the households under survey);

[1] General Department of Statistica: *Report on the survey of investigation into some principal indicators of household economic life 1994.*
[2] Centre for Population and Workforce: *Poverty in Vietnam.* Hanoi, 1993, p.17.

- Too many children (50-60%);
- Lack of experience in enterprising (40-50%);
- Lack of arable land, lack of jobs opportunities (10-30%);
- Risks, serious health problems (10-15%);
- Small-size family, lack of labour (5-15%);
- Laziness, extravagance (5-6%);
- Social evils (2-3%).

Lack of funds, large families, and lack of experience thus represented the major reported causes of poverty in this survey.

Since the start of renovation, particularly in the 1991-1995 plan, while continuing to eliminate the previous subsidizing policies, the authorities at various levels, the village communities, and mass organizations have been attentive to both following tasks to ensure attainment of the economic growth objectives linked with social progress and equity: a/ To encourage and facilitate all economic sectors, and all households to get rich lawfully, considering this to be the necessity and the stimulus for the general process of economy growth; and b/ To make energetic efforts to eradicate hunger, alleviate poverty, narrow the rich-poor gap, and create harmony, unity , and social stability for development.

This was accompanied by adoption of a range of measures, such as the national program for population

and family planning, the program for job creation, program 327, and the program for sedentary farming and life in mountainous regions. Since mid-1992, the Government has also promulgated policies which are directly related to hunger eradication and poverty alleviation in the countryside, such as ordinance 14/CP (1992) establishing the Bank of Agriculture to extend loans for agro-forestry and fishery, and rural economy development.[1] Decision 72/CP of the Government (1992) provided for a gratis supply of 4 staple items (lighting oil, medicines, school paper, and iodized salt) to the mountainous people; Decision 525/TTg of the Prime Minister (1995) established the *Bank for the Poor*, with preferential interest rates and requiring no collateral for loans. By the late 1994, 41 of the 53 provinces and cities had set up a *Fund for Hunger Eradication and Poverty Alleviation*. A campaign for building "compassion" classroom and "gratitude" houses , allocating land for VAC application so as to take care of solitary elderly people, and setting up credit funds to extend interest-free loans to poor women, have been launched by the people themselves in many localities in accordance with the tradition of "*healthy leaves covering torn leaves*" in village communities since time immemorial.

However, funds are limited, lending formalities are often complicated, and lending time are inflexible and not always suitable to the production cycles of plants and animals. The interests of the employees of the *Bank of Agriculture* and the *Bank for the Poor* are sometimes in conflict with the banks purposes, as the more loans are given the poor, the lower the profits obtained by the banks, and the less the bonuses are received by employees. Therefore, the policy of extending loans to peasants (as well as many other correct policies of the State) may get increasingly derailed from the intended purposes when it reaches lower levels. This is a major pitfall which should be solved in the implementation of State policies in the coming future.

Although our case studies do not fully reflect the diversity and complexity of the process of social stratification, and hunger eradication and poverty alleviation in the rural areas of the whole country, they do reveal some concrete situations and causes as follows:

[1] By the late 1994, about 25-30% of peasant households were extended loans by the Bank of Agriculture, averaging from 500,000 to 1 million VND for each household

- In the Tuong Giang and Phong Khe communes

Table 26: **Average monthly per-capita income and ratios of various categories of households in 1994[1]**

	Well-off households	Upper middle households	Middle households	Poor households
Tuong Giang commune				
- Average income (VND)	501.600	196.000	115.800	46.500
- Ratio (%)	2.0	26.7	65.5	6.8
Phong Khe commune				
- Average income (VND)	1.380.000	216.00	121.600	45.800
- Ratio (%)	3.0	12.0	60.0	25.0

Due to the development of small industry and handicrafts, as well as trade, and services alongside agricultural production, the income of middle and higher households in the above two communes were significantly higher than the average of the whole country, and even higher than the average of the Red River Delta. The income gap between the category of "well-off households" and the "poor households" in Tuong Giang, where agriculture, small industry and handicrafts, trade and services were evenly developed, was generally smaller than in Phong Khe, where some households "*got far ahead*" thanks to their paper-recycling workshops, while many other households

[1] Results of survey in Tuong Giang and Phong Khe communes.

remained exclusively in agriculture. Apart from the income and living standards of the households in these two communes, other indicators based on housing quality and valuable household appliances were also higher than many other localities. Data for Tuong Giang and Phong Khe in regard to solid and semi-solid houses of the families under survey were 100% and 96%, for clean water 90% and 79%, for TV sets (both colour, and black-and-white) 83% and 56%, for radio-cassette players 54% and 37%, video heads 12% and 10%, motorcycles 48.5% and 14% and for refrigerators 6% and 5%. Reasons given for the presence of well-off households in Tuong Giang and Phong Khe, the respective figures were as follows: a/ resourcefulness (that is apart from agriculture, they know how to develop small-and handicraft-industries, trade and services) accounted for 45% and 63%; b/ available funds 54% and 56%, and c/ available workforce 15% and 29%. Reasons for the poor households were as follows: a/lacks of fund 44% and 73%; b/ too many children 29% and 62%; c/ limited knowledge 31% and 54%; d/lack of workforce 13% and 35%, and e/ laziness 11% and 22%.

Lack of funds, too many children, and poor business knowledge thus accounted for a high ratio among the reason cited for persistent poverty.

- In Tu Ly commune

In sharp contrast to the previous communes of the plain, social stratification in Tu Ly was still at a relatively low level, as shown in the following table:

Table 27: **Average monthly per capita income and ratios of various categories of households in 1994**

	Well-off households	Upper middle households	Middle households	Lower Middle households	Poor households	
					Total	Very poor
Income (VND)	-	145.000	95.000	57.000	40.500	Under 25.000
Ratio (%)	-	17.3	27.3	25.3	30.1	6.7

There are thus no well-off households in Tu Ly commune, and the ratios of poor households were very high. The main reasons for poverty were lack of funds, under-employment, and poor experience in business skill.

From the above general and specific analysis, it is revealed that immediate measures should focus on removing the causes leading to poverty so that by the end of this century, Vietnam may be enabled to attain the objective of eradicating the category of hungry households, and reducing the present number of poor households by about 50%, as envisaged in the 1996-2000 socio-economic development plan.

Conclusion

From our overall assessment of the situation in the whole country, combined with analysis of the case studies conducted in the selected localities focusing on rural development under the impact of renovation in Vietnam during last over 10 years, some summary conclusions can be drawn and recommendations made as follows:

1. The importance of initiative and innovation in the rural economy

During the revolution, and the wars of resistance for national liberation, and national defense, the contributions of agriculture, peasants, and support from the countryside were highly appreciated. But, when the country entered the stage of peace-time economic construction, many policy makers and scholars were inclined to be critical of rural stagnation, agricultural backwardness, and the conservatism attributed to small-production peasants. These factors were seen as obstacles on the road to socialism which required the transformation of agriculture and rural society according to the ideals of promoting large-scale socialist production and building a new rurality.

But, as realities have shown, it was from the countryside, and from the peasants who had inherited and maintained the precious experience of the traditional water-ricer agriculture, that the appropriate response came. It was the adaptive skills and creative abilities arising from their village culture (mainly its family values, mutual self-help spirit, and a realistic mind-set), along with a desire to enhance their daily lives, searching for and experimenting with new models of production (surreptitiously, at times) that proved to be more efficient than the model of centralized, bureaucratic cooperative and its forced egalitarian distribution. Thanks to the efforts of ordinary people, the policy makers were provided with a practical foundation and a model on which to undertake such institutional reforms as were "*consistent with the people's aspirations*"[1]. Agriculture and rural communities thus led the "*breakthrough*"[2] of the renovation course, helping to overcome the nation's serious socio-economic crisis, and preparing the necessary premises and conditions for the whole country to switch to a new period of development, that

[1] [2] Do Muoi: *To continue with renovation and vigorous rural socio-economic development.* See: Document of Vth Party Central Committee (VIIth convocation), Hanoi, 1993, pp. 4-5.

of accelerating industrialization and modernization through a market economy.

2. Balancing rural/agricultural with urban industrial development

While preparations are being made to switch to a new development period, some policy advisors now contend that agriculture and rurality have accomplished their historic mission. From now to year 2000, and on to 2020, to attain rapid economic growth (about 7-8% per year), it is often argued that efforts should be focused on developing industry and urbanity, and, above all concentrated in a few key areas in order to shorten the time-span involved in narrowing the gap in levels of development between Vietnam and the neighbouring NICs and other industrialized nations.

Holding a different view, we think that the Vietnamese economy, in the on-going process of reform, can only "*walk fast and confidently*" by using both legs, that is to maintain a balance in accelerating industrial and urban development, while at the same time promoting agricultural and rural development. Although the ratio of agricultural output to GDP and the proportion of the rural to total workforce will gradually decline, agriculture, rurality, and peasant households will still be called upon to play a crucial and innovative role in the development of the national economy.

A foreign economist has calculated that, in the U.S. today, only 3% of the total labour force is directly engaged in agriculture, yielding about 2% of the total value of GDP. However, there also exists an intricate network, from production to input-output services and supplies for agriculture, which absorbs nearly 21% of the total workforce, and account for about 18% of the value of GDP[3]. Moreover, the countryside, with its healthy natural environment, is becoming increasingly attractive to many people who have experienced the pollution and high social and private costs of living in the world's giant cities. In France, for instance, during recent years, statistical data have shown that in Paris alone, every year about 100,000-150,000 people forsake their urban life to settle in the countryside. Therefore, although in the future most of the countries in the world may seek to reach a high level of industrial/urban development, similar to the U.S. or France today, "*the death of rural civilization*" will by no means occur, contrary to what *La Grande Encyclopedie Francaise* predicts.

This is particularly the case from Vietnam where 80% of its population is still living in the countryside, 75% of the nation's labour force is in agriculture and agro-

[3] Assessment by Robert Burton, Kansas University (USA). After Chu Huu Quy, *Op.cit.*, p. 55.

forest-fishery products contribute nearly 50% of total export value. Given the requirement for national food security and the expansion of domestic markets for manufactured goods, and in view of the continuing growth of population to an expected 80 million by 2000 (and 135-140 million by the mid-21st century), a proper appreciation is needed of the role of agricultural/rural development in the process of industrialization and modernization. In Vietnam, two-thirds of poor families are found in the countryside, with underemployment in rural areas equivalent to 30% of the labour force. What happens in the rural sector will constitute an extremely important factor in ensuring Vietnam's rapid, efficient, equitable, and sustainable development. This must be analyzed and understood from a systems analysis approach, embracing all economic, social, cultural and environmental aspects.

3. Population growth and family planning

To attain Vietnam's development objectives, it is essential to reduce population growth to a rational and sustainable rate. If the NIR in the country and in the rural areas continue at 2% and 2.4% per year, we shall be faced in the not-too-distant future with enormous difficulties in ensuring food security, in generating sufficient jobs, in resolving increasing social and cultural problems, and in protecting the natural

environment and quality of life. With such a high NIR, Vietnam cannot hope to bridge the international gap in levels of socio-economic development, and may even lag further behind other countries in the region. If we do not curb excessive population growth and resource exploitation, and reduce other detrimental impacts on the environment, Vietnam may be unable to raise the quality of life for the present generation, and will create insurmountable problems for future generations.

The reasons for Vietnam's high NIR are diverse and complex and some of the main causes have been described above. It is clear that the population and family planning program cannot be separated from other programs of social, economic, and cultural development. Furthermore, we should not let these programs contradict or nullify each other, as they have tended to do in the past. A decisive solution to the reduction of NIR will require the creation of a willingness in every family to implement the Population-Family Planning Program. This will require an intensive campaign of education and persuasion to elevate people's knowledge and motivation, and to organize various social-economic-cultural programs linked with the objective of birth control. This process should involve all the mass organizations in society to

bring family planning information and services safely and conveniently to every town, village, and hamlet.

China's recent experience has shown that more coercive methods can lead to unexpected and negative consequences. While the compulsory policy of "*one child to each couple*" has quickly reducing NIR in this most- populated country, the mentality of "*preferring male to female*" still predominates in a segment of the population, and this has entailed a counteraction, involving the abortion, neglect, and infanticide of female newborns in some rural areas. According to one forecast, by the mid-21st century, the number of males of marriageable age in China could exceed females by 30-50 million. What will happen then?

4. Job creation and rural development

Along with a reduction of NIR, solutions must be found to the problem of underemployment, which exists for a high proportion of the rural population. There is also a need to find jobs for the annual increase in the workforce, which is in the hundreds of thousands. This constitutes most urgent problems in implementing Vietnam's socio-economic development strategy towards the year 2000.

It is impossible to attain fast, efficient, and sustainable economic growth when a considerable segment of the population of working age is sunk in

unemployment and severe underemployment, living from hand-to-mouth on odd jobs, and in increasing misery materially, socially, and spiritually. To resolve this problem, it is essential to continue to liberalize labour markets, and to bring into full play the potential energies and talents of all economic sectors, particularly the 12 million rural households. This viewpoint should be institutionalized into a series of wide-ranging policies and measures, such as:

a. Provide guidance and support to enable diversification of agricultural production, and rehabilitate the traditional craft villages, expand various lines of small-and handicraft-industries, and combine traditional technology with appropriate labour-intensive and new skill-intensive technologies.

b. Expand and build up the technical and social infrastructure in rural areas (schools, infirmaries, roads, electric transmission lines, etc.), which in itself will absorb much labour, and will create favourable conditions for economic, social, and cultural development in the countryside.

c. Continue to implement various programs and projects for re-greening millions of hectares of bare hills, clearing new cultivable land for agricultural production, and promoting the breeding of aquatic products.

d. Expand the national fund in support of job creation from various sources, of which the state investment is just an "*initial thrust*", without returning to the practice of widespread susbsidization.

e. Create training centres to help rural young people acquire the skills and other qualities needed to find employment in labour markets.

f. Encourage mass organizations, non-governmental agencies, and professional associations to generate and promote employment and other income opportunities for their members.

Measures for job creation should aim at promoting development of agriculture, industry, and services in the direction of industrialization, increasing rural incomes and improving living conditions, while limiting the city-oriented migration, thus seeking to avoid excessive urbanization and formation of "*metropolitan development poles*". This is a trend that many other countries are now trying to discourage through a policy of decentralization.

5. Restructuring the rural economy

Another efficient means to resolve unemployment and augment incomes of rural people is to facilitate further systematic restructuring of agricultural production and the rural economy. In the past 10 years, under the impact of socio-economic renovation, a

"*chain reaction*" in the process of rural economic restructuring has occurred, at least in the more efficient economic units. This work as follows: institutional reform → stimulation of the peasants' dynamic →promotion of production and assurance of food safety → diversification of crop cultivation and livestock breeding + expansion of various lines of small and handicraft-industries + trade + services → the emergence of several new forms of production and business organization. In turn, the diversified development of rural professions and forms of production and business organization (households, occupational associations, stock companies, limited liability companies, private companies, and other cooperative forms) have dramatically reinforced the efficient restructuring of the rural economy. In the near future, along with the various links of this "*chain reaction*", it will be necessary to step up the agro-forest-aquatic product professing industries, adjacent or near to the production areas, to renovate technology step-by-step, to pay attention to expanding and upgrading the rural communication networks, and to find new market outlets for these new products both within and outside the country.

To resolve the employment problem over the longer term, a continuing process of development and

transformation in the rural economy will evidently be needed. The experience of the *Newly Industrialized Countries* has shown that it can take several decades to switch from exporting mainly raw agro-forest-aquatic products to exporting mainly manufactured and processed items. For instance, the ratio of processed commodities of South Korea rose from 14% of total value of exports in 1960 to 93% in 1980, and that of Taiwan from 10% to 92%, while Malaysia's share of processed exports rose from 6% in 1960 to 61% in 1990[4].

6. Sustainable development and quality of life

Along with accelerating industrialization and modernization in the new development period, it is evident that careful utilization and management of natural resources has become more critical than ever before. World history has shown that, accompanying 300 years of dramatic technological achievements, industrial civilization and the rapid increase of output and consumption have exhausted many nation's and region's natural resources, and have pumped more pollution into the environment than the previous 10,000 years of agricultural civilization. The present

[4] From Nguyễn Thị Hiền: " *Những yêu cầu đặt ra cho việc tiếp tục chuyển dịch cơ cấu kinh tế nông thôn*" (Requirements for the continuation of restructuring of the rural economy), Review *Information and Theory*. No.2, 1996, p. 29.

environmental crisis is, in essence, a crisis of development patterns. We must change the style of development, and devise and implement a more careful utilization of natural resources to promote a pattern of sustainable development. This was defined by the Brundtland Commission (1987) as "*development to ensure that needs of the present generation are met without compromising the ability of future generations to meet their own needs*".[5]

The comprehensive goal of sustainable development is thus to successfully establish a symbiotic, harmonious, and secure relationship between man and nature, that can elevate the quality of life of both present and future generations within the carrying capacity of a finite ecological environment. In order to establish this ideal relationship between man and nature, the relations between man and man must also be well settled. This requires that we apply a basic systems analysis approach to all economic, social, cultural and environmental aspects, in building a development pattern in which economic growth proceeds hand-in-hand with equity and social progress, representing the highest intellectual, moral, and human aspirations within a country, as well as the world over. As long as minority of rich people and rich countries see the intensive utilization of natural

[5] Brundtland Report: *Our common future* (1987).

resource to be the best way for them to reap maximum profits, to satisfy their ever more affluent life-styles, while a majority of poor people, and poor countries are obliged to over-exploit and sell off their marketable resources at minimum price to maintain bare subsistence, then the goal of sustainable development will remain but a dream. We think that this viewpoint must also be applied to the search for appropriate solutions to problems of pollution and environmental degradation, particularly the erosion of forest land and the deterioration of land and water in the rural areas of Vietnam.

We should also learn from the success and failures of other countries, and apply the lessons of sustainable ecological agriculture to be found in this experience. And, in particular, we should broaden and modernize our own experience of the VAC or VACR ecosystem[6], which has many features to recommend it, including:

a. It exploits renewable resources and recycles livestock and crop residues for a new production cycle.

b. It prevents the degradation of non-renewable resources from soil erosion and soil depletion caused by continuous unsupported cropping.

[6] VAC or VACR are the acronyms for four Vietnamese words: V for *Vườn* or garden, A for *ao* or fish pond, and C for *chuồng* or livestock pen, and R for *rừng* or forest.

c. It produces a higher quantity, quality and diversity of agricultural products on a sustainable basis for a given unit of land than other methods of production. (Usually VAC output per square metre produces three to five times more value of output than a square metre of rice, and potentially can be even more productive than this).

7. Rapid economic growth and social progress

As with many countries in the region, Vietnam will continue to pursue the objective of achieving rapid economic growth, which is seen as necessarily linked to its aspirations to promote equity and social progress. Many advisors, however, see these objectives as mutually contradictory, or as simply impossible to meet simultaneously. All developing countries have a redundancy of labour and a shortage of capital. Therefore, to stimulate investment, it is often argued that high profitability must be offered to capital, while labour should be subjected to low wages, that is to say a large rich-poor polarization should be tolerated. Some advisors even conclude that widening social inequity is not only an outcome but also a necessary condition or "*cause*" of rapid economic growth.

Other experts take a more moderate view. Economic growth should be given priority first, to be followed by social equity, and let the poor wait! Under this

perception, in countries starting to industrialize, we can only hope to realize social equity three or four decades later. In the first half of the transition period, the majority of people (especially the majority of the rural work force) are destined to experience dire poverty; but then, during the second phase of development, their living conditions may gradually catch up. However, there exist theories and practical experiences which show that some developing countries have managed to attain rapid economic growth at the same time that they are improving social equity.

An examination of Vietnam's experience during the process of renovation, and which reference to some other-country theories and patterns of agricultural and rural development, would seem to shown that:

a. It is possible and necessary to promote economic growth linked with social equity - that is to encourage people to get rich in a legal manner and, at the same time, to make the best efforts to eradicate hunger and alleviate poverty at each step during the entire process of industrialization and modernization. We cannot afford to wait until a high level of economic development has been reach to begin bringing about social equity, nor should we "*sacrifice*" social equity for the sake of merely promoting economic growth.

b. In the process of shifting to a market economy with a socialist orientation, the pursuit of social equity should not only be based on regulation and redistribution of income among various strata of people. What is more important is to continue with institutional reforms to ensure that all citizens, in both urban and rural areas, and particularly those who are disadvantaged or deprived, are able to again access to some means of production, to benefit from basic education, health care, vocational guidance and training, and to receive assistance in difficult times so that they can fend to themselves and their families. In so doing, we can assist "*the poor people to attain self-sufficiency, the self-sufficient people to become well-off, and the well-off people to get better-off; everyone will know how to read and to write, and will practice unity and patriotism*" as stated by Ho Chi Minh[7]. We should not, however, turn back to the pre-renovation infantile error of exercising social equity by means of egalitarianism or equal distribution of wealth, regardless of the quality, quantity and effectiveness of production, or from an arbitrary estimate of a person's "*contribution to the community*".

c. For each period and plan of development, a rational "dose" of balance (as in Hegel's perception) should be struck between promotion of economic

[7] Ho Chi Minh: *Complete Works.* Hanoi, Vol. 4, p. 287.

growth and the realization of social progress and equity. We should not let these two spheres get in the way by countering or negating each other, but should find ways by which they can support and complement each other. Therefore, in the rural areas, the programs of hunger eradication and poverty alleviation should be interwoven with various other economic, social, cultural development and environment protection programs. These include programs for population and family planning, job creation, economic restructuring, and efforts to achieve a more sustainable utilization and management of natural resources, as outlined above.

d. In regard to policies directly related to hunger eradication and poverty alleviation in rural areas, attention should be focused on overcoming the causes of hunger and poverty, of which the two most important are shortage of capital, and a lack of knowledge and skills in production and business undertakings. To resolve these deficits successfully, we should bring into full play the appropriate roles of the state, the communities, and the citizens themselves. The state should focus on the renovation of mechanisms and policies, and on organizing their implementation. The communities should bring into play the tradition of "*mutual care and assistance*" and "*let the leaf that is still whole shelter the leaf that is torn*" which has deep

roots in rural areas. The citizens should each energize their efforts with a view to better utilizing their labour potential, other resources, and their entrepreneurial talents in undertaking new production and business pursuits.

In short, the above-mentioned issues of agricultural and rural development in the process of industrialization and modernization are centered on bringing into full play the nation's human resource potential, involving everybody (men and women, individuals as well as communities) simultaneously as the powerful motive force and the highest goal in striving for rapid, efficient, and sustainable development in all its economic, social, cultural, and environmental dimensions.

8. Some remaining issues in agricultural and rural development

There are still many other important issues relating to agricultural and rural development that require special attention, such as:

- Forms of production - business organization;
- Building of rural infrastructure;
- Cultural and educational development;
- Transfer of scientific- technological achievements, and supply of techniques and materials;
- Improvement of the credit system;

- Territorial (regional) planning, and development of a network of small and middle-scale urban centers;
- Rural society management institutional development, etc.

The shortage of time, and the need to focus our initial efforts on a manageable agenda, have meant that these issues have had to be set aside for future research.

9. Additional comments

The issues of rural development that we have been able to address above also require more time and effort to produce and adequate study and set of conclusions. We should intensify the collaboration between policy makers and scholars - in both the social and the natural sciences and technology - to strive for a comprehensive, inter-disciplinary approach towards analyzing and solving the many problems of agricultural and rural development. In particular, we should vigorously promote methods of joint study with the peasants (the participatory action research approach). Policy makers and scholars should not think of themselves solely as the peasants' teachers, to merely preach to them on the theories and models constructed for their benefit. For the peasants, it is generally true that "*one time of seeing is better than a hundred times of hearing*" (or to use a Western saying: "*a picture is better than thousand words*"). We should thus translate the results of our

studies into demonstration cases (or pilot projects), relying on the experience and local success of the peasants themselves to inform and convince them and their neighbours of new ways of doing things. The propaganda of VAC (garden-pond-livestock) or VACR (garden-pond-livestock and forest in mountainous areas) ecosystem across the country is a case in point that has provided a precious lesson in the potential returns to such learning-by-doing[8].

Hanoi, May 1996

[8] See the Annex.

Annex

THE VAC ECOSYSTEM: A MODEL FOR RURAL SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL PROTECTION IN VIETNAM

Pham Xuan Nam

This paper describes the VAC ecosystem, one of today's most popular models of agricultural production for self-reliant households in rural Vietnam. Its economic, social, cultural, and environmental benefits are presented, and the role of the State, community, and rural households in widening its adoption is then discussed.

I. VAC EXPLAINED

VAC are the acronyms for three Vietnamese words: V for *vườn* or garden, A for *ao* or fish pond, and C for *chuồng* or livestock pen. The VAC ecosystem model for agricultural production was conceptualized by Professor Tu Giay, Director of the National Institution of Nutrition, Ministry of Health during his search for a solution to the problem of malnutrition prevalent in rural areas in the early 1980s. At that time, he

recognized the potential of an interconnected production system of gardens, fish ponds, and livestock pens.

Since then Vietnamese scientists have begun a rigorous examination of this production system in light of the heightened international awareness of the ecology of the biophysical environment and the place of humans within it. It should, however, be emphasized that VAC is not a projects formulated on a theoretical basis by scientists. It is the result of centuries of inheriting and synthesizing the knowledge, traditions, and experience of Vietnam's farmers, who have adapted to the environmental conditions of the monsoon tropics.

Vietnam's farmers have long been involved in the reclamation and settlement of lowland coastal areas and estuaries. They are accustomed, therefore, to digging ponds and moving earth to build the foundation for houses and gardens. In the Red River Delta, for example, farmers have traditional placed their house in the middle of their plot, with a pond in the front and a garden at the rear. This has become part of the folklore in the saying "*garden behind - pond in front.*"

By comparison the Mekong River Delta is characterized by braided rivers and canals, where houses are built along the waterways for access. The houses are then surrounded on three sides by gullies,

which are dug to build up the foundations. The balance of the land is used for cultivation.

By the early 1970s, when cooperatives in North Vietnam were moving animal husbandry to key production sites, and cattle and poultry pens were moved away from houses for human health and sanitation reasons, many families constructed animal pens near their ponds. By observing these developments, scientists recognized that the *Garden, Pond*, and *Pen* are not separate entities, but are interrelated, forming their own ecosystem. The interaction between components of the VAC ecosystem is described as follows:

Gardens

Gardens usually have a multi-layered structure making full use of the solar energy in the tropics. At the lowest level there are ground species such as sweet potato, peanut and squash, and vegetables such as cabbage, tomato, and chili, as well as several species of medicinal herbs. At the middle level there are medium-sized fruit plants such as banana, papaya, orange, kumquat, jujube, and soursop. At the highest level there are taller fruit and woody perennial trees such as mango, jack-fruit, and coconut. Under the canopy of the tall perennial trees, vines can be planted for fruits, and roots such as Chinese maniac, and monordica, or other

species of introgen-fixing leguminous plants which help enrich the soil. In larger gardens bamboo, reed, and rattan can be grown for protective garden fencing, and as a source of material for construction and handicrafts. This multi-layered garden helps to enrich the soil by covering it with fallen leaves and other decomposed plant materials.

Home gardens provide the owners with fruits and vegetables that vary with the season, as well as fuel wood and medicinal herbs for the treatment of common human diseases. Other products can be used for feeding cattle, pigs, chicken, and fish, while by-products can be mixed animal wastes to produce organic manure.

Ponds

Ponds in the North, or gullies in the South, are deeply dug to retain drainage in the rainy season which is then used to irrigate the garden in the dry season. Various species of fish are cultured in the pond to make a full use of nutrients at different trophic levels. Water hyacinth is grown on the surface to keep pond water clean and its roots are collected for pig food. Water jam can be planted on the margin of pond, while bottle gourds, squash and loafs are usually planted on the margin and allowed to climb towards the pond on bamboo frames, to make full use of all the space that is available.

Once every year or two the ponds is cleaned by empty the water and removing the mud layer formed by residues and soil erosion. This mud is then applied to the based of fruit trees to improve fertility.

Livestock pens

Vietnamese farmers raise a wide range of animals and poultry. Water buffaloes have been the traditional source of animal power used for pulling by Vietnamese farmers, but these have now been supplemented by milk buffalo and oxen. Pigs are an important source of cash for basic needs, while poultry (including chicken ducks, and geese) provide meat and eggs as well as cash.

In areas where the home gardens and extensive and located near the forest, farmer feed goats and deer for meat, milk, and young deer horn which is traditionally used to strengthen old people's health. Keeping bees for honey production and to increase pollination is also common. Animal husbandry supplies a considerable amount of composted organic manure for the fields and gardens, as well as for fish culture in the ponds. It is produced by the decomposition of animal manure in piles that are covered with pond mud. Vietnamese farmers find that fish fed by animal waste grow more rapidly, and fruits and vegetables have a better quality and appearance when grow this way, compared to those grown with the use of chemical fertilizers.

The interactions in the components of the VAC ecosystem involve the rotation and recycling of materials and energy flows between *Garden*, *Pond* and *Pen* with aid of conscious human behavior. In short, the VAC system has the following characteristics:

* It takes advantage of a three-sided ecological space in the humid and rich solar tropical environment.

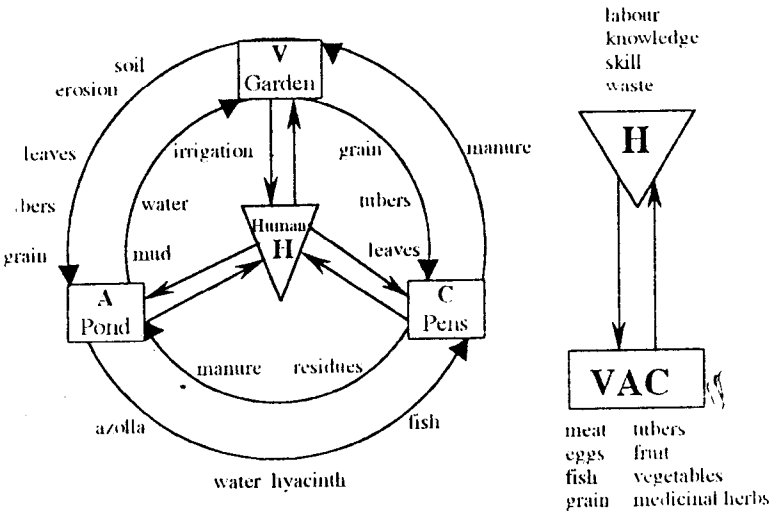
* It exploits renewable resources and recycles livestock and crop residues for a new production cycle.

* It prevents the degradation of non-renewable resources through soil erosion and soil degradation caused by continuous unsupported cropping.

* It produces a greater quantity, quality, and diversity of agricultural products on a sustainable basis for a given unit of land than other methods of agricultural production.

The interactions between *Garden*, *Pond* and *Pen*, aided by conscious human behavior, is illustrated in the following diagram.

The VAC Ecosystem



II. SPECIFIC EXAMPLES OF FAMILY VAC OPERATIONS

Our field survey in several provinces reveals that there is a diverse application of the VAC ecosystem model in terms of farm size, crop, livestock production, and material and energy flow recycling between them. The rich local experience and creativity of Vietnamese farmers is illustrated in the following cases.

Nguyen Duc Phuong

The Nguyen Duc Phuong (Quan Trieu – Thai Nguyen) family VAC was started on 11,500m^2 of

degraded hill soil in 1985. Since then, they have constructed two tile-roofed houses on the southern hill slope, each with a brick court yard facing the road. In front of these courts, there are several rows of good species of oranges, pomelo, sapollia and soursop, which provide fruit for family consumption and for engrafting small plants for sale.

There is a fish pond of about 500m^2, to the right of the house, and next to the fish pond there are two cavity pigpens, one for sow feeding and the other for porker feeding. A large part of land area at the back of the house has been reclaimed to grow apricots that produce about two tons of fruit every year, which are wholesaled to a foreign trade company. The garden is bordered on the north and east by a tall bamboo windbreak to keep cold winter winds away, and to provide a habitat for wild birds which help reduce pests and harmful insects, as well as create a more cheerful local environment.

In recent years, a pump and a plastic pipe network were installed to distribute water from the fish pond to irrigate the garden. Frog culture has also been added on a lower plot of land which is bounded by brick walls. Theirs food supply is enhanced by nighttime fluorescent lighting to attract insects which the frogs consume.

In 1991 the Phuong family of two adults and a daughter (sixteen years old) earned 30 million from sale of apricots, pigs, and young plants harvested from his VAC.

Hoang Van Lu

The Hoang Van Lu family VAC in Tran Quy – Gia Lam, on the outskirts of Hanoi, was established three years ago on a area of 2 *sào* (720 m^2) to provide housing and farm products in this densely populated narrow flatland. His family has four children and his house, kitchen, and brick courtyard occupy half the area. The balance of 360m^2, includes a 120m^2 fish pond where three different species are cultured at different levels within the pond.

A pen for two pig was installed next to the pond to facilitate the movement of wastes from pen to pond. Fifty-four lemon trees are grown on 40m^2 along the banks of the pond, while 60m^2 is allocated for a garden at the back of his house, where jackfruit trees and sappolia are grown for fruit and shade.

Another 120m^2 garden in front of the house has ten kumquats for engrafting small plants for sale, while a plot of 20m^2 next to the kitchen is used as a food supply plot where oleasters, Chinese cabbages, and mint are grown to meet his family's daily needs.

In 1991 the Lu family earned 6 million Dong from the products harvested from the VAC. Additionally his

family is rice farming on 5 *sào* (1,800m^2) on a contract basis which provided 1.5 tons of paddy from two annual crops, that was used for family subsistence and livestock feed.

Phan Ngoc Xung

The Phan Ngoc Xung family VAC is located in Tu Loc, Hai Hung. It was established four years ago on 2.5 *sào* (900m^2), which previously had been used for Chinese manioc and various fruit trees. This garden has been re-planned on the basis of the VAC model, emphasizing aquaculture of specialized species such as eel, frog, and tortoise. A 150m^2 pool, with a small sand island rising in the middle, is allocated for tortoise breeding. The young tortoise are then taken to a separate tank for careful feeding until they have grown sufficiently to be placed in the larger 360m^2 tank. Anabas fish and aquatic snails are also cultured as food sources for the tortoise.

Aquatic hyacinth is cultured on the surface of fond, and banana, lemon, and orange trees are planted on the bank around the pond, creating a cool, quiet environment suitable for raising tortoise. At the front of the pond these is a 300 m2 basin for raising frogs and eels. Several chicken and pig pens are arranged around the pond. The pig manure is used as fertilizer for the field and garden, while the chicken manure is used to

feed worms in a 30 m2 area where one kilogram of worm is harvested daily to feed the tortoises.

In 1991 the Xung family, with the help of two labourers and three subordinates, had sales of 100 million *đồng* (VND), half of which was earned from the tortoises. The family is also contract farming on a rice field of 7 *sào* (2520m^2) and, in addition to satisfying their own needs, had annual sales of 5 million to 6 million VND from two rice crops.

Nam Vinh

The Nam Vinh family VAC is located in Can Tho, Hau Giang. It is a reclaimed garden of 6,000m^2, previously destroyed by the American war. It was replanted with arena, coconut, orange, kumquat, milktree, cacao, pepper, and castor-oil plant. As there is a ready market for cacao, it has become the dominant crop, although the garden's multi-layered structure has remained.

At the upper level arena trees create shade, while cacao at the mid level is mixed with the cultivation of pepper. The garden is bordered by gullies and the furrows drain inward to keep the soil humid. Shrimp are cultured in the gullies and on the surrounding grass band which prevents soil erosion, and it also used to feed goats. A flock of 100 hens range freely seeking insect in the garden. There are about 30 bee hives under

the canopy provided by the trees. In 1991, the Vinh family earned 15 million VND from cacao and 10 million VND from other products.

III. THE ADVANTAGES OF THE VAC ECOSYSTEM MODEL

Since 1981 the VAC ecosystem experience has developed experimentally in many different topographic zones, in the highland, midlands, flatland, and coastal areas. It is now a proven model for an efficient, sustainable, multi-faceted household economy.

Economic aspects

Data gathered in several provinces by the Vietnam Gardening Association shows that net income from VAC farm is three to five times greater per unit area than for rice cultivate. In some cases, with better practices, the income form VAC is eight to ten times higher, and in the extreme, it can be twenty to thirty times higher.[1]

Our own survey data indicated that the output per square meter of VAC cultivated by Nguyen Duc Phuong produces five times greater value than one square metre of rice cultivation. In the case of Hoang Van Lu, the value of output from one square meter of VAC is twenty times higher. In the exceptional cases of Phan Ngoc Xung and Nam Vinh, the difference is even greater.

[1] Report of the Central Steering Committee of the VACVINA, the National Conference on the Garden Economy, p. 12, May 1990.

The income gained by VAC households over the years has allowed them to construct houses with tile roofs and to purchase expensive consumer durable, such as television, radios, cassettes, motorbikes, and refrigerators.

Health aspects

The VAC model contributes to the diversification of food and improved nutritional balance in the daily diet of farm households. By reducing the proportion of rice in the diet (which in 1989 contributed 83% of the calories and 67% of protein) and increasing the proportion of vegetables, fruit, fish, eggs, and meat, the consumption of a variety of fats, protein, and complex vitamins and minerals has increased.

Data gathered by the National Institute of Nutrition from 350 households on the outskirts of Hanoi and in Ha Nam Ninh province in 1989, indicates that the per-capita daily food consumption of the VAC households is much higher than that of comparable groups. More specifically, the measured increase were: vegetables, 45%; fruit, 20%; eggs, 39%; fish, 39%; and meat, 67%[2]. The daily diet is thus much improved, resulting in a decrease in malnutrition among children and the elderly, and an increase in the weight of pregnant women. As

[2] Central Board of Agriculture. *Today's Rural Social Economy in Vietnam*. Vol. 2, Hanoi, 1991, p. 55.

rice is the traditional diet of most farmers in Vietnam, the benefits of the VAC will certainly increase, if extension of the model is well-integrated with nutritional education in rural areas.

Social aspects

The VAC model increases employment opportunities in rural areas. Furthermore, a VAC production system provides a desiable work environment for all members of the family, and in particular enables women to work and to look after their children. The VAC also provides a rich and attractive physical for the household.

The VAC farm is thus a place for the elderly to enjoy, as well as a place where pupils can put their school knowledge to practical use by developing hybrid crops, by grafting plants, and by animal husbandry. In some provinces, the VAC model helps local people to maintain and develop skilled handicrafts by providing raw materials such as rattan, bamboo, timber, and leaf products.

When employment and incomes are stable and living standards are improved, the social evils of rural life caused by a lifestyle of edleness should decrease. Better lives should also reduce crimes and acts of violence.

In the mountainous provinces of Vietnam, encouraging outcomes have been obtained through

settlement and fixed cultivation based on the VAC model. In Lam Dong province, for example, 10,000 out of 17,000 minority ethnic households have given up shifting cultivation and their nomandic life style to settle and farm their hill and forest gardens. It is estimated that throughout Vietnam 126,000 out of a total of 482 previously nomandic families have given up shifting cultivation and stabilized their lives based on the VAC farming model.[3]

Environmental aspects

The VAC production model is based and the recycling of energy and materials. Through photosynthesis solar energy is recycled into new forms of energy contained in plants, which are then be used as food for human and animal consumption, or as raw materials for industrial processing and handicrafts. Waste products are either decomposed and absorbed by plants, relocated where they can find their way into the food chain, or reused directly by farmers in a new cycle of production that transforms them into more useful and diverse products with higher values. These two cycles, the solar energy cycle and the reuse of wastes, are thus integrated to facilitate economic growth and environmental sustainability.

[3] Report by the Ministry of Forestry, the National Conference on the Garden Economy, May 1990, pp. 3-4.

Cultural aspects

The VAC model contributes to the genuine health and happiness of humans. A diversity of garden produce, full livestock pens, and plentiful fish in the ponds, create a love for the beauty of nature and natural systems.

After a visits to the Nam Vinh family VAC, a Vietnamese writer observed: "In a season of flowering, yellow flowers weaving from the twig down to the base of cacao, sent out their fragrance quietly. The sound of honey bees flapping, and from somewhere a red-whispered bulbul is singing".[4]

Foreigners have also visited his VAC, among them Jean and Marie Drouhart of the Lyon Biological Institute in France, who wrote in the family's honour book: "Today, the 14th of July, the French National Day, we are present at the time of flaring up of flower, fruits and birds singing. Nothing is happier than such a cheerful day."

IV. THE ROLE OF STATE, COMMUNITY AND FARM HOUSEHOLD IN WIDENING THE ADOPTION OF THE VAC MODEL

As with other social sectors, State policy towards the development of VAC requires an appropriate socio-economic design, of which land policy is crucial.

[4] The *Literature* Journal. No. 29, July 1992.

During the post-war decade (1975-1985) the State's emphasis was on developing large scale agricultural production by collectivizing the labour force, land, and other mean of production. Farmers did not pay attention to the VAC method of production and conditions were not conducive to it, in spite of the fact that % of the land was assigned by the cooperatives for household use.

The VAC movement developed with the introduction of the renovation policy in agriculture management, which meant that the farm household was accepted as a autonomous economic unit, with land and surface water use rights assigned by the State on a long term basis.

By 1991 in Thanh Hoa province, for example, 17,000 of 64,000 farm households are in the process of converting conventional gardens to the VAC model, while in Trau Quy, Gia Lam some 1,200 of 1,300 households have built up the VAC model.[5]

In mountainous and midland areas, hill garden and forest gardens have been developed on the VACR model (R is the acronym for *rừng* or forest), facilitated by the State's policy on the assignment of forest land to farm households. This system of upland agroforestry takes advantage of the soil's potential for agricultural use while limiting deforestation.

[5] The *Gardener* Magazine. No.2, p. 16, 1992.

The scientific community has made the following recommendations based on practical experience.

Flatland areas

In flatland areas the State should allow 15-20% of cultivated land to e assigned to economic gardens. On this basis, if each farm family had a VAC of 2,000 m2, and there are five million families, this would require one million hectares (ha), or 20% of the five million ha of flatland suitable for cultivation in Vietnam. These economic gardens would grow vegetables and fruits and produce meat, fish, eggs and so forth for domestic consumption and for sale. Their high efficiency would improve the ling standards of the farmers and make it possible for them to provide more inputs for the production of field crops, which should increase the production of rice and other cereals. This close interrelation of the VAC economy and fields economy should thus significantly increase total food production.

Midland and upland areas

In midland and upland areas the State should invest in the construction of infrastructure, such as roads, irrigation, schools, and health center, financed by low interest credit. Support should also be provided in the form of technical guidance, appropriate seeds, initial livestock, and food processing equipment.

Price support policies should insure a minimum return on agro-forest-fishery products, while the land allocation process should encourage farmers to accelerate the introduction of the hill garden and forest garden models of VACR, which should encourage resettlement of other farmers from densely populated areas to the New Economic Zones.[6]

If this policy is successfully, it will result in a better distribution of population, as well as the re-greening of vast areas of waste land and bare hillsides. It should also help to return rural-urban migration and its negative consequences, which are so apparent in other developing countries.

In addition to appropriate State policies, VAC requires other forms of institutional support at the community level. To this end, the Vietnam Gardening Association (VACVINA) plays a critical role. Established in 1986, VACVINA has built up a network in over 38 of Vietnam's 54 provinces and cities, including 1,231 sub-associations and nearly 70,000 members by mid-1992[7]. VACVINA has focused on promoting

[6] At the time of writing of this paper the Government assigned 3,000 to 5,000 sq.m to each household in the new Economic Zones for VACR model plots, along with 100 billion VND of low interest loan capital, at 0.6% to 1.2% per year, to be allocated from the 1992 national budget to support the development of the household economy, including the VAC system.

[7] The *Gardener* Magazine. No. 5, p. 2, 1992.

awareness through the mass media, providing training courses and technical guidelines for different ecosystems.

For local farmers, the demonstration or pilot VAC projects are most important. The Vietnamese expression, "seeing once is better than hearing a hundred times", is particularly apt in this situation. These demonstrations provide an opportunity for farmers to exchange experience and to learn from each other. VACVINA has emphasized nutrition plots for poor farm households and also has proposed VAC experiments is schools, nurseries, old age homes, and infirmaries in rural areas.

VACVINA also acts as a focus for liaison with international agencies seeking to provide external assistance for VAC projects. In 1991 VACVINA assisted by UNICEF, began developing a High Food Safety program (HFS), on the basis of the VAC model in over 128 districts, including 303 villages that had 21,000 poor families with pregnant women or infants under five years old.[8]

VACVINA have also received financial assistance from World Vision, the Australian Quaker Foundation and the Swedish SIDA, to introduce the VAC system in the ethnic minority uplands of Son La, Bac Thai

[8] The VACVINA Performance Report, p. 6, 1992.

province, and for poor farm households on the outskirts of Hanoi and Hai Phong. Th government of Canada, through its Hanoi Embassy, has recently offered to finance a collective VAC System for the old and disabled in Xuan Dinh village outside Hanoi City.

State policy and local community support have a significant role in VAC success, but it is the human factor that is the prime determinant of the success of the VAC model. The separate components of *Garden-Pond-Pen* could not otherwise interact, and this interaction is only developed into an ecosystem by the farm households', conscious efforts. From this perspective, VAC can be considered as a system of human ecology.

In order to bring this human ecology into full play, it is essential to promote the farmer's creative potential, which requires experience, knowledge, and skills over a wide range of activities, including training in ecological agriculture, and sustainable development strategies, supported by study visits to demonstration plots.

Local farmers should also have access to information, education and awareness promotion, to orient and develop the VAC system on the basis of the nation's heritage and traditional and spiritual values, to criticize seriously the rampant consumer lifestyle, and to foster intergenerational respect, acknowledging that "*when the bamboo grow old, its shoots sprout*".

This is the dialectic of nature, and also the traditional oriental philosophy and cultural lifestyle. A lifestyle with a cultural attitude and a positive response towards living harmoniously with nature, balancing human aspirations for development with the ecological carrying capacity of the biosphere. This is the substance and significance of environmental protection for sustainable development for this generation and future generations.

The advantages of the VAC in terms of economy society, culture and environment is undeniable. The potential for the development of the VAC model is still great, as only 25% to 30% of farm households have so far adopted these practices. The constraints on its use include: shortages of land, financial capital, knowledge, experience, skills and the absence of a rural dynamic extending its adoption. The VAC system can assume many forms, including: the nutritional VAC, the economic VAC, and the export-oriented staple production VAC. All require further development through experimentation and learning from experience elsewhere.

We would like to share our experience with those from other countries who are interested in this model and have valuable lessons to effect which can be appropriately applied in the concrete conditions in Vietnam.

Hanoi, September 1992

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The search for sustainable development

Editor-in-chief:
NGUYEN DUC DIEU
Technical editor:
TIEN CUONG
Designer:

Corrector the press:
LE THU HUONG

Print 550 at Printing Enterprise No. 15
Permission No. 40/934/CXB of July 10, 2001.
Deposited in archives September, 2001

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