

Increasing Off-Farm Employment Opportunities in Rural Areas of Viet Nam

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I . Employment Issues in Rural Areas

1. Present Situation of Employment in Rural Areas

Around 80% of the total population of 74 million are living in rural areas and 72% or 24.8 million of the total labor force of 34.6 million have engaged in agriculture and forestry (Table 1). Past trend of the employed population in Viet Nam shows that more than 70% of the annual increment of the labor force have been absorbed by the agricultural sector. Thus, the ratios of population in rural areas and agricultural labor force to the total population and total labor force have remained rather unchanged in spite of the rapid economic growth of 8% per annum. This is the outstanding characteristic of Viet Nam when compared to the cases of other countries in the region.

During the period 1991-1995, per capita production of the agriculture sector made nominal growth compared to other sectors which have achieved remarkable increase, resulting in that per capita production of the agriculture sector being as low as 20% of the industrial sector (Table 3).

At the moment, growth of population is estimated at around 2 % per annum, however, growth of labor force is expected to be higher than population increase, reflecting the current demographic structure of the country. Therefore, employment issues, particularly in rural areas, are serious concerns for the socio-economic development of the country.

2. Current Status of Employment in Agriculture Sector

Main characteristics of the Vietnamese agriculture are the highly intensive one, with dominant small scale family farms depending on paddy growing.

Of the total agricultural land of 7.36 million hectares, more than half of 4.2 million hectares are occupied by paddy field where 2 to 3 paddy crops are grown yearly. Development of the past 5 years of 1991-95 shows that agricultural land increased in upland, mostly like coffee and rubber plantations, while paddy field remained stagnant. In spite of the substantive population and labor force in the agriculture sector (Tables 4 and 5), expansion of paddy field seems to have reached almost plateau, hence the size of farming be further decreased. Agricultural land per agricultural population at national average in 1995 stood at 0.146 hectare, with the highest figure of 0.333 hectare in Northeast South (NES) and the lowest of 0.064 hectare in Red River Delta (RRD) (Table 6). Similarly, agricultural land per labor force was 0.337 hectare with the highest of 0.708 hectare in NES and the

lowest of 0.160 hectare in RRD (Table 7). In general, farm sizes are bigger in southern provinces where plantation crops are widely grown, compared to the northern provinces where paddy is predominant.

3. Current Situation of Off-Farm Employment and Income

Information regarding the on/off farm employment situation is very limited in Viet Nam at the moment, particularly on details of the employed and unemployed or under-employed. It is generally the accepted notion that the unemployment ratio in rural areas of Viet Nam stands around 10%. According to the survey result of Viet Nam Living Standards Survey 1992-93 (VLSS), unemployment ratio of the economically active population in rural areas was 6.87% compared to that of the urban area of 9.44% (Table 8). However, these data should be treated carefully taking into account that these figures are obtained through interviews, asking the samples regarding the situation for the past one week of the interview, and there exists a seasonal nature of farming.

In connection with the above, the reasons of not working were asked. In rural area, 8.5% of the male workers responded as *no job*, and when *do not know how to find job* were included, 11.09% were jobless though wishing to work. The corresponding figure for urban area were 10.39% and 13.77% respectively (Table 9). The unemployment in Viet Nam remains fairly low if the above were directly interpreted.

In the same survey, types of employment for the last 12 months were traced for both rural and urban areas. Even in rural areas, *farm self-employment* accounted for only 55.10% and *farm self-employment and wage earner*, and *farm self-employment and non-farm self-employment* accounted for substantive shares, thus showing the high dependence on non-farm jobs in rural areas (Table 10).

Regarding income sources, the result of the above survey shows that even in rural areas those whose main income depend on *agriculture and forestry* accounted 52% and those depend mainly on *non-farm self-employment and wage earner* accounted 28% and 17% respectively (Table 11). These also show clearly high dependence on the non-farm sector in rural household. In regional dimension, highest dependence on the farming sector was seen in Central Highland (CH) as 65%, while the lowest was in Northeast South (NES) as 11%, which includes Ho Chi Minh City. National average of the households depending mainly on farming accounted 36%, whereas those on non-farm self-employment and wage earners accounted 37% and 22% respectively, showing generally a low share of wage earners (Table 12). Working hours of those employed (including self-employed) for the past 12 months were also surveyed by expenditure stratum and of rural and urban areas (Table 13). There exists no big difference on working hours per capita among different expenditure stratum but substantive difference are observed between rural and urban areas. In rural areas, working hours per capita account for 1,597.4 hours which are around three-fourths of that in urban areas. Further, it is observed that working hours are larger for female than male workers in urban areas.

Income disparity between urban and rural areas is apparent as VLSS reveals that per capita yearly income in rural areas was 929 thousand VND, around 50% of that of urban areas. Monthly wage/salary could be compared by rural/urban, gender wise and region wise (Table 14). In general, wage level is higher in southern regions compared to the north. The highest is NES which includes Ho Chi Minh City, and the lowest is North Mountain and Midland (NMM), around one-thirds of the former. Generally, wage/salary level of urban areas is 2.5 times of rural areas, and in case of RRD, rural areas account for only one-thirds of that of urban areas. Thus disparities among regions as well as between urban and rural areas and genders are quite noticeable (Table 15).

4. Migration from Rural Areas to Urban Areas

Migration from rural to urban areas are a common phenomenon observed in the process of economic development. Expansion and development of the non-farm sectors headed by the manufacturing sector bring about increased labor demand and usually absorb labor from rural areas. On the part of the rural sector, seeking the opportunities of higher wage and income, people often intend to move to urban areas. The magnitude and dimension of migration are determined by the pulling force of urban areas and pushing force of rural areas. At the moment, no comprehensive data on migration is available in Viet Nam. For reference, an UNFPA project: VIE/93/P02 "Support to Research on Population and Development" and an ESCAP study entitled "Survey of Spontaneous Migration to a Rural and Urban Area in Viet Nam" provide certain insights on this issue. It is the general perception that the leading factor of migration is of economic nature, namely higher income and job opportunities. However, results of the above studies show that economic factors are not necessarily the leading factors in Viet Nam. Other factors such as family relations, e.g., to join to household heads, and marriages and education also account for high shares in the reason of migration. As the study and survey mentioned above were limited to the registered population, a careful attention should be paid to the fact that they do not fully reflect the actual situation of migration. In the days before "Doi Moi" starts, migration in Viet Nam were mostly planned by the government to transfer population from densely populated areas to sparsely populated ones, notably to the New Economic Zones, but nowadays spontaneous migration is the mainstream. Basically, freedom of residence for individuals are guaranteed by the Constitution but as a matter of fact tight rules and regulations for obtaining residential permits exist which effectively limit the number of incoming population to big cities like Hanoi and Ho Chi Minh City. Without obtaining residential permits after clearing a number of necessary conditions, no social benefit could be applied. Present situation of infrastructure, both of social and physical nature, is not enough to accept huge inflow of population from rural areas.

Reflecting the above and others, migration from rural to urban areas in Viet Nam is not so much in a high pace as generally observed in other developing countries. This might be interpreted that, in addition to the above mentioned regulation, pulling force on the part of urban areas is not so strong due to the slow pace of industrialization.

II . Pattern of Off-Farm Employment in Rural Areas

Importance of off-farm employment in rural areas of Viet Nam are crystal-clear taking into account of the ever decreasing size of farming and also limited opportunity of expanding agricultural land.

In Red River Delta and elsewhere, there exist wide varieties of rural industries such as spinning, weaving, porcelain, metal work, wood work, lacquer ware, bamboo work, brick making and food processing with long histories. In addition to these local industries, there exist State Operated Enterprises (SOEs) in such activities as sugar refinery, paper production, tea/coffee/rubber production, many of them were established as core industries in New Economic Zones. Further, in the course of transition to the market economy, small scale commercial firms and garment factories are emerging. In case of garment, types of management are very much diversified, from family size operations to private stock companies, cooperatives and state enterprises, most of them are essentially export oriented. No comprehensive information is available for these enterprises on numbers, and their actual effect to job creation, therefore, quantitative analysis and assessment are difficult.

"Study on Non-Farm Professions and Trades in the Viet Nam's Rural Areas" undertaken by the Ministry of Agriculture and Rural Development provides general picture of the situation of rural

industries and non-farm activities in Viet Nam. The study covers 3,439 households/production units distributed in 9 provinces, 27 districts and 81 communes widely spread in different regions. The result of the study is elaborated in other report.

Based on the above and also the result of the field survey, following points will be mentioned as the general characteristics and the issues to be addressed:

- 1) The SOEs visited are generally large scale industries and in case of agro-processing contributed to job creation in rural areas directly and indirectly. Types, scales and locations of these industries are decided in line with the government policy on industrialization of the national level. However, for the establishment and introduction of these industries, upgrading of the infrastructure such as roads, electricity, water supply and communications will be the prerequisite and due attention be paid to avoid possible adverse effect on the environment.
- 2) Local industries will be classified to those for domestic market and those for export. Again, these will be classified to agro-processing and others. In any case, most of them are aiming at export, though the export market is not effectively exploited as yet.
- 3) Most of the concerned parties perceives the fund issue as the bottleneck for renovation and expansion. However, there seems to exist more important issues to be addressed such as marketing, including quality control, standardization of products, collection of market information on consumers needs and efforts for market penetration and expansion.

III. On-Going Policy Measures Related to the Job Creation in Rural Areas

In view of the critical importance of employment issues in the socio-economic development, the Vietnamese government has been taking various policy measures to create job opportunities in rural and urban areas, especially since 1992. Followings are the major programs/schemes related to employment issues.

1. National Program on Job Creation

Following the Resolution No. 120/HDP dated April 11, 1992, National Program on Job Creation has been implemented with measures below.

(1) National Fund for Job Creation

In early 1990's, Viet Nam had experienced hyper inflation with increased unemployment. In those days, among employees of State Operated Enterprises accounting for more than 4 million, only 30-40% were said to have been actually employed. In rural areas, unemployment ratio had been said to have been around 10%. Therefore, creation of job opportunities both in urban and rural areas was of the high priority in the socio-economic policy. The Fund aims at assisting in increasing employment opportunities through extending loans for such schemes as related to job creation. During the years 1992-96, total disbursement amounted to 1,129.6 billion VND of which 966.2 billion VND were from the Government fund and remaining 263.4 billion VND were the revolving from repayments. The Government fund consists of General Account and tax and levies on remittance by Vietnamese workers overseas and the assistance from other countries such as former Czechoslovakia, Germany and European Union. During the period 1992-96, the jobs created through the Fund accounted for 1,051 thousand of which 860 thousand was in the agriculture sector. The ratio of actual working days to workable days is reported to have increased from 56% in 1991 to 65% in 1996. The Fund is

managed by the Ministry of Labor, War Invalids and Social Affairs (MOLISA).

(2) International Cooperation Scheme

To receive the repatriates from overseas, so called guest workers, and to promote their settlement in the country, former Czechoslovakia, Germany and European Union have extended assistance amounting to in total around 35million US dollars, which created job opportunities for 250 thousand repatriates who worked overseas.

(3) Vocational Training Centers

To upgrade the technical skill and knowledge, particularly of younger generation, Vocational Training Centers have been established nation wide and as of now 143 centers have been established and operational. By the year 2000, the number of the centers is planned to be increased to 500. The centers, in addition to the training, provide various information and services for job seekers and employers regarding recruitment and others. The centers are said to have contributed so far to additional employment of 200 thousand persons.

The National Program on Job Creation is under the supervision and control of the Executive Board consisting of the Vice Ministers of the Ministries of Finance, Planning and Investment, and MOLISA, and chaired by the Vice Minister of MOLISA. In the 1997 budget, 100 billion VND are earmarked, with allocation to: the Fund 77.5 billion, Vocational Training Centers 5 billion, Invalids and Small Scale Enterprises 3 billion, and relief of the jobless due to bankruptcy of SOEs 14.5 billion. In addition to the above budget, repayments of the fund are expected to amount to 350 billion VND which will be available for loans.

Regarding the implementation of loan disbursement, usually the amount to be distributed to provinces are decided by the central level and being informed to the provincial level. Provinces further allocate to districts and then districts to communes. Based on allocated amounts, programs are formulated for submission to the upper echelon for approval. There exist project appraisal boards both at provincial and central level, where all of the projects/programs are screened for implementation. Average amount per one project is 200 million VND, and priority target areas are urban and mountainous areas where unemployment issues are critical. SOEs are excluded from the target of the Fund.

2. Other Policy Measures for Employment

In addition to the above 1., followings are to be mentioned as important policy measures related to job creation in rural areas.

- 1) Poverty Reduction and Hunger Elimination Program. Implemented in selected 30 provinces.
- 2) Social Evil Elimination Programs. Drug Trafficking and Using Combat Program and Prostitution Combat Program, etc.
- 3) Program 327. Tree planting on barren land and bare hills, on the basis of forest allocation to households.
- 4) Program 773. Exploitation and use of deserted land, river banks and coastal land for agriculture.
- 5) Human Settlement Program. To deter shifting cultivation and nomadic lifestyle of ethnic minorities and promote their settlement
- 6) Program on Commune Group Center Building. To create core center of socio-economic and cultural activities at commune level, to stimulate rural economy including non-farming sector.

Through these program, 4.94 million people were reportedly provided jobs during 1991-1996, of which 1.83 million were of agriculture sector.

IV. Summary of Findings of Field Survey

To obtain actual information on non-farm job opportunity in rural areas, a number of enterprises and related agencies were visited in 4 provinces in the northern part of Viet Nam, namely Nghe An, Thanh Hoa, Phu Tho and Thai Binh. The enterprises visited include SOEs both at central and provincial managed, cooperative firms, shareholding (stock) companies and family business with varying degrees of scales. A summary of observations and finding of the field survey is presented in Annex.

V. Suggestions/Recommendations for Increasing Off-Farm Job Opportunities in Rural Areas

1. General Setting

Commonly observed phenomenon in the process of economic development is an increasing income disparity between urban and rural areas. This is mainly caused by industrialization in urban areas, and as a result population movement from rural to urban areas takes place. Experiences in many developing countries show that pushing force of population in rural areas due to poverty far exceeds pulling force of urban areas created by increased labor demand. Often undesirable consequences take place. They include overpopulation in urban areas with emergence of slums in cities, increased crimes, environmental pollution on one hand and depopulation in rural areas with abandonment of cultivated land, stagnation of agricultural production and devastation of natural resources. In Viet Nam, as more than 80% of the total population live in rural areas while subsistent small scale farming prevails, increase in labor productivity in rural areas tends to lag behind that in urban areas. Therefore, in addition to efforts for intensification and diversification of agriculture, creating off-farm job opportunities is one of the most important issues to be addressed, especially in view of limited land resources compared to the rural population.

Among recent experiences in developing economies in the region on this subject, the Township and Village Enterprises (TVEs) in China provide a successful example. A Report "Agriculture in Post-Transition Viet Nam: Opportunities and Challenges" (VIE/95/01T) introduces salient points of TVEs which would be pertinent to the Vietnamese endeavor on the development of off-farm employment. TVEs in China are now the substantial economic entities with the share of 74% to the total value of rural output and nearly 40% of the gross national output. Major factors contributed to the TVE's success are noted as i) favorable policy environment, ii) adjustment of production in response to market demand, iii) strong linkage to urban industry, iv) emphasis on labor intensive industry, and v) successful human resource development including local leaders. The through study of the case of TVEs in China seems to be worthwhile for the successful implementation of the development plan.

Off-farm job opportunities in rural areas are numerous, such as agro-processing, traditional handicraft, region-specific products and related service industry. Further, new enterprises are emerging in garment and other manufacturing. Tourism industry is expected in near future. Type and size of management are also diverse, from family business to cooperatives, stock companies, SOEs of central and local governments. Since natural and socio-economic conditions differ from one area to another, it is difficult to develop a prototype for development to be applicable to all, thus any effort to create jobs in rural areas should be considered in the framework of the comprehensive development plans or programs of specific communes or districts. In considering new enterprises in rural areas,

attention should be paid to whether i) it harmonizes with the existing agriculture, ii) it is conducive to conservation of natural resources, and iii) it fully mobilizes creative energy of the inhabitants.

2. Policy Options

From the foregoing settings and observations, the following policy options are suggested and recommended:

- 1) To promote off-farm activity in rural areas, improvement of infrastructure such as roads, electricity, communications and water supply are indispensable. Expanded access to loan facilities is also an urgent issue to be addressed as so many enterprises, especially of small scale ones are facing difficulties to obtain fund for establishing or modernizing facilities.
- 2) Local industries such as silk spinning/weaving, embroidery, silverware, rattan/bamboo/woodwork, lacquer-ware, porcelain and others have long history and tradition in respective communes and districts. These are the precious asset of respective areas to be effectively preserved and developed for the benefit of the rural population. However, many of them are now facing difficulties in expanding and identifying new markets, in addition to the constraints on fund and technological innovation. Due to the small scale with varieties of products by many producers, the individual producers are often in disadvantageous position in marketing of their products. Developing new markets or new products responding to needs of consumers will be practically beyond the capacity of individual producers. To overcome these constraints, an organization would be established for the joint effort of production and marketing. This organization would be a trade association, cooperative and any other group which would deal with collection and distribution of market information, sales promotion activities, quality control and guarantee, establishment of uniform brand and technology development of respective commodities. Both central and local governments are suggested to encourage the local effort in this direction.
- 3) To encourage investment from outside, including foreign investment, aggressive effort to provide information on the investment opportunities of target areas, such as potentials of development including human resources and access to market and necessary infrastructure. Trade fairs and the like should be organized and fully be utilized to this end.
- 4) To improve and accelerate commodity transaction between urban and rural areas, creation of wholesale markets in major cities and provincial centers would better be considered. This will encourage smooth and effective flow of commodities between urban and rural areas and, at the same time, to increase employment in the service sector.
- 5) Tourism industry in rural areas has potentials to be explored, though domestic demand will be limited at the moment. In promoting tourism in rural areas, infrastructure improvement will be the prerequisite, but at the same time, full attention should be paid on environmental protection so as to avoid irreversible consequence.
- 6) Governments, both central and local, should play an important role, especially on infrastructure improvement and loan facilities. Another aspect to pay attention by the government is to encourage and support for integration and coordination of efforts among different areas and respective types of enterprises. Due to small scale of enterprises and diversity of the products, these are beyond the capacity of individual enterprises. Initiative of enterprises are definitely important but advice and support by governments, both central and local, are equally indispensable.

Table 1 Population and employment (1000ps)

| | 1991 | 1992 | 1993 | 1994 | 1995 |
|--------------|-------|-------|-------|-------|-------|
| Population | 67774 | 69405 | 71026 | 72509 | 73959 |
| Urban | 13619 | 13258 | 13641 | 14139 | 14947 |
| Rural | 54155 | 56147 | 57384 | 58370 | 59012 |
| Male | 32994 | 33814 | 34581 | 35386 | 36092 |
| Female | 34780 | 35591 | 36445 | 37123 | 37867 |
| less than 15 | 26296 | 26582 | 26919 | 27119 | 27365 |
| 15-64 | 38428 | 39630 | 40769 | 41910 | 42896 |
| 65 and over | 3050 | 3193 | 3338 | 3480 | 3698 |
| Employment | 30974 | 31819 | 32718 | 33664 | 34600 |

Source General Statistical Office

Table 2 Composition of the above (%)

| | 1991 | 1992 | 1993 | 1994 | 1995 |
|--------------|------|------|------|------|------|
| Urban | 20.1 | 19.1 | 19.2 | 19.5 | 20.2 |
| Rural | 79.9 | 80.9 | 80.8 | 80.5 | 79.8 |
| Male | 48.7 | 48.7 | 48.7 | 48.8 | 48.8 |
| Female | 51.3 | 51.3 | 51.3 | 51.2 | 51.2 |
| less than 15 | 38.8 | 38.3 | 37.9 | 37.4 | 37.0 |
| 15-64 | 56.7 | 57.1 | 57.4 | 57.8 | 58.0 |
| 65 and over | 4.5 | 4.6 | 4.7 | 4.8 | 5.0 |
| Employment | 45.7 | 45.8 | 46.1 | 46.4 | 46.8 |

Source General Statistical Office

Table 3 Labor productivity by economic sectors
(per capita production, 1989 price basis) (1000 VND)

| | 1991 | 1992 | 1993 | 1994 | 1995 |
|---------------|------|------|------|------|------|
| Agriculture | 545 | 566 | 571 | 587 | 599 |
| Industry | 1780 | 2007 | 2205 | 2595 | 2938 |
| Construction | 1446 | 1596 | 1837 | 1914 | 1945 |
| Trade, Supply | 2126 | 2235 | 2312 | 2029 | 2175 |
| Trans, Comm | 1503 | 1574 | 1634 | 1730 | 1877 |
| Others | 3618 | 3823 | 4128 | 4028 | 4348 |
| Average | 1010 | 1068 | 1123 | 1188 | 1266 |

Source General Statistical Office

Table 4 Agricultural population (1000ps.)

| | 1991 | 1992 | 1993 | 1994 | 1995 |
|--------|--------|--------|--------|--------|--------|
| Total | 46,734 | 48,068 | 49,524 | 49,035 | 50,335 |
| N.M.M. | 8,311 | 9,295 | 9,607 | 9,892 | 10,077 |
| R.R.D. | 10,317 | 9,856 | 10,195 | 10,504 | 10,814 |
| N.C.C. | 6,667 | 6,971 | 7,204 | 7,117 | 7,414 |
| S.C.C. | 4,603 | 4,770 | 4,817 | 4,924 | 5,024 |
| C.H. | 1,710 | 1,937 | 2,137 | 2,150 | 2,241 |
| N.E.S. | 3,090 | 3,019 | 3,100 | 3,002 | 3,045 |
| M.D. | 12,023 | 12,221 | 12,464 | 11,446 | 11,719 |

Source Statistical Data of Agriculture, Forestry and Fishery: 1985-95

Table 5 Agricultural labor population (1000ps.)

| | 1991 | 1992 | 1993 | 1994 | 1995 |
|--------|--------|--------|--------|--------|--------|
| Total | 18,621 | 19,290 | 20,551 | 20,886 | 21,840 |
| N.M.M. | 3,564 | 3,750 | 4,324 | 4,195 | 4,353 |
| R.R.D. | 3,550 | 3,675 | 3,958 | 4,087 | 4,293 |
| N.C.C. | 2,565 | 2,593 | 2,648 | 2,710 | 2,813 |
| S.C.C. | 1,657 | 1,745 | 1,893 | 2,073 | 2,237 |
| C.H. | 686 | 712 | 875 | 928 | 990 |
| N.E.S. | 1,287 | 1,341 | 1,343 | 1,353 | 1,430 |
| M.D. | 5,312 | 5,472 | 5,781 | 5,541 | 5,725 |

Source Statistical Data of Agriculture, Forestry and Fishery: 1985-95

Table 6 Agricultural land/ agricultural population (ha)

| | 1991 | 1992 | 1993 | 1994 | 1995 |
|---------------|-------|-------|-------|-------|-------|
| Whole Country | 0.150 | 0.152 | 0.148 | 0.150 | 0.146 |
| N.M.M. | 0.158 | 0.142 | 0.135 | 0.121 | 0.115 |
| R.R.D. | 0.070 | 0.073 | 0.071 | 0.068 | 0.064 |
| N.C.C. | 0.106 | 0.101 | 0.096 | 0.094 | 0.091 |
| S.C.C. | 0.117 | 0.113 | 0.111 | 0.111 | 0.107 |
| C.H. | 0.265 | 0.255 | 0.268 | 0.293 | 0.259 |
| N.E.S. | 0.262 | 0.308 | 0.302 | 0.318 | 0.333 |
| M.D. | 0.122 | 0.212 | 0.208 | 0.232 | 0.231 |

Source Statistical Data of Agriculture, Forestry and Fishery: 1985-95

Table 7 Agricultural land / agricultural labor population (ha)

| | 1991 | 1992 | 1993 | 1994 | 1995 |
|---------------|-------|-------|-------|-------|-------|
| Whole Country | 0.376 | 0.378 | 0.358 | 0.353 | 0.337 |
| N.M.M. | 0.370 | 0.351 | 0.299 | 0.286 | 0.266 |
| R.R.D. | 0.203 | 0.196 | 0.182 | 0.174 | 0.160 |
| N.C.C. | 0.276 | 0.272 | 0.262 | 0.247 | 0.239 |
| S.C.C. | 0.325 | 0.309 | 0.282 | 0.263 | 0.240 |
| C.H. | 0.662 | 0.694 | 0.655 | 0.678 | 0.587 |
| N.E.S | 0.629 | 0.693 | 0.698 | 0.707 | 0.708 |
| M.D | 0.275 | 0.473 | 0.449 | 0.479 | 0.473 |

Source Statistical Data of Agriculture, Forestry and Fishery: 1985-95.

Table 8 Employed and unemployed: rural/urban, gender
(performance of last 7 days)

| | Rural / Urban | | Gender | | Total (%) |
|------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| | Rural | Urban | Male | Female | |
| Employed | 80.97 (93.13) | 19.03 (90.56) | 48.47 (93.54) | 51.53 (91.79) | 100.00 (92.63) |
| Unemployed | 75.08 (6.87) | 24.92 (9.44) | 42.06 (6.46) | 57.94 (8.21) | 100.00 (7.37) |
| Total (%) | 80.54 (100.00) | 19.46 (100.00) | 48.00 (100.00) | 52.00 (100.00) | 100.00 (100.00) |

Source Viet Nam Living Standards Survey 1992-93

Table 9 Reasons of not employed: past 12 months (%)

| | Male | | Female | | Total |
|--------------------|--------|--------|--------|--------|--------|
| | Rural | Urban | Rural | Urban | |
| Disabled | 3.20 | 6.04 | 3.30 | 1.82 | 3.38 |
| Old age | 26.35 | 30.19 | 34.43 | 28.42 | 30.46 |
| Do not want | 6.90 | 2.42 | 5.65 | 2.19 | 4.89 |
| Student | 33.74 | 39.13 | 15.22 | 24.59 | 25.50 |
| Home, child care | 2.22 | 0.97 | 15.83 | 24.77 | 11.62 |
| Too young | 5.17 | 1.69 | 3.30 | 1.82 | 3.32 |
| No Work | 8.50 | 10.39 | 6.43 | 6.01 | 7.49 |
| Don't know to find | 2.59 | 3.38 | 2.43 | 3.46 | 2.80 |
| Others | 11.33 | 5.80 | 13.39 | 6.92 | 10.53 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Source Viet Nam Living Standards Survey (VLSS)

Table 10 Types of employment: rural and urban (%) (past 12 months)

| | Rural | Urban | Total |
|------------------------|--------|--------|--------|
| Wage Earner | 4.23 | 32.73 | 9.55 |
| Farm Self Employed | 55.10 | 12.34 | 47.11 |
| Non-Farm Self Employed | 4.95 | 36.10 | 10.77 |
| F.S.E + W. E. | 16.27 | 6.27 | 14.40 |
| N.F.S.E +W.E. | 0.95 | 3.81 | 1.48 |
| F.S.E+N.F..S.E. | 15.27 | 7.18 | 13.76 |
| All of the above | 3.23 | 1.59 | 2.92 |
| Total | 100.00 | 100.00 | 100.00 |

Source VLSS

Table 11 Major income sources: rural and urban (%)

| | Rural | Urban | Total |
|----------------------------|--------|--------|--------|
| Agri. & Forestry | 51.57 | 4.86 | 36.3 |
| Non-Farm Self Employed | 28.14 | 54.75 | 36.84 |
| Wages | 16.59 | 32.44 | 21.77 |
| Pension, Subs. Scholarship | 2.85 | 4.20 | 3.29 |
| Others | .84 | 3.75 | 1.79 |
| Total | 100.00 | 100.00 | 100.00 |

Source VLSS

Table 12 Distribution of main income sources by region (%)

| | N.M.M | R.R.D | N.C.C. | S.C.C. | CH | N.E.S. | C.H. | Average |
|----------------|--------|--------|--------|--------|--------|--------|--------|---------|
| Agri.&Forestry | 63.11 | 39.93 | 46.97 | 21.17 | 64.56 | 11.27 | 40.70 | 36.30 |
| Non Farm S.E | 19.76 | 36.52 | 34.14 | 45.77 | 14.37 | 50.67 | 33.53 | 36.84 |
| Wage Earner | 11.15 | 16.59 | 12.22 | 28.03 | 19.95 | 32.73 | 22.91 | 21.77 |
| Pension, Subs. | 5.59 | 6.16 | 6.15 | 3.33 | 1.07 | 1.03 | 1.07 | 3.29 |
| Others | .38 | .80 | .51 | 1.69 | .05 | 4.30 | 1.79 | 1.79 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Source VLSS

Table 13 Average working hours per employed population (by expenditure quintile, last 12 months)

| | I | II | III | IV | V | Average |
|--------|--------|--------|--------|--------|--------|---------|
| Rural | 1602.2 | 1596.2 | 1569.9 | 1592.6 | 1647.4 | 1597.4 |
| Male | 1633.8 | 1660.7 | 1607.4 | 1658.7 | 1692.5 | 1646.6 |
| Female | 1574.0 | 1538.2 | 1532.3 | 1530.4 | 1606.1 | 1552.0 |
| Urban | 1993.5 | 1712.0 | 1747.9 | 1983.1 | 2153.5 | 2025.7 |
| Male | 1784.5 | 1781.2 | 1745.4 | 1946.3 | 2106.8 | 1988.2 |
| Female | 2207.0 | 1647.8 | 1750.0 | 2015.2 | 2195.5 | 2059.4 |
| Total | 1617.2 | 1603.4 | 1590.0 | 1674.4 | 1890.1 | 1677.5 |
| Male | 1639.9 | 1668.3 | 1623.1 | 1717.1 | 1890.2 | 1709.7 |
| Female | 1596.7 | 1544.9 | 1558.6 | 1634.9 | 1890.1 | 1647.8 |

Source VLSS

Table 14 Average yearly income per capita (1000 VND)
(income source-wise)

| | Rural | Urban | Average |
|----------------------------|--------------|--------------|---------------|
| Agri. & Forestry | 478.9 | 88.1 | 401.1 |
| Non-Farm Self Employment | 261.4 | 993.7 | 407.1 |
| Wage Earner | 154.1 | 588.8 | 240.6 |
| Pension, Subs. Scholarship | 26.5 | 76.3 | 36.4 |
| Others | 7.8 | 68.1 | 19.8 |
| Total | 928.7 | 1815. | 1105.1 |

Source VLSS

Table15 Monthly wages, rural and urban, genders (1000VND)

| | N.M. | R.R.D. | N.C. | C.C. | C.H. | N.E.S. | M.D | Average |
|----------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|
| Urban | | | | | | | | |
| Male | 138.37 | 242.79 | 126.93 | 212.70 | — | 359.21 | 205.48 | 251.6 |
| Female | 92.96 | 171.40 | 76.15 | — | — | 262.49 | 130.81 | 174.54 |
| Rural | | | | | | | | |
| Male | 59.85 | 74.60 | 60.91 | 104.33 | 120.46 | 183.77 | 111.41 | 97.93 |
| Female | 48.47 | 53.39 | 48.23 | 82.39 | 82.19 | 111.55 | 64.83 | 67.82 |
| Average | 71.44 | 104.07 | 67.19 | 133.73 | 106.25 | 243.08 | 107.44 | 124.92 |

Source VLSS

ANNEX

Summary of Findings of Field Survey

1. Nghe An Province

In this province, Nam Dan District was selected as the survey area where two cases, Nam Dan Candy Factory as an SOB (district) and a family business of traditional soy sauce, "Tuong," were visited.

(1) Nam Dan Candy Factory

Regarding the background of this factory, it may be useful to refer to the District Development Plan in 1984. The plan at that time consisted of 3 components of sugar refinery, alcohol production and candy production based on the local produce of sugarcane. Sugar refinery was designed by Hanoi Technology College, alcohol brewery by Hanoi Brewery and candy factory by Hai Ha company in Hanoi with technical know-how. Sugar refinery had been put into operation but in a few years it was forced to close the factory by management problems. Alcohol production did not materialize from the beginning due to trouble of the original design. The candy factory is the only one operating as of now.

The factory started its operation in 1986, in the same year as for sugar refinery, and continued though in a very much reduced scale. With the fixed capital of 41 million VND and working capital of 131 million VND, yearly sales amounted to 320 million VND and profit to 30 million VND in 1995. Annual output stands around 40-45 tons with 8 months operation. Usually, from May to August are the slack season of candy sales, therefore the factory is closed in the period. Products are mainly sold in the district and partly in other districts in Nghe An Province.

Total employees are only 11 at present compared to 35 in the peak period of 1990. All of the employees are from farm family, paid monthly wages of 350-500 thousand VND. During off-season of operation, they mostly engage in their farm work.

The district authority intends to expand and modernize the factory, as it, though small scale, has no debt and fairly in stable management. Further, authorities concerned are eager to explore export opportunities of the product in future. However, as the international market for candy/confectionery is under severe competition with many big multinational enterprises, it seems to be too ambitious to consider export at the present moment. Domestic market should be essentially focused and in the process of establishing solid foundation of the enterprise, a possibility of export would be exploited in collaboration with foreign partners in one way or another. At present, contribution of the factory to rural employment is limited. Expansion and modernization are important and this calls for solid marketing prospect and fund for additional input.

(2) "Tuong" (traditional soy sauce)

"Tuong" production is one of the traditional family business in Nam Dan District of Nghe An Province. Around two-thirds of families in the district reportedly produce "Tuong" mainly for their home consumption and those who produce for sale are limited to 1-2% of the total producers. At present the total production stands around 1,000 tons (1 million litres) and those who produce for sale are increasing recently. As "Tuong" in Nam Dan is well known all over the country, the district authorities are encouraging rural families to produce "Tuong" for sale all over the country as one of the special products of the district. For this purpose, the district government is paying special attention on quality control, unified labeling and sales promotion. Utilizing local products such as soybeans,

rice (malted) and green mappé, "Tuong" production is seen as one of the promising local industries specific to this area. Therefore, the district is intending to establish a plant of 600 thousand tons/year capacity as an SOE.

One family business of "Tuong" was visited. In this family, for more than seven generations "Tuong" production has been continued. This is one of the biggest family businesses in the area and production is mainly managed by the housewife. Annual production amounts to 3,000-4,000 tons, most of which are for sale. Facilities and equipment are simple, such as soybean and rice malt processing space, porcelain jars for fermentation and their storing space and bottling space. Quality of water is said to be crucial to the quality of product and usually rain or well water are suitable to the production.

Farm gate price of "Tuong" was 4,000 VND/650cc.(retail price at 5,000 VND), making the turnover of this family business at 18-24 million VND. This sort of local industry seems to have the potential to further develop as an agro-processing industry utilizing local resources if due attention is paid on marketing and modernization of production system.

2. Thanh Hoa Province

In this province, Lam Son Sugar Factory, Sao Van State Farm and a tile producing company were visited. The first one is an SOE and the last is a private company.

(i) Lam Son Sugar Factory

The factory was established in 1986 in Tho Xuan District as one of the core enterprises of New Economic Zone. In April 1994, the factory was reorganized as an SOE under the then Ministry of Agriculture and Food Industry (at present MARD). Production expanded year by year and in 1996-97 year sugar production reached at 38,000 tons which is nearly 20 times of that of 1989-90. In addition to sugar refinery, molasses, candy, alcohol and soft drinks production are being made.

Sugar cane, the raw material of the production lines, is provided by 54 communes and 4 state farms of surrounding area, with total sugarcane growing area of 7,800 hectares. State farms occupy about 20% of the growing area while individual farmers in 54 communes the remaining 80%. The factory has its own farm of 100 hectares which is mostly devoted to the selection and multiplication of high yielding cultivars and promising seedlings. These are distributed to state farms and individual farmers in the communes.

Processing capacity of sugar cane is expanding from 2,500 tons/day to 4,000 tons/day. In parallel to the capacity, growing area of sugar cane is planned to be expanded, as the target area for 1999 is set at 15,000 hectares. Total employees of the factory is around 1,000, hired mostly from farm families around the area. At the same time a number of employees residing nearby towns of Lam Son creates the center of New Economic Zone. Operation period of sugar refinery is about 180 days/year, but most of the employees are hired throughout the year, in off-season of sugar refinery working for maintenance of machinery, equipment and road repair and sugarcane farm of the factory. Monthly wages are 300-500 thousand VND.

The impact of the sugar refinery and company is enormous to the regional economy in general and employment in particular. In addition to the direct employment of the factory, many farmers obtained the opportunity to grow sugarcane as cash crops. Most of the sugarcane field has been switched over from cassava and maize field, but fairly wide areas were also developed from bare and deserted land.

Yield per hectare is not so high, being at 60-70 tons, but highly appreciated by farmers as a valuable cash income source. Average size of sugarcane growing is 0.5-1.0 ha, but larger scale farms of 15-20 hectares exist, which have succeeded in developing bare land and bald hills owned by communes.

This should be noted as a successful case of regional development and enhanced employment opportunities closely linked to agricultural potentials of the region. As sugar is not yet self sufficient in Viet Nam, sugar industry is protected in one way or another from the direct competition of international market at present. In connection with AFTA or WTO, the sugar industry of Viet Nam may also face the severe competition with producers overseas in future. Therefore, foundation of the enterprise should urgently be strengthened with respect to the productivity and efficiency.

(2) Sao Vang State Farm

The state farm is located in Tho Xuan District, in the same district of the Lam Son sugar factory, and supplies sugarcane to the factory. The state farm was established in 1960, with 700 households and 2,900 hectares of land. Agricultural land was 1,700 hectares, other area was hilly land, partly occupied by army facilities. Total workforce was 1,250. Initially (1960-72) the state farm tried to develop coffee plantation but due to climatic condition it was not successful and switched to cattle raising and sugarcane growing in 1972. Since 1984 cattle raising declined sharply and concentrated in sugarcane growing.

In 1990, the state farm had a drastic change, distributing farmland to the members of the farm. Members obtained farmland of 1.0-1.2 hectares per family with land use rights. By this, role and function of the state farm changed, transferring most of the production activities to member farmers and concentrating on support services such as soil improvement, plant protection, marketing of products and procurement of farm inputs. Other important functions of the state farm left over are related to social services such as supply of electricity and its fee collection, management of primary schools and health clinics. Total number of staff of the state farm was 60, of which salary of school teachers and medical doctors were borne by the government.

The income of the state farm is mostly service fees and land tax based on contracts between the state farm and individual members which generally account for 12-14 % of the agricultural production.

(3) Tile production enterprise

A private firm of tile production located in the town of Than Hoa was visited. This enterprise was established in 1991 as a stock company consisting mostly of family members and relatives aimed at production and sales of tiles used for floors and walls and also decorative furnitures. Material rocks are available at the sites of 10-50 km from the factory, and not only excavating the material directly, the company also purchases the material from those excavating. Starting the operation with only 15 employees in 1991, the company now employs 130, demonstrating a rapid growth due to the construction boom in the country. Market at the moment is dominantly domestic, but effort to expand foreign market is being made. Eastern European and Arab countries are the destinations at this trial stage.

The management feels strongly needs to improve the quality and upgrade the equipment and facility as most of the machines used are domestic produce. Wage level per month is said to be 300 thousand VND.

Very active and creative attitude of the management seems to have contributed to growth of the enterprise to date. This is a successful case of small scale enterprises mobilizing natural resources of the region, whereby creating new job opportunities although limited in its scale.

3. Phu Tho Province

In November 1996, as provincial division was altered, Vinh Phu Province in the past is now divided

to Phu Tho and Vinh Phuc Provinces. In Phu Tho Province, an SOE (provincial) for garment, another SOE (central) for tea processing, a tea growing farm and Vocational Training Center were visited.

(1) Viet Tri Garment Enterprise (SOE of the Province)

This enterprise was established in 1994 as an SOE of the province as a garment enterprise. Located in Viet Tri, the center of the province, garment production is essentially oriented to export, as major markets being Germany, Holland and Japan. Started with employees of 150 in 1994, it has grown to nearly 400 employees level at present. Employees are mostly young females living in the town and coming from rural areas. At the initial stage of operation, the enterprise had its own training program but it was terminated recently and hiring those who have some experience in managing sewing machine. Employees are not highly educated, generally being less than 12 grade. Monthly wage is around 500 thousand, which is generally high in local standard, thus attracts many applicants.

The growth of enterprise is clearly shown as the construction work of the factory for expansion is being made. Major concern of the management is the quality improvement and marketing of the product.

(2) Vocational Training Center

The Center was established in 1990 as an institution of the provincial government. Budget and administrative control are the jurisdiction of the provincial government, though in technical aspect the center maintains close relation with MOLISA of the central government.

Major activities of the center include vocational training, job consultancy and use of training facilities. Vocational training is implemented on 5 courses, i.e., garment, electronics, and driving (passenger car, truck and tractor). Duration of training differs by course with the longest of 6 months to the shortest of 2 weeks. Recruitment of the trainees is usually done through mass media such as news papers, radio and TV, and the cost of training is borne by trainees in principle, though invalids and repatriates are exempted. Of the trainees, 40% are from rural and the remaining 60% from urban areas. The center has reportedly trained 6,032 so far. The problem faced by the center is the shortage of facilities and equipment.

(3) Phu Tho Tea Factory

The factory, located in Thanh Ba District, was established in 1957 as an SOE by USSR with a processing capacity of raw tea leaves of 35 tons/day. Getting into a joint-venture with Belgium in 1996, the factory is now renovating and expanding production capacity to 56 tons/day for the production of black tea to be exported to Europe. The factory management sees the overseas market of green tea as fairly volatile.

The factory procures material tea leaves from its own tea garden of 600 hectares and those of individual farmers in 22 communes nearby of total area of 1,300 hectares. Harvest of tea leaves starts in March and continues until October/November, usually 20 times harvest per tree per year. Collection of tea leaves is usually made by producers/farmers, bringing in directly to the factory or a number of collection spots setup by the factory for remote areas.

Purchasing prices of tea leaves are said to be decided basically based on the current international price of tea. Farm gate price stood 1,700 VND/kg at the time of visit. Export of the product (black tea) is handled by the Viet Nam Tea Corporation.

The factory employs 15 staff, who are mostly engineers including those working in its own tea garden, and other 120-180 employees regularly. In peak season, this will increase to 230. These employees come from the rural families in the district.

Average size of tea garden among farmers growing tea is around 0.5 hectare, which provides cash income of around 3.0-3.6 million VND per family per year. Direct employment of the factory seems modest at less than 200, however, the factory provides valuable source of cash income to farmers in mountainous area where such opportunities are limited.

(4) A tea growing farmer in Thanh Ba District

One tea growing farmer who sells tea leaves to the factory was visited. This family of 6 members owns 0.36 hectare of tea garden and 0.28 hectare of paddy field. The hilly area is devoted to tea garden while flat lowland for paddy.

The family immigrated from a nearby district in 1982 and started tea planting in the same year, reaching the present size of 0.36 hectare in 1990. It was explained that usually it takes about 5 years to reach the stable yield level after planting. Average yield was 5.0 tons/ha, which is relatively high among farmers in the region. Rice crop, mostly for family consumption, are grown 2 times a year, with yield 4.0 tons/ha for winter-spring paddy and 3.5 tons/ha for summer-autumn paddy. Therefore, tea is the most important income source of the family. In peak season of tea harvesting, the family requires temporary employment.

4. Thai Binh Province

In this province, traditional rural industries such as silver curving, silk weaving and porcelain were visited. In addition, a garment enterprise was also visited. Their management types are diversified to an SOE, cooperatives and family enterprises.

(1) Phu Loi Curve Center

Silver work is one of the traditional artifacts of Le Loi Commune of the Kien Xuan District with more than 600 years history. In 1959, this business in the commune was integrated to the former cooperative with 380 members. The business could enjoy better days when export to the former USSR and East European countries flourished. The new cooperative was established in 1996 based on the new law on cooperatives with decreased members of only 158, and the remaining being independent individual enterprises.

The cooperative produces, in addition to silverware, tapestry and embroidery for Japanese kimono based on the consignment by Japanese firms, though silverware remains the main business.

In the past, silverware was exported through ARTEXPORT, an SOE, but now the systematic export to Eastern European countries are almost ceased and the demand is mostly from tourists in Hanoi and Ho Chi Minh City.

All of the cooperative members participate in activities of the center in one way or another. Distribution of profit are usually made by 80 % for wages and 20% for dividend to capital contribution. Average monthly wage is 200 thousand VND, with 10 months working per year. The remaining 2 months are devoted to farming of their families.

Regarding technical aspect, delay in mechanization is the serious concern of the center. Recently, an electrical polishing machine has been introduced using loan provided by the provincial government. The center is providing training on silverware for local youth.

After dissolution of the former cooperatives, many individual households have engaged in silverware production without joining new cooperatives which has often invited excessive competition among producers. As no mechanism nor arrangement exists for coordination and exchange of information related to marketing among small scale producers, they are basically in a disadvantageous situation in marketing. Naturally, the producers are passive regarding sales of their products, mostly

depending on local middlemen or shops in Hanoi and Ho Chi Minh City.

Organizing effort for marketing and new products development is considered important and urgent, but at the moment this is not seriously taken by most of the producers. There exist a limited number of people who is really aware of these needs, but so far no solid direction for the problem has been identified.

(2) A silk spinning and weaving household enterprise

At Nam Cao Commune, Kien Xuong District, a household enterprise of silk spinning/weaving were visited. In Kien Xuong district, 1,500 hectares of mulberry plantation and annual production of cocoons of 1,500 tons are reported. Usually 35 tons of fine silk are exported annually through an SOE.

This family enterprise, for many generations, has been purchasing waste cocoons and threads spanned from waste cocoons from farmers, and producing silk textiles for export. With 5 family members and 20 employees, production recorded 40 tons (silk thread basis) in 1996. Threads are woven and usually sold to ethnic minorities in Laos. In addition to the workers including family members, the enterprise has 40 contract farmers who spin threads for this enterprise. Performance of the past few years seems to have been satisfactory, according to the manager of the enterprise. Wage of employees per month was 500 thousand VND in average, relatively high at regional standard. In the area two other enterprises of the similar scale exist and information exchange on market situation is quite frequent if not regular among the enterprises.

(3) Thai Binh Porcelain Co. in Tien Hai district

Taking advantage of the success in exploitation of natural gas in the district, the company was established as a provincial SOE in 1985 in a development program utilizing this energy resource. Actual production started in 1989 with major products being tableware and flowerpot. Major export items among them are coffee cups.

Mechanization of the production line is going on, yet because of the basically labor intensive nature of the industry, 420 are employed. Fluctuation of market demand was experienced in the past few years and responding to these situation, the number of employees also fluctuated from 536 to 420 at present. After recession in 1996, it is now on the recovering trend and the company intends to increase the number to 500 within 1997.

Market are both for domestic and abroad with around even shares. Overseas market, formerly dominated by USSR and Eastern European countries is now changing to Taiwan, African and European countries and Japan which is considered as a new promising market to be explored.

Serious concern was expressed by the management on the severe competition with Chinese products circulating in the country and in overseas markets. Domestic consumers are gradually acknowledging the qualities of domestic products, however, the company often faces the difficulty by cheap price offered by Chinese products, due partly to the smuggling across the border.

Among employees, male-female ratio is 52-48, mostly of farm family origin. Wages are applied partly on yield basis and monthly average is 250 thousand VND. Improvement of technology and increase in productivity are the major issues now addressed by the company.

(4) A textile weaving cooperative in Do Sa Commune of Dong Hung District

Origin of a cooperative dates back to 1960 when the cooperative started with membership of about 200. After reorganization under the new Cooperative Law, the membership increased to 600. Main products are garment, partly supplemented by carpet production. All the products are for export, in case of carpet to Russia, Australia, South Korea and Japan and garment entirely to Japan under the

consigned production through Korean trade firms.

In retrospect, the cooperative changed the kinds of production, namely, in the period 1960-73 on cotton textile, 1973-90 on woolen textile, carpet and jute products, 1990-95 on carpet and from 1995 up to now on garment. Domestic market is considered promising and the cooperative intends to sell in domestic market from the latter part of 1997.

All of 600 cooperative members are from farm families. Of these, 400 provide both capital investment and labor while the remaining 200 labor alone. All of 600 members are generally employed throughout the year. In addition, a number of temporary employees are accepted as the trainees. Average monthly wages are 300 thousand VND for garment and 200 thousand VND for carpet production.

As the plan of operation in future, the cooperative intends to expand the garment branch drastically, while maintaining the carpet branch at present level. For this, additional investment of 7 billion VND and recruitment of a substantive number of employees are required. Renovation of production line seems to be a concern at the moment.

There exist two other similar cooperatives and one private enterprise in the commune, therefore, the district authority is considering to bring up garment as the core industry for increasing job opportunities in the commune.

Development of Rural Infrastructure in the Red River Delta Region

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I . General Situation of the Red River Delta Region

The Red River Delta region with an area of some 13,000 km² accounts for only 4% of the total area of Viet Nam. The region's economy is dominated by agriculture which is carried out on an area of 689 thousand hectares of agricultural land, or 9.4% of the entire area of the country (in 1995). The average acreage per farm is extremely small, only 0.26 hectare. Paddy is the dominant crop grown on 577 thousand hectares of paddy land with the average yield of 4.44 ton per hectare. The basin thus provides 4.6 million tons or about 19% of the total paddy of Viet Nam. With the population of nearly 14 million (or nearly 18 million including the surrounding two provinces of Vinh Phu and Ha Bac), the region constitutes one-fourth of the country's total population. Although the region has achieved a steady increase in food and paddy production in the late 80's and early 90's, it has not completely eliminated yearly fluctuations even a possibility of recurrence of poor harvests. Improvement of agricultural production and productivity of the Red River Delta region is crucial to sustainable development of the socio-economy of the country. Selected indicators showing the agricultural situation of the region are presented in Table 1.

The delta has abundant water resources which have been developed over centuries. The acreage of annual crop under irrigation and drainage accounts for 481 thousand hectares (or 76% of annual crop land) and 406 thousand hectares (or 64%) respectively. Main rivers are protected from flooding by banks of 3,000 km long and coastal lines from intrusion of sea water by dikes of 1,500 km long. Rural road networks are denser than other regions and electrification equally covers rural households at the highest ratio (Table 2).

II . Situation of Rural Infrastructure

The delta is divided by some thirty irrigation and drainage systems each of which is encircled by dikes and banks. Within a system, irrigated water is taken through "intake sluices", irrigated by gravity, and drained through "drainage sluices". Since the 60's, these systems have been equipped with large pumps serving both for irrigation and drainage which have contributed to ensure irrigation water and to mitigate the problem of water logging inherent to gravity irrigation/drainage. At present there are approximately 1,700 pumping stations with some 6,800 pumps. Practically all the area that

paddy is grown is irrigated. The area served by pumping irrigation managed by either irrigation companies or local communities is estimated to be nearly two-thirds of the total irrigated acreage, and the remaining one-third by gravity irrigation. However, according to the record in past seven years, on average about 20% of the sown areas of both winter/spring and summer/autumn paddies were short of irrigated water, and 15% of the area suffered from flooding (Tables 3 and 4). It is also said that some 100,000 hectares suffer from and some 200,000 hectares are at risk of flooding or water logging. This is partially caused by planning deficiency of facilities as in the 60's they were planned for long stemmed rice and partially by dual use of canals for irrigation and drainage.

Most irrigation and drainage facilities have been repaired and partially replaced for years, but main structures have remained unchanged. Performance of canals has declined over time due to silting, while pumps wear down caused by soil particles in the water and damages of electric circuits caused by humid tropical climate. In some places, sedimentation settles in canals and structures resulting in lowering of the capacity. Dredging of canals and overhauling of structures have rarely been carried out. Efficiency of irrigation and drainage thus declines, breakdowns often take place, and operation and maintenance (O & M) costs increase.

In irrigation/drainage systems, tertiary canals play an important role to effectively provide water to and drain it from fields. Prevailing arrangements of tertiary canals, usually used for dual purposes of irrigation and drainage and often placed at 100 meter intervals, prevents from growing other crops which need a more delicate water control than paddy. In a slightly elevated upland within paddy land, as the direct distribution of water to individual plots is not possible, the manual lifts of water is required. Since O & M of tertiary canals are the responsibility of individual farmers or their associations/cooperatives, sometimes shortage of fund and difficulty to mobilize labor contributions make it difficult to properly maintain them and their related facilities.

Tiny and scattered parcels of farm land are the popular phenomenon in the Red River Delta. In fact, on average farm land of individual households is divided into 8.8 parcels with an average acreage of only 0.035 hectare each. Under these circumstances, farmers must cross over parcels and bunds of other farmers before reaching his own land for lack of farm roads. Although consolidation of these small parcels is generally considered difficult due to their scattered distribution and delay in issuing of land use certificates, initiatives in this regard have reportedly been taken in a few communes and districts of the region.

Rural roads and rural electrification in the region are at least in figures more dense than other regions. However most of inter-commune roads are not paved and do not allow vehicles, and in rainy season even bicycles, to pass. These roads are particularly relevant and essential to promote agricultural diversification and rural industrialization in facilitating the access of farm products to markets and rural people to employed locations. Together with virtual lack of in-commune and in-field roads, their inferior conditions hinder marketing and working outside communes.

III. Capital Investment and O&M In Rural Infrastructure Development

Capital in rural infrastructure in stock terms includes that of irrigation/drainage/flood protection, rural roads and rural electrification. It is estimated to have increased on an annual average in the order of VND 2 to 3 trillion for 1989-1995 at constant 1989 prices (Table 5), or at an average rate of increase of 8.7%. This increase broadly corresponds with the annual net investment. Compared with the rates of increase in fertilizer inputs and other assets in recent years, however, the increase in capital in rural infrastructure has been slower.

Future prospect of the investment in rural infrastructure is shown in the Public Investment Program

for 1996-2000 as summarized in Table 6. The investment for rural infrastructure relies almost entirely on the expenditure from the state budget, comprising 20.9% of the total state investment. An estimated amount of VND 20.2 trillion is estimated to be allocated to rural infrastructure including VND 14.5 trillion for water resources development. While these figures are considered to be attainable based on the recent past record, it needs to be further examined whether such a level of investment would be enough to keep the growth of agricultural production for the future. To a reference, the incremental capital output ratio (ICOR) is calculated on the basis of information for 1992-95. The ratio of 2.33 is thus obtained which suggests that, for instance, in order to achieve an annual increase in agricultural output of 4.5%, a 10.5% annual increase in capital investment is required.

Delivery of the state funds to infrastructure development largely follows the procedures applied to other capital expenditures. Specifically costs of planning, construction, repairs and replacements of main structures and related facilities of large sized irrigation, drainage and reservoir works with the command area of 150 hectares and above are in principle financed from the state budget. Funds from local governments are usually provided for secondary works of these projects. Works with the command area of less than 150 hectares are, as a matter of principle, carried out by local governments and beneficiaries with their funds and contributions. Smaller sized projects within one commune are totally constructed and maintained by the local communities and people.

After the completion of construction, responsibilities of O & M of large sized facilities are transferred to provincial governments, in case of irrigation/drainage facilities, to provincial irrigation managing companies. These public companies are delegated to collect water fees from beneficiaries which are expected to cover the cost of administration, electricity and regular repairs. In practice, farmers' organizations often agricultural cooperatives take charge of collection of water fees and O & M of small sized irrigation/drainage facilities. In many cases, collected fees are below required costs of O & M which results in the failure of proper O & M of canals and related structures and declines in the operation efficiency. Regarding rural roads, O & M and funding practices are similar to those for irrigation/drainage.

IV . Activities and Approach of International Organizations Regarding Rural Infrastructure Development

A considerable part of the investment in rural infrastructure in the region has been funded by international organizations, mostly in water resources development. The Red River Delta Water Resources Sector Project funded by the Asian Development Bank (ADB) is one of the major projects under implementation. This project intends to rehabilitate selected irrigation/drainage systems by replacing and repairing the pumping stations, sluices and dredging related canals. As a sector project covering the whole delta, the project comprises 35 sub-projects with a total cost of US\$ 75 million and will be implemented for a five year period. In addition, the World Bank has started a project for improving some 5,000 km of rural roads with a cost of US\$ 55 million. This is also a sector project in which rehabilitation of rural roads in the delta will be included. The World Food Programme (WFP) has long been implementing a series of projects strengthening coastal dikes protecting the delta from intrusion of sea water.

Besides, there are studies concerning the development of the delta: the Red River Delta Master Plan held by United Nations Development Programme (UNDP) in cooperation with the World Bank, and the Water Resources Sector Review carried out by the World Bank, UNDP, Food and Agriculture Organization of the United Nations (FAO) and Ministry of Agriculture and Rural Development

(MARD). The former study aims at indicating the guidelines of development of the delta region and at specifying priority projects. The latter study, covering all over the country but by main basins, reviewed the situation, identified constraints of development and indicated issues for water resources development.

While each of these projects and studies has a different scope and objective, they share the view in common that water resources development, specifically irrigation, drainage and flood control, is the key of agricultural development of the delta. They also follow an approach that in short terms an emphasis should be placed on rehabilitation of irrigation and drainage facilities and recently rural roads, by means of their repairs, replacements and performance enhancement. There is no doubt in the necessity and urgency of rehabilitation of the existing infrastructure, but it may not be enough to build the basis for sustainable development of agriculture and rural economy for the future.

V. Issues and Policy Options for Future Development

From the above findings, issues facing rural infrastructure development of the Red River Delta region are summarized as follows:

- 1) Irrigation and drainage systems are not functioning satisfactorily due to the combined effect of deficient initial planning, non-separation of drainage from irrigation canals, and decline of performance caused by aged and deteriorated facilities. As a result, a significant part of irrigated areas is short of water in seasons while water logging takes place at a considerable degree;
- 2) Since development as well as O & M of tertiary canals and related facilities are delegated to communities and beneficiaries, their level of development is generally inferior and O & M are not properly carried out due to shortage of funds and other reasons;
- 3) Agricultural diversification, which is meant in the region to be a diversion from paddy to other farm activities, has significantly progressed in some areas while not in other areas. This is partially attributed to water control systems of respective areas which, along with respective agro-ecological conditions, determine the possibility and extent of agricultural diversification;
- 4) Poor condition of rural roads, particularly at community and on-farm levels, prevents farmers from marketing products arisen from agricultural diversification as well as taking opportunities of non-agricultural employment; and
- 5) An increased public investment would be required to ensure the sustainable development of agricultural production for the future. O & M of infrastructure remains problematic, and, in case of irrigation/drainage facilities, shortage of collected water fees has led to deterioration of facilities which has in turn increased O & M costs.

For resolving and overcoming the above constraints, the following policy options are suggested:

- 1) To review the existing development plans of rural infrastructure from the aspects of agro-ecological situation and water resources development according to respective areas, and roles of concerned institutions such as central and local governments, water management companies, cooperatives and individual farmers are specified;
- 2) In developing irrigation/drainage infrastructure, an integrated approach encompassing main and auxiliary facilities, together with consolidation of scattered farmland plots and construction of small in-field roads, would be adopted and pursued;
- 3) The state budget would be allocated with a priority to rural infrastructure. Regarding water fees, the present situation would be rectified by reviewing the level of water fees and by allowing an allocation of public funds for this purpose;

4) In order to enhance the access of agricultural products to markets and rural people to employment opportunities, “market spheres” would be specified, and related infrastructure such as rural roads, particularly at commune level, and local market facilities would be further improved; and

5) Since natural and socio-economic conditions related to agricultural production and the consequent infrastructure development are largely specific to individual regions and areas, similar studies to this one undertaken for the Red River Delta region would be carried out for other regions and areas.

Table 1 Selected indicators of agricultural situation of the Red River Delta Region

| | Unit | Data as of 1995 | | | Ratio(%) | |
|--|----------|-----------------|-------------|-------------|-------------------|------------------|
| | | RDD | Other | Whole | RDD | Other |
| | | Region (a) | Regions (b) | Country (c) | Region (a/c) | Regions (b/c) |
| Agricultural land | ha | 688,941 | 6,668,593 | 7,357,534 | 9 | 91 |
| Agricultural household | 000 unit | 2,647.30 | 7,820 | 10,467.70 | 25 | 75 |
| Average area of agricultural land per farm household | ha | 0.260 | 0.853 | 0.703 | 37 | 121 |
| Agricultural population | 000 head | 10,814.30 | 39,520.30 | 50,334.60 | 21 | 79 |
| Agricultural labour | 000 head | 4,292.60 | 17,547.40 | 21,840.00 | 20 | 80 |
| Annual crop land | ha | 626,500 | 4,776,622 | 5,403,122 | 12 | 88 |
| Sown area of crops | 000 ha | 1,400.70 | 9,096.20 | 10,496.90 | 13 | 87 |
| Sown area of annual crops | 000 ha | 1,361.40 | 7,863.00 | 9,224.40 | 15 | 85 |
| Cropping intensity of annual crop | % | 217 | 165 | 171 | 127 | 96 |
| Food crops equivalent to paddy | | | | | | |
| Sown area | 000 ha | 1,209.6 | 6,762.3 | 7,971.9 | 15 | 85 |
| Yield | t/ha | 4.19 | 3.33 | 3.46 | 121 | 96 |
| Gross output | 000 ton | 5,073.3 | 22,497.6 | 27,570.9 | 18 | 82 |
| Gross output, sown area of paddy | | | | | | |
| Sown area | ha | 1,042.1 | 5,723.5 | 6,765.6 | 15 | 85 |
| Yield | t/ha | 4.44 | 3.55 | 3.69 | 120 | 96 |
| Gross output | 000 ton | 4,623.1 | 20,340.6 | 24,963.7 | 19 | 81 |
| Spring paddy | | | | | | |
| Sown area | 000 ha | 511.9 | 1,909.4 | 2,421.30 | 21 | 79 |
| Yield | t/ha | 4.71 | 4.36 | 4.43 | 106 ¹⁾ | 98 ¹⁾ |
| Gross output | 000 ton | 2410.9 | 8325.7 | 10736.6 | 22 | 78 |
| Winter paddy | | | | | | |
| Sown area | 000 ha | 530.2 | 2,071.7 | 2,601.90 | 20 | 80 |
| Yield | t/ha | 4.17 | 2.66 | 2.97 | 140 ¹⁾ | 90 ¹⁾ |
| Gross output | 000 ton | 2212.2 | 5514.1 | 7726.3 | 29 | 71 |
| Other cereals (paddy equivalent) | | | | | | |
| Sown area | 000 ha | 167.5 | 1038.8 | 1206.3 | 14 | 86 |
| Yield | t/ha | 2.69 | 2.08 | 2.16 | 125 ¹⁾ | 96 ¹⁾ |
| Gross output | 000 ha | 450.2 | 2157.0 | 2,607.20 | 17 | 83 |
| Maize | | | | | | |
| Sown area | 000 ha | 75.3 | 481.5 | 556.8 | 14 | 86 |
| Yield | t/ha | 2.71 | 2.04 | 2.13 | 127 ¹⁾ | 96 ¹⁾ |
| Gross output | 000 ha | 203.6 | 980.6 | 1184.2 | 17 | 83 |
| Sweet potato | | | | | | |
| Sown area | 000 ha | 59.4 | 245.2 | 304.6 | 20 | 80 |
| Yield | t/ha | 7.49 | 5.06 | 5.53 | 135 ¹⁾ | 92 ¹⁾ |
| Gross output | 000 ha | 445.2 | 1240.6 | 1,685.80 | 26 | 74 |
| Vegetables | | | | | | |
| Sown area | 000 ha | 76.0 | 252.2 | 328.2 | 23 | 77 |
| Yield | t/ha | 15.8 | 11.7 | 12.6 | 125 ¹⁾ | 93 ¹⁾ |
| Gross output | 000 ha | 1200.4 | 2945.2 | 4145.6 | 29 | 71 |

Note 1) Yields compared with those of the whole country as 100.

Source Statistical Data of Agriculture, Forestry and Fishery, 1985 - 1995.

Table 2 Status of rural infrastructure development as of 1994

(1) Irrigated and drained area

| | Annual Crop Land | | Annual Crop Land Irrigated | | Annual Crop Land Drained | | Total Land |
|----------------------------|------------------|-------|----------------------------|-------|--------------------------|-------|------------|
| | Area ha (a) | a/d % | Area ha (b) | b/a % | Area ha (c) | c/a % | |
| Whole Country | 5,463,999 | 16.5 | 1,998,125 | 36.6 | 1,465,501 | 26.8 | 33,104,218 |
| Red River Delta | 635,678 | 50.5 | 481,194 | 75.7 | 405,794 | 63.8 | 1,258,438 |
| Hanoi | 38,869 | 41.9 | 27,706 | 71.3 | 19,908 | 51.2 | 92,743 |
| Hai Phong | 55,562 | 37.0 | 43,950 | 79.1 | 36,932 | 66.5 | 150,350 |
| Ha Tay | 107,651 | 49.2 | 72,752 | 67.6 | 59,287 | 55.1 | 218,723 |
| Hai Hung | 142,610 | 55.9 | 114,821 | 80.5 | 70,018 | 49.1 | 254,960 |
| Thai Binh | 94,122 | 61.9 | 82,086 | 87.2 | 82,039 | 87.2 | 151,986 |
| Nam Ha | 142,891 | 57.2 | 106,477 | 74.5 | 106,173 | 74.3 | 249,803 |
| Ninh Binh | 54,828 | 39.2 | 33,402 | 60.9 | 31,441 | 57.3 | 139,873 |
| North mountain and Midland | 908,801 | 8.8 | 206,638 | 22.7 | 83,806 | 9.2 | 10,296,763 |
| North Central Coast | 537,531 | 10.5 | 225,701 | 42.0 | 98,715 | 18.4 | 5,118,054 |
| South Central Coast | 464,005 | 10.3 | 140,175 | 30.2 | 35,091 | 7.6 | 4,517,822 |
| Central Highland | 333,006 | 5.9 | 17,833 | 5.4 | 6,598 | 2.0 | 5,618,483 |
| North South East | 494,141 | 21.1 | 54,293 | 11.0 | 26,279 | 5.3 | 2,339,108 |
| Mekong River Delta | 2,090,837 | 52.9 | 372,291 | 17.8 | 809,215 | 38.7 | 3,955,550 |

(2) Rural electrification

| | Number of Communes Having Electricity | | Number of Villages Having Electricity | | Number of Households Having Electricity | |
|----------------------------|---------------------------------------|------------|---------------------------------------|------------|---|------------|
| | Number | % of Total | Number | % of Total | Number | % of Total |
| | Whole Country | 5,309 | 60.4 | 35,718 | 49.6 | 6,098,071 |
| Red River Delta | 1,664 | 98.2 | 11,872 | 96.4 | 2,463,324 | 89.4 |
| Hanoi | 126 | 98.4 | 664 | 96.9 | 216,469 | 95.6 |
| Hai Phong | 151 | 94.4 | 753 | 95.3 | 208,659 | 80.9 |
| Ha Tay | 295 | 97.4 | 1,557 | 94.0 | 430,264 | 93.9 |
| Hai Hung | 394 | 97.8 | 1,908 | 95.7 | 535,264 | 85.8 |
| Thai Binh | 272 | 100.0 | 2,559 | 99.0 | 393,756 | 91.7 |
| Nam Ha | 306 | 100.0 | 3,372 | 98.7 | 530,307 | 90.8 |
| Ninh Binh | 120 | 98.4 | 1,059 | 89.5 | 148,605 | 84.2 |
| North mountain and Midland | 964 | 36.7 | 8,477 | 31.9 | 1,013,068 | 50.3 |
| North Central Coast | 991 | 61.0 | 8,406 | 55.2 | 979,618 | 55.5 |
| South Central Coast | 472 | 57.8 | 1,962 | 45.8 | 537,815 | 46.1 |
| Central Highland | 135 | 29.5 | 549 | 14.3 | 85,618 | 19.8 |
| South Northeast | 323 | 72.6 | 1,401 | 53.5 | 414,764 | 45.1 |
| Mekong River Delta | 760 | 67.3 | 3,051 | 42.8 | 603,864 | 25.0 |

(3) Rural road

| | Number of Communes Having Necessary Means to Center | | Number of Communes Having Motor Roads to Center | |
|----------------------------|---|------------|---|------------|
| | Number | % of Total | Number | % of Total |
| | Whole Country | 8,332 | 94.8 | 7,730 |
| Red River Delta | 1,693 | 99.9 | 1,684 | 99.4 |
| Hanoi | 128 | 100.0 | 127 | 99.2 |
| Hai Phong | 159 | 99.4 | 157 | 98.1 |
| Ha Tay | 303 | 100.0 | 300 | 99.0 |
| Hai Hung | 403 | 100.0 | 400 | 99.3 |
| Thai Binh | 272 | 100.0 | 272 | 100.0 |
| Nam Ha | 306 | 100.0 | 306 | 100.0 |
| Ninh Binh | 122 | 100.0 | 122 | 100.0 |
| North mountain and Midland | 2,297 | 87.5 | 2,137 | 81.4 |
| North Central Coast | 1,596 | 98.3 | 1,514 | 93.2 |
| South Central Coast | 790 | 96.7 | 754 | 92.3 |
| Central Highland | 448 | 98.0 | 439 | 96.1 |
| South Northeast | 445 | 100.0 | 434 | 97.5 |
| Mekong River Delta | 1,063 | 94.1 | 768 | 68.0 |

Source Statistical Data of Agriculture, Forestry and Fishery, 1985-1995

Table 3 Flooded area in Red River Delta Region from 1989 to 1995 (ha)

| Degree | Province | 1989 | 1990 | 1991 ¹⁾ | 1992 | 1993 | 1994 | 1995 ¹⁾ | Average |
|------------------------------------|-----------|--------|--------|--------------------|--------|--------|---------|--------------------|---------|
| Flooded | Hanoi | 0 | 5,500 | 0 | 1,050 | 1,000 | 5,300 | 0 | 1,836 |
| | Ha Tay | 30,000 | 10,000 | 0 | 2,500 | 16,000 | 39,000 | 0 | 13,929 |
| | Nam Ha | 20,000 | 20,700 | 0 | 10,028 | 21,000 | 33,212 | 0 | 14,991 |
| | Ninh Binh | 4,000 | 4,200 | 0 | 1,000 | 6,000 | 9,800 | 0 | 3,571 |
| | Hai Hung | 15,000 | 22,000 | 0 | 16,000 | 8,400 | 48,638 | 0 | 15,720 |
| | Hai Phong | 8,500 | 7,500 | 0 | 6,000 | 4,500 | 14,300 | 0 | 5,829 |
| | Thai Binh | 16,000 | 18,000 | 0 | 11,000 | 10,700 | 26,557 | 0 | 11,751 |
| | RRD total | 93,500 | 87,900 | 0 | 47,578 | 67,600 | 176,807 | 0 | 67,626 |
| Decreased Production ²⁾ | Hanoi | 1,000 | 1,460 | 0 | 600 | 240 | 1,100 | 0 | 629 |
| | Ha Tay | 8,900 | 2,100 | 0 | 0 | 3,700 | 12,700 | 0 | 3,914 |
| | Nam Ha | 5,800 | 6,400 | 0 | 1,600 | 4,560 | 10,000 | 0 | 4,051 |
| | Ninh Binh | 1,400 | 1,200 | 0 | 0 | 1,500 | 2,400 | 0 | 929 |
| | Hai Hung | 800 | 2,100 | 0 | 2,100 | 600 | 14,700 | 0 | 2,900 |
| | Hai Phong | 1,600 | 1,200 | 0 | 2,100 | 1,400 | 3,200 | 0 | 1,357 |
| | Thai Binh | 3,100 | 4,000 | 0 | 0 | 2,050 | 4,500 | 0 | 1,950 |
| | RRD total | 21,600 | 17,000 | 0 | 5800 | 13,810 | 47,500 | 0 | 15,101 |
| Non harvest ²⁾ | Hanoi | 0 | 0 | 0 | 0 | 0 | 150 | 0 | 21 |
| | Ha Tay | 2,000 | 0 | 0 | 0 | 1,400 | 4,000 | 0 | 1,057 |
| | Nam Ha | 1,000 | 850 | 0 | 0 | 400 | 4,000 | 0 | 893 |
| | Ninh Binh | 500 | 670 | 0 | 0 | 400 | 850 | 0 | 346 |
| | Hai Hung | 0 | 0 | 0 | 0 | 0 | 4,800 | 0 | 686 |
| | Hai Phong | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| | Thai Binh | 0 | 500 | 0 | 0 | 0 | 1,100 | 0 | 229 |
| | RRD total | 3,600 | 2,200 | 0 | 0 | 2,200 | 14,750 | 0 | 3,250 |

Notes

1) In 1991 and 1995, flooding area is negligibly small.

2) The terminology of "Decreased production" refers to places where the yield is less than 50 % of the normal one, and "Non harvest" less than 25 %.

Source Ministry of Planning and Investment

Table 4 Irrigated area under water shortage in Red River Delta Region from 1989 to 1995 (ha)

| Cropping Season | Province | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | Average |
|-----------------------------------|-----------|---------|---------|--------|---------|--------|--------|--------|----------------------|
| Winter/Spring paddy ²⁾ | Hanoi | 12,000 | 7,200 | 2,300 | 3,400 | 7,200 | 3,500 | 3,200 | 5,543 |
| | Ha Tay | 20,000 | 22,000 | 8,000 | 10,000 | 12,000 | 13,000 | 14,000 | 14,143 |
| | Nam Ha | 26,500 | 27,000 | 14,000 | 18,000 | 15,000 | 16,000 | 15,000 | 15,600 |
| | Ninh Binh | n.a. | n.a. | 11,000 | 12,000 | 12,600 | 14,000 | 13,000 | 12,520 ¹⁾ |
| | Hai Hung | 36,590 | 21,000 | 18,000 | 20,000 | 19,000 | 25,000 | 21,000 | 22,941 |
| | Hai Phong | 8,960 | 8,000 | 3,000 | 7,500 | 8,200 | 8,100 | 7,800 | 7,366 |
| | Thai Binh | 15,000 | 15,500 | 14,000 | 17,000 | 16,000 | 18,000 | 16,500 | 16,000 |
| | RRD total | 119,050 | 100,700 | 70,300 | 87,900 | 90,000 | 97,600 | 90,500 | 93,721 |
| Summer/autumn paddy ²⁾ | Hanoi | 16,000 | 11,000 | 4,000 | 8,000 | 10,000 | 7,800 | 6,700 | 9,071 |
| | Ha Tay | 10,000 | 19,000 | 11,500 | 12,000 | 12,500 | 12,500 | 8,200 | 12,243 |
| | Nam Ha | 17,000 | 19,000 | 10,000 | 16,000 | 8,000 | 12,300 | 8,000 | 10,860 |
| | Ninh Binh | n.a. | n.a. | 6,000 | 11,500 | 8,000 | 7,200 | 8,000 | 8,140 ¹⁾ |
| | Hai Hung | 31,000 | 29,000 | 26,000 | 32,000 | 30,000 | 34,000 | 30,000 | 30,286 |
| | Hai Phong | 8,500 | 5,200 | 7,600 | 10,000 | 8,600 | 700 | 6,000 | 6,657 |
| | Thai Binh | 17,000 | 21,000 | 18,000 | 30,000 | 21,000 | 25,000 | 24,000 | 22,286 |
| | RRD total | 99,500 | 104,200 | 83,100 | 119,500 | 98,100 | 99,500 | 90,900 | 99,257 |

Notes

1) Figures of Ninh Binh present the average value from 1991 to 1995.

2) Corresponds respectively with "spring paddy" and "winter paddy" in Table 1.

Source Ministry of Planning and Investment.

Table 5 Capital in stock term in rural infrastructure (VDN billion in 1989 constant price)

| Year | Irrigation, Drainage and Flood Control | Rural Roads | Rural Electrification | Rural Infrastructure Total ²⁾ | Others ¹⁾ | Total Agriculture |
|------|--|----------------|--------------------------|--|----------------------|----------------------|
| 1985 | 5,070 | 1,430 | 407 | 6,907 | 4,663 | 11,570 |
| 1986 | 7,630 | 1,540 | 430 | 9,600 | 4,970 | 14,570 |
| 1987 | 12,370 | 1,700 | 500 | 14,570 | 5,370 | 19,940 |
| 1988 | 15,020 | 1,802 | 560 | 17,382 | 6,800 | 24,182 |
| 1989 | 17,850 | 1,854 | 624 | 20,328 | 9,634 | 29,962 |
| 1990 | 19,300 | 1,908 | 721 | 21,929 | 10,360 | 32,289 |
| 1991 | 21,170 | 2,001 | 837 | 24,008 | 12,390 | 36,398 |
| 1992 | 23,760 | 2,070 | 906 | 26,736 | 15,308 | 42,044 |
| 1993 | 25,341 | 2,103 | 940 | 28,384 | 19,370 | 47,754 |
| 1994 | 28,316 | 2,160 | 972 | 31,448 | 21,318 | 52,766 |
| 1995 | 30,219 | 2,271 | 1,002 | 33,492 | 24,360 | 57,852 |

Notes

1) "Others" include those assets of livestock, perennial crops, machinery and other agricultural assets.

2) Total assets of rural infrastructure, such as irrigation, drainage, flood control, rural roads, and rural electrification.

Source Ministry of Planning and Investment

Table 6 Summary of public investment program in rural infrastructure (Trillion VND)

| | State Investment | SOE Investment | | | FDI | Total |
|---|---------------------|---------------------|---------------------------|-------------------------|-------|--------------------|
| | | Total ¹⁾ | In which: State Credit | Household Investment | | |
| General Agriculture | 2.9 | 34.9 | 18.0 | 14.2 | 6.5 | 58.5 |
| Water Management | 14.5 | - | - | - | - | 14.5 |
| Forestry | 4.0 | 4.0 | 3.0 | 5.0 | - | 13.0 |
| Storage | 0.5 | 4.0 | 1.5 | 5.0 | - | 9.5 |
| Total Agriculture | 21.9 | 42.9 | 22.5 | 24.2 | 6.5 | 95.5 |
| Total Investment | 96.8 | 142.4 | 76.9 | 76.5 | 144.3 | 460.0 |
| Agriculture in Total Investment (%) | 22.6 | 30.2 | 29.3 | 31.6 | 4.5 | 20.8 |
| Rural Roads ²⁾ | 2.7 | - | - | 0.8 | n. a. | 3.5 |
| Rural Electrification ³⁾ | 2.5 | - | - | n. a. | n. a. | 2.5 ⁵⁾ |
| Total Rural Infrastructures ⁴⁾ | 20.2 | - | - | n. a. | n. a. | 30.0 ⁵⁾ |
| Rate of Total Rural Infrastructure in Total Investment (%) | 20.9 | - | - | n. a. | n. a. | 6.5 |

Notes

1) Not all amounts are to be included in PIP.

2) Estimated investment for district and commune roads.

3) Estimated on the basis of agriculture share in the total electricity consumption in 2000 (3.7%), by multiplying the total investment requirement.

4) Sum of amounts for water management, storage, rural roads and rural electrification.

5) Excluding non-available figures.

Source Public Investment Program 1996-2000.

6-1

The State of the Art of Rural Finance in Viet Nam

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I. Introduction

After Viet Nam embarked on Doi Moi opening policies in 1986, it has been quick to make the economic reforms necessary for a major overhaul of its economic system and has achieved an extraordinary amount in the process. In agriculture, there has been a sharp increase in total production since the reforms began. During the five year period from 1991 to 1995, agricultural production grew an average of 4.5 percent per year. Food production in 1995 (converted to unhulled rice) was up 25 percent over 1990 (IMF [96]).

Provisions of rural credits have made large contributions to the increase in agricultural production. Doi Moi recognizes the farm as a basic unit of production and has relaxed many of the regulations on farmers to give them incentives to take part in economic activities. However, incentives by themselves were not enough to make production gains possible. Realization of potential technology requires, more than anything else, money. In this, the role of the Viet Nam Bank for Agriculture and other financial institutions, and of the policies by which they are steered, has been instrumental (and will continue to be so).

This paper highlights rural finance in Viet Nam, approaching the issues in Vietnamese rural finance from a variety of directions. The problems, both at macro and micro levels, are examined, and improvement measures are explored.

The experiences of other developing countries with rural finance shows that one-way provisions of funds from the top can at times lead to a deterioration in repayment rates and to failure in developing viable rural financial markets.¹ It is therefore insufficient to judge the results of rural finance merely from the standpoint of contribution to production gains. One must also consider the sustainability of financial markets. As will be discussed in the body of this paper, rural finance in Viet Nam has developed in such a way that credit growth inspires savings growth and maintains high repayment rates. There are at this point no problems that would pose a serious threat to its sustainability. So far the development of rural finance in Viet Nam can therefore be termed a success.² The question here is: what were the factors behind this success? This question is related to questions of Viet Nam's

¹ See Izumida and Yurugi [90].

² However, this is a qualified success in a weak sense since it involves government subsidies. For greater detail, see Izumida [96].

position within Asian rural finance, and to the role of the government in rural development finance. Nonetheless, the story line for this paper as it describes the current state of and problems in rural finance in Viet Nam will be to explore the question of why it has been so successful.

As will be discussed in the following sections, the analysis of this paper is centered on financial activities of the Viet Nam Bank for Agriculture (VBA), a representative of formal financial institutions in rural Viet Nam. The performance of VBA's activities will be evaluated through many indicators, such as growth rates of loan and of mobilized savings, loan/deposits ratios, recovery ratios, levels of outreach and so on. Besides, information gathered from field studies will be examined so that problems of rural finance at village level will be clearly grasped.

Note that we are unable to refer to any extent in this paper to the performance, problems, or measures for improvements, of the activities made by the Viet Nam Bank for the Poor (VBP). This is because the VBP was just established in 1995 (started its business in 1996) to develop anti-poverty programs for rural villages. Nonetheless, the activities of the VBP get right to the heart of the all-important question of how much finance is to relieve poverty, and we wish to comment on them as much as possible in this report.

II . Current State of Rural Finance in Viet Nam

1. Rural Finance before Doi Moi

The pre-Doi Moi rural finance market was composed of the State Agricultural Bank, credit cooperatives, and the informal sector. However, informal finance was suppressed prior to Doi Moi, and did not come to the surface until after the reforms began to be implemented.

The State Agricultural Bank which was at the center of rural finance, was one department of the State Bank of Viet Nam. Its purpose was to supply long- and short-term credits to state enterprises and collectives. Its own funds came from the government budget and from the savings of the general public. The credit cooperatives were the cooperative-type financial institutions. Farmers were required to join both an agricultural cooperative and a credit cooperative. Credit cooperatives depended for their funds almost entirely on the State Agricultural Bank, and the percentage of farmers who were able to obtain these formal bank credits was extremely small. As a result, informal finance played the major role.

The pre-Doi Moi financial system can be regarded as a mono-banking system, a system peculiar to command economies (JICA [95], Watanabe [95], and World Bank [94]). In other words, the State Bank of Viet Nam (SBV) had a monopolistic position that was supplemented by specialist institutions like the Foreign Trade Bank or the Investment and Development Bank. The State Bank of Viet Nam was the only financial institution allowed to supply short-term loans to industrial sectors, while the Investment and Development Bank had authority over infrastructure's funding, and the capital investment funding of state enterprises. These institutions were in turn funded from the central and local government budgets.

The reforms of 1988-1990 brought changes in financial organizations. In 1988, two sections of the State Bank of Viet Nam were split off to form two new state banks: the Industrial and Commercial Bank, which was in charge of lending to urban commercial and industrial activities, and the Agricultural Development Bank, which lent basically to the rural sector. This gave Viet Nam a total of four state-operated financial institutions, including the two special institutions mentioned above. From this time forward, the State Bank of Viet Nam has functioned as the bank of banks, i.e., the

central bank.

In 1990, a new Banking Law has turned the four specialist institutions into state-owned commercial banks, changing their names to the Viet Nam Bank for Industry and Commerce, the Viet Nam Bank for Agriculture, the Viet Nam Bank for Foreign Trade, and the Viet Nam Bank for Investment and Development. All four are universal banks in that they are able to provide both long- and short-term loans and also to engage in securities services. The State Bank of Viet Nam lends to the state commercial banks at a discount rate that is set below market rates. Rates are different depending on the priority of the sectors handled by the bank. Recently, however, special treatment has been afforded only for the Viet Nam Bank for Agriculture (JICA [95]).

One important point should be mentioned here. While, the Viet Nam Bank for Agriculture (VBA) is the most important institution in Vietnamese formal finance for rural areas, it is still, for all its commercial trappings, a state enterprise. This means that the VBA has the functions of a commercial bank, but receives government subsidies for its capital and other requirements and comes under a wide range of government regulations as well. In particular, it is required to contribute to the policies and programs pursued by the government of Viet Nam. Therefore, we must emphasize that the VBA is a commercial bank but at the same time it is a government financial institution.

2. Current State of Rural Finance in Viet Nam

(1) Overview

There are five institutional players in Vietnamese rural finance today: the Viet Nam Bank for Agriculture (VBA)³, the People's Credit Funds (PCFs), the Rural Shareholding Banks (RSBs) as private financial institutions, the Viet Nam Bank for the Poor (VBP), and others. Here, others include special credit programmes of NGOs and donor agencies, and the direct lending of treasury funds through administrative channels. But, entire figures of credit programmes of NGOs and donor agencies, and of direct lending of treasury funds are unknown, and hence can not be grasped clearly. Their share may not be big, then these types of finance are not referred in this report.⁴

Obviously, there are also non-institutional sources of funding like money lenders, distributors, Rotating Savings and Credits Associations (ROSCAs), relatives and friends, and so on. This informal finance plays a large role in Viet Nam. However, there is little data available concerning the weight of informal finance, so we are forced to limit our comments on it.

(2) The Viet Nam Bank for Agriculture (VBA)

The Viet Nam Bank for Agriculture was established in 1988 as a result of reorganization of one department of the SBV. It was initially called the Viet Nam Agricultural Development Bank, but changed its name to the VBA in 1990. The VBA is the largest institutional supplier of credit to the rural sector in Viet Nam, and falls under the oversight of the SBV and the Ministry of Finance. By the end of 1996 it has 760 offices⁵ and a staff in excess of 20,000. Its major business is to provide financial services to individual farmers (and farmers' groups) and rural enterprises. Its financial services have been growing with appreciable speed (the figures to be discussed later). However, most

³ The VBA changed its name in 1997 to the Viet Nam Bank for Agriculture and Rural Development (VIBARD), but we will refer to it as the VBA in this paper as a matter of convenience.

⁴ Concerning credit programmes of NGOs and donor agencies, see Abiad [95]. Also special loan programmes of which source is state budget includes "Regreening the barren hills," and "Job creation."

⁵ These include the head office, provincial offices, regional offices, general business offices, district branches, and transaction offices. The bank also has exchange offices, savings desks, and mobile banks. The VBA's annual report (1995) expresses its total offices as 2,564.

of agricultural loans are short-term production loans; the bank has few medium- or long-term loans. The interest on its loans is in principle the same as that charged by other commercial banks, and there are no subsidized interest programs.⁶ However, its interest rates are far lower than the often exorbitant rates charged by the informal lenders.

Though its growth has been spectacular, neither its lending levels are high enough to meet the latent demand for funds, nor has it been able to attract sufficient levels of savings, though the amount too has been growing rapidly. Even if the bank is flushed with money, it would have many difficulties in lending credits, because of the inherent characteristics of agricultural finance, that is, smallness of farming sizes, low levels of income and asset of farmers, vulnerability of farmers' revenue, and low rate of return on agricultural investment.

(3) People's Credit Funds (PCFs)

The People's Credit Funds are commune-level cooperative finance organizations that have rooted in the agricultural credit cooperatives of the past. But notice there are little organizational continuity between former credit cooperatives and PCFs. The first agricultural credit cooperatives were created in North Viet Nam in 1956. They did not reach the South until 1976. At their peak, there were 7,500 agricultural credit cooperatives in the country, but by 1990 only about 160 were operating. During the process of reorganizing the financial sector, the State Bank of Viet Nam tried to retain the surviving agricultural credit cooperatives as cooperative financial institutions serving the community. The PCFs were established on an experimental basis in July 1993 and were inspired by the credit unions of Quebec, Canada. Their numbers have been growing steadily. By the end of 1996 there were 817 PCFs.

There are actually three levels of PCF. At the central level is the Central Credit Fund (CCF); at the provincial level, the Regional Credit Funds (RCFs). The CCF receives funding assistance from the SBV. The RCFs facilitate funding adjustments by taking funds from those PCFs with surpluses and lending them to PCFs with financial shortages.

One basic requirement for borrowers is that they need to invest in the PCF, but this is not necessarily required of depositors. The majority of PCF loans is short-term working capital for members of the cooperative. Loans are generally about VND2.6 million in size (VND11,000 - US \$1). Of importance is the fact that the PCF strategy is to offer high interest rates on deposits and charge high rates on loans. PCFs pay higher rates on the deposits they collect than do other formal financial institutions, and they also charge more for their lending.⁷ This strategy takes advantage under the situation of the heavy demand for money in rural villages and has apparently been successful. However, the PCFs will probably be forced to reconsider the strategy should the demand for funds ever drop. This will be discussed more fully later in the paper.

We have already noted that the PCFs are cooperative-type financial institutions, and that creates the problem of how to structure the relationship between them and the existing (or future) agricultural cooperatives so as to foster the development of agricultural cooperative finance. This is another point we will discuss later.

⁶ To be more accurate, the interest-rate levels of loans made by the VBA to urban areas are the same as the interest-rate levels charged by other state commercial banks. VBA lending rates do differ according to whether the loan is to a rural or urban customer (see Table 6), with rural rates set higher. Needless to say, we should also note that the VBA does have special subsidized-loan programs to disaster-afflicted regions and minorities.

⁷ As of this writing in March 1997, the PCFs were paying 1.2% monthly interest on term deposits of three months; the VBA, only 0.85%. On the other hand, the VBA charged 1.4% on short-term loans compared to 1.8% for the PCFs.

At the end of 1996 the PCFs had a total of VND663 billion in outstanding loans, which was about 4.8 percent of all agricultural lending by the formal sector (see Table 1). Their membership totaled about 380,000.

(4) Rural Shareholding Banks (RSBs)

The RSBs were also created in the process of reorganizing the rural credit cooperatives. RSBs are private banks, and most of them are located in the south. In 1996, there were 20 of them active. Their funding comes from the investments, deposits, and borrowings of their founding members. A single RSB will normally have between fifty and sixty shareholders who are either related by blood or enjoy similarly close ties.

RSBs pay higher interest rates than does the VBA (generally 0.5-1.0 percent higher). This has not, however, enabled them to attract sufficient amounts of deposits. There is little in the way of direct dealings between the RSBs and the SBV. They are forced to seek the majority of their funding from the VBA or other financial institutions. In fact, many of them serve as little more than service centers for the VBA. Though the figures are a bit dated, at the end of 1994, RSBs had a total of VND40 billion in outstanding loans, which gave them only a very low position within rural finance.

(5) The Viet Nam Bank for the Poor (VBP)

The VBP was founded in 1995 and began operations in 1996. Like the VBA, it is a state bank which accepts deposits. Where it differs is that it lends funds to the poor at subsidized rates. Applicants must meet special standards to qualify for lending.⁸ The VBP's materials explain that its lending is for the poor who meet criteria set by the government, but in actual practice the Poverty Reduction Committees at the village level draw up lists of candidates that are approved by the community's Peoples Committee before being sent to the local VBP office for a final decision on lending. The bank is funded by borrowings from the State Bank of Viet Nam (monthly rate of 0.9 percent) and by gratis funds from the government. Households that have borrowed from the VBP are in principle prohibited from borrowing money from other institutions.

Several points are worth noting. First is the influence of Bangladesh's Grameen Bank. Borrowers are given unsecured loans, but they are organized into groups that have joint liability for the borrowings of their members. This is the same technique as used by the Grameen Bank. However, Viet Nam's rural villages have a tradition of mutual aid, and many voluntary organizations already provide financial assistance to poor households, so this is not a case of injecting something completely unknown into the system.

Second are the close ties between the VBP and the VBA. Most of the VBP staff comes from the VBA, and their offices are usually in the same building as the VBA or an adjoining building. Indeed, the VBA already had its own lending programs for the poor under which it would, for example, provide unsecured loans of up to VND 500,000 (in place of collateral, borrowers had to produce a certificate from the People's Committee). The unsecured lending ceilings were subsequently hiked (to

⁸ The definition of the poverty line used in the 1993 VLSS is the same as that of the World Bank: the income level needed to achieve the standard consumption patterns of a Vietnamese requiring 2,100 kcal a day in nutrition. Under this definition, about half the population of Viet Nam falls below the poverty line. There is also a smaller category of poverty called the food-poor, which is defined as those who would not be able to achieve an intake of 2,100 kcal a day even if all of their income were used to cover food costs (an average annual rural income is about VND600,000. If an unhulled rice price is VND2,000/kg, per capita rural consumption would be 25 kg a month in unhulled rice terms). Under this narrower definition, about 1/5 of the population is considered poor. The official Vietnamese definition of poverty is closer to this definition (JICA [95], IMF [96]).

VND 1 million), but the amount of funding available was usually insufficient and only a very limited amount of credit made it to the poorest farmers. The VBP was established as a means of separating low-interest lending to the poor from other VBA lending, and also perhaps as a means of more effectively utilizing surplus VBA staff. Regardless, the VBA and VBP are sister institutions and a discussion about one will necessarily involve a discussion about the other.

Third is the fact that the VBP lends at below-market interest rates (in August 1996, the VBP was charging a monthly rate of 1.2 percent compared to 1.6 percent at other banks).

Fourth is the involvement of the People's Committees of village levels in the selection of borrowers. The VBP makes loans according to lists of poor households submitted to it by the People's Committees, which gives the committees a large amount of sway in lending decisions. Also involved in VBP lending are the farmer associations and women's unions. In addition to candidates' selection, these organizations also play major roles in monitoring borrowers and recovering funds.

VBP lending is about VND1.2 million per household. At the end of 1996 it had a total of VND1,650 billion in outstanding loans to about 1.4 million households. This represents about 55 percent of Viet Nam's poor households. Note that the VBP balance of VND1,650 billion is equivalent to about 11 percent of total outstanding lending to Vietnamese rural villages by formal financial institutions.

3. Informal Finance

There is very little information on informal finance in Viet Nam. From what is available, however, it appears that informal finance plays an extremely large role in the country's rural economy. The Viet Nam Living Standard Survey (VLSS) found that 73 percent of total borrowings by rural households were from informal sources. Of this figure, 33 percent was from money lenders, the remaining 40 percent from relatives and friends. Borrowings from the ROSCAs, a unique Vietnamese institution, were also large. The VLSS has found a wide disparity in interest rates on the informal financial market. Most loans from relatives and friends carried no interest at all, while short-term funds from money lenders might carry rates of 6-10 percent a month, which was double and triple the rates charged by formal institutions.

The main sources of informal financing included the ROSCAs (Phuong ho, Hui or Tontine), private lenders, advances by distributors, and family and friends.

As a result, we must consider rural finance in Viet Nam as a dual structure in which formal and informal finance exist side by side. The implications of this are large. For example, in interviews with rural village residents we asked them what they would do if they had US \$100 in surplus funds. Some responded that they would lend the money to their friends and acquaintances. This implies that, surplus funds do not necessarily end up in deposit accounts with formal financial institutions. It must be understood that in Vietnamese rural villages, financial situation will to a large part be determined by the interaction of the formal and informal sectors.

III. The Development of Rural Finance in Viet Nam

1. The Expansion of Credit and the Level of Outreach

According to our survey of the current situation in Vietnamese rural finance, which has mainly concentrated on formal institutions, it seems an obvious conclusion that, aside from the informal sector, the Viet Nam Bank for Agriculture (VBA) is the dominant and leading institution. The share

of VBA in total outstanding loans in rural sector was more than 80 percent (Table 1).

In this section we concentrate on the activities of the VBA to illustrate recent trends in Vietnamese rural finance. We will also comment on other institutions where there is data available. It is evident that the scale of their lending is so minuscule compared to that of the VBA, that from a quantitative perspective they have little significance. The activities of the VBP are also interesting, but this institution only began operations in 1996 and it will be premature to evaluate its lending achievements. While we acknowledge that there are important problems that hinder the VBP's activities, the problems can not be fully analyzed here.

VBA lending growth, as expressed by year-end balances, has been extraordinary (Table 2). For example, outstanding loans were 57 percent higher at the end of 1995 than those at the end of 1994. Even when viewed in real figures that discount the inflation rate (about 11.4 percent in the first half of 1995 but only 1.2 percent in the second half), the growth is still impressive. It is safe to say that VBA lending activities have developed in an extremely short period of time. However, the majority of its loans are also short-term, and there are problems inherent in this. Indeed, about 70 percent of 1995 lending was short-term loans. This does not imply that the VBA engages in no medium- or long-term lending; such lending accounts for the remaining 30 percent of its lending business and it is in fact growing faster than short-term lending.

There are three reasons why medium- and long-term lending is smaller than short-term. First, at the current stage of development, most of the demand for funding of the Vietnamese farms is for current inputs like fertilizer and pesticide. However, the demand for medium- and long-term loans is expected to rise in the future as agriculture becomes more diversified and partially mechanized. There are gaps in the levels of mechanization achieved in different areas of the country. In the Mekong Delta, for example, small tractors are in use, while in other areas it is not. Still, given the large surplus population on Vietnamese farms, a full mechanization of the country's agriculture is as yet inconceivable. That does not, however, preclude a rise in the demand for medium- and long-term loans, some of which will be for small machinery. Second, Vietnamese farmers have little in the way of assets with which to collateralize medium- and long-term loans. Progress in issuing certificates of land-use rights has been slow. Till now the certificates have not been issued to all farmers. This poses a serious problem for the future development of rural finance. Third, deposits are biased towards the short term, rendering it difficult for financial institutions to secure the long-term funds they need to make long-term loans.

VBA lending is increasingly allocated to on farmers. When it was established in 1990 the bank engaged in almost no direct lending to individual farmers, choosing instead to lend to state enterprises and cooperatives, but in recent years some 60-70 percent of its lending has been to farming households.

Turning to the level of outreach, we should first note that more detailed data will be required before this index can be calculated with any precision, but judging from the number of farm borrowers at the end of 1996, it appears to be about 40 percent.⁹ The number of farm borrowers is increasing steadily, from 960,000 in 1991 to 2.03 million in 1993, and this indicates a greater level of outreach to farm households. Obviously, VBA loans only go to comparatively well-off farmers. Indeed, the poor and those in remote areas have no access to VBA credit. The turnover rate for short-term funds is 1.8-1.9 times per year, so annual lending amounts can be considered as about double year-end figures.

The average size of loans to farmers falls within the range of US \$100-200. Much of the loans,

⁹ The concept of level of outreach is defined as what percentage of those desiring loans are actually given them. In 1994, Viet Nam had a total of 9.6 million farm families.

however, is only about US \$50, an indication of the micro level of the borrowings involved. According to a resident of one village, when a flood destroyed all his crop, his loaned amount could be repaid by the sale of one pig.¹⁰

The most recent data available on the use of VBA loans is that of 1993 and so somewhat dated. It shows that 45 percent went to crops, 20 percent to livestock, 20 percent to fruit and fishing, and the remaining 15 percent to handicrafts or small-scale processing (World Bank [94]). The reason for the relatively low weight of crops is that lending has tended to concentrate on livestock because it is a growth sector. This indicates that VBA lending is contributing to the diversification of agriculture. Ostensibly, the VBA's lending ceilings are 50 percent of the borrowers assets or 100 percent of his expected income. In actual practice, short-term loans are limited to 70 percent of the required amount; medium-term funds to 50 percent.

2. Mobilization of Savings

On the fund-raising side, there has been surprisingly strong growth in deposits in recent years (Table 3). Total deposits in 1995 were double those at the end of 1994, and among them the growth of term deposits was particularly strong. Some 50-60 percent of the banks fund-raising during 1995 took the form of deposits from the general public. However, most of the deposits are short-term (three to six month) accounts. Nonetheless, the deposit growth has reduced the VBA's dependence on borrowings from the SBV (at the time of its establishment in 1990, SBV borrowings accounted for nearly 40 percent of total funds raised), which is improving both the independence and the financial health of the VBA. We should point out, however, that the SBV still accounts for about 6 percent of the banks' total liabilities. The reasons for the high rate of deposit growth will be discussed later in this paper.

3. Loan Recovery Performance

Overall, the loan recovery rate is good. Our interviews with VBA's experts indicate that about 98 percent of the short-term funds lent to farmers are recovered. According to the 1994 annual report, the bank was carrying VND1,000 billion in frozen debt against VND10,752 billion in outstanding loans at the end of the year (ratio of 9.3 percent). It reports an overdue rate of only 2.1 percent for production units and 1.4 percent for commercial households. The 1995 annual report noted a deterioration in the quality of the banks credits, and bad debts rose from 2.1 percent in 1994 to 3.4 percent in 1995. Recovery rates were the worst for funds lent via cooperatives, where there was an overdue rate of 25 percent. In spite of this, if the VBA's total overdue rate is only around 5 percent, then it is performing extremely well compared to similar agricultural finance institutions in Asia.¹¹

Table 4 provides data on the VBA's business standing. Interest revenues are rising steadily in

¹⁰ Interview with farmers in a rural village in the Red River Delta.

¹¹ See Izumida and Yurugi [90]. Note also that data acquired by the Fiscal and Monetary Policy Team indicates that the VBA is experiencing a high rate of arrears. Its overdue loan ratio (overdue loans divided by outstanding loans) was 14.3% in 1994, 13.9% in 1995, and 16.6% in 1996 (year-end figures). These figures are quite different from those in the VBA's annual report and if they are indeed correct, we will be forced to modify our viewpoint on the VBA's performance. For a consideration of the implications of these figures the reader is referred to the independent auditors report on VBA finances prepared by Coopers and Lybrand in Sydney. The auditor's report lists 8.7% of the VBA's total assets as of the end of 1994 as frozen debt, but this is posted to a different account than that for lending. It also gives a ratio of overdue loans to total net loans of only 3.6% as of the end of the year. The figures from this report argue for the Fiscal and Monetary Policy Teams data to be interpreted as including the banks frozen debt.

reflection of lending growth. In 1995 the bank posted after-tax profits of VND 48 billion.

4. Efficiency of Financial Intermediation

The data on the balance sheet and profit and loss statement enable simple calculations to be done of the average costs of VBA financial intermediation. The interest revenues from loans can be divided by the average balance of total operating assets to calculate a rough average yield on investments (which will be almost the same as the lending interest rate).¹² For 1995 this was 18.87 percent. On the other hand, the cost of funds (interest paid) was 13.1 percent, to which must be added 4.9 percent for employee salaries and other expenses. The result, when cost rates are subtracted from revenue rates is a slight surplus of 0.8 percent. Note, however, that the intermediation cost rate of almost 5 percent is high by international standards, an indication that there is certainly room for the VBA to improve its efficiency.

Similar calculations for the PCFs has found that the yield on investments is 25 percent, fund-raising costs (interest payments only) 14.2 percent, intermediation expenses 5.0 percent and surplus 5.8 percent. These figures confirm the PCF strategy of attracting deposits with high interest rates and lending funds at relatively higher rates as well. Note the much larger profit margin, however. Even still, in light of the fact that the PCFs are new institutions that have none of the overstaffing problems of the VBA, intermediation costs which are more or less on par with the VBA's, are hard to accept, and the PCFs can hardly be termed efficient mediators. Obviously, this data only covers a single year and similar analyses will need to be repeated in the future, but the numbers do indicate that the PCFs have been unable to take advantage of the low intermediation costs that are supposed to be the chief benefit of cooperative finance.

The figures for the VBA's yield on investments and fund-raising costs are congruent to its interest-rate structure, though the data is not up to date (see Table 5). Farmers borrowing short-term loans for production paid a monthly interest rate of 1.8 percent at the end of 1993. However, group borrowers could take out loans at lower rates, and it appears that in some cases slightly different interest rates were applied at the grass-roots level from what are indicated in this table. As the World Bank [94] indicates, there are two problems with the interest rate structure shown in the table: 1) there is no reflection of the different risks associated with different borrowers; and 2) medium- and long-term interest rates are lower than short-term interest rates. Lending at the medium- and long-term rates shown in the table would be less than the interest paid on term deposits, so the bank would have a negative spread. The interest rate structure reflects the perspective of the government of Viet Nam that medium- and long-term investment is more desirable than short-term, but may actually be one of the factors that is suppressing the growth of medium- and long-term lending. We must also point out that with the reduction in the inflation rate in 1996 the loan interest rate ceiling was lowered several times, which resolved the reversal between the rates charged on medium- and long-term loans versus short-term loans. As of October 1996 (Table 6), the interest rate on loans for fixed capital was 1.35 percent per month, compared with 1.25 percent for operating funds.¹³

One of the VBA's business strategies is to improve its intermediation efficiency with labor productivity gains. Its work force has declined from 31,232 in 1990 to 21,000 in December 1995. This was part of a general restructuring of state enterprises, but the declines are extremely large. Current downsizing plans call for the size of its staff to be cut in half by 2000 (to about 10,000 people), which is, obviously, a very drastic cut. Better training, meanwhile, is helping to improve the quality of the

¹² The significance of this figure will be different if the portion in arrears or default is larger.

¹³ See IMF [96], p. 87. See also Table 6 in this paper.

banks remaining staff.

Of interest is the introduction of an incentive system in the VBA's labor management policies. A large portion of the employees paycheck is determined from the number of loans he makes, his default rate, and other personal performance indicators than from his basic pay.¹⁴

5. Problems on Rural Finance -Observation from Field Studies-

(1) Regional Diversity in Rural Finance

The VBA's performance at national level can be evaluated as a success. Indeed it is a rare financial institution that is able to grow this much in such a short of time and still maintain good recovery rates. Judging from the past few years alone, lending growth, deposit growth, and recovery rates are all at levels that were considered satisfactory, and there were no serious problems in the banks balances. Though there are problems such as unsatisfactory level of outreach, the shortage of medium- and long-term funds, and the inefficiency of intermediation, few government agricultural financial institutions in Asia or in the world can lay claim to having achieved so much in the short space of six years.

However, if we look at rural finance at village level, there are several important problems on rural finance. Here, we will discuss three problems of rural finance in Viet Nam, by using the results of field studies.

First, regional diversity in rural finance should be referred. Table 7 indicates the situation of rural finance in three surveyed provinces, showing the big difference in the degree of infiltration of formal finance. Ratio of the number of total household with borrowing experience of VBA loans, to that of total rural households, was as high as 83 percent in An Giang province. On the other hand, the ratios for Ninh Binh and Quang Ngai provinces were just 25 and 8 percent, respectively. Concerning the degree of outreach of VBP loans, the ratio of Ninh Binh, Quang Ngai and An Giang were 18.4, 8.3, and 13.6 percent, respectively. The difference in the degree of outreach is not so serious, compared with the case of VBA loan. Hence VBP loans are disbursed in order to amend the difference in the infiltration of VBA loans. With respect to the activities of PCFs, An Giang province surpasses the other two provinces.

Regional diversity was also observed from the result of our rural household surveys (Joint Survey Report, Table 9). In conducting household surveys, three provinces were selected, and two communes in each province were chosen. For each commune, a representative hamlet to the respective commune was selected. After that, 50 rural households were selected randomly in each hamlet. Accordingly, the number of rural households surveyed in each province was 100, indicating the actual number of due household as percentage.

According to the result of our rural household survey, the number of households with VBA loans was 23, 2, 65, in each province from the north. The number of households with VBP loans was 8, 39, 9 in each province respectively. The ratio of the number of VBP loanee to that of total household in surveyed areas was bigger than the ratio of respective province (Table 7). This is because we selected areas where the financial activities are relatively active. In our household survey, the ratio of VBP loanee in Quang Ngai province was the highest. The number of household benefited from PCFs loans was quite small, only 3 households in Ninh Binh province.

Then, what are the factors for regional diversity in Vietnamese rural finance? One factor is the difference in the level of economic activity. From our field studies, we can obtain average annual amount of agricultural production for the household in each province. The amount is 7.2, 3.7, and

¹⁴ This information from interviews at the VBA head office.

26.0 million dong from the north, suggesting big difference in the level of economic activities. The difference in the level of agricultural production suggests the difference in household income, and the difference comes basically from the condition of agricultural resources, of each region. The average farming size of surveyed households in Ninh Binh, Quang Ngai, and An Giang, was 0.29, 0.26, and 2.0 hectare, respectively (Table 1, Joint Survey Report). As the figures show, the level of agricultural resources in each region is quite different. This difference in resource endowment creates diversified level of agricultural activities, bringing the big difference in the level of credit need.

Of course, there must be some factors in the supply side of credit. However, if limited amount of institutional credits is the main reason for the diversity, then this would make the number of household using informal finance bigger. But our surveys show that the number of household using informal finance is the smallest in the central, and the biggest in the south. Hence, it can be safely said that the most basic factor for the regional diversity lies in the demand side.

With respect to the difference in financial infrastructure, one thing should be mentioned. There is a big regional diversity in the degree of issuance of land use certificates. As of March 1995, land use certificates were delivered widely to the farmers in the south, but not so much in the north and central region. According to our field studies, the certificates were issued to almost all the farmers in An Giang province, while in the other two provinces, they were delivered only partly. The difference in the kind of financial infrastructure has created the above-mentioned regional difference in the structure of rural finance.

(2) Insufficiency of Savings Mobilization

A second point that should be referred to is the insufficiency of savings mobilization by formal financial institutions. The survey indicates that the number of household with deposit account was 3, 0, 27, respectively from the north. In other words, only thirty households in total of three hundred had deposit accounts. Consider that the number of household with formal credit was 30, 41, 73, respectively from the north, the households with deposit account of surveyed areas was extraordinary small in number.

The insufficiency of savings absorption by formal financial institutions at village level is in contrast with the successful development of saving mobilization of VBA at the national level. At the national level, the amount of mobilized savings grew quite rapidly. But most savings were mobilized in urban areas, not in rural areas. This phenomenon implies that money is flowing from urban to rural areas.¹⁵

The unsatisfactory performance of rural savings mobilization by formal institutions means that the quality of financial services provided by the VBA and other formal institutions are unsatisfactory. The VBA does not provide the convenience to depositors like ATM facilities. The number of VBA offices including sub-district branches and savings desks, are still not enough in the rural areas.

The biggest problem on VBA's savings mobilization is that there is little incentive for VBA to absorb savings from rural savers. For the VBA, savings are not profit making propositions. Smallness of deposit is less attractive, and costly for the bank. According to our interview with one local staff of VBA, it is prohibited that field staff take deposits and repayment money at farmers' houses except in special cases. Consequently, farmers have to visit the bank offices to deposit money. This regulation causes inconvenience to farmers. Anyway, it seems to us that VBA does not make every effort to collect deposits in rural areas.

Concerning the bank's incentive to collect deposits, one thing should be added. As already

¹⁵ In our study of the Mekong Delta we found that an RSB in An Giang Province had been able to produce a twenty-fold increase in its lending by shifting its focus from the cities to the rural villages. In this case, the funding for loans came from commercial banks in Ho Chi Minh City.

mentioned, informal finance still occupies considerable share in Vietnamese financial market. Formal and informal finance coexist side by side. Under this dual structure of financial market, farmers with surplus money can lend their money to neighbors for higher interest rate. Thus, dual characteristics of Vietnamese financial market hinders the formal financial institutions from absorbing deposits successfully.

(3) Distributional Bias of Credit Allocation

A third point is that credit allocation is biased in favor of households of responsible position in villages. Table 8 shows the distribution of the number of households with formal loans by the existence of social status. It is apparent from this table that HRPs (households of responsible position) have higher share in VBA loans in every province. Concerning VBP loans, the difference in the share between HRPs and non-HRPs is not so big in Ninh Binh and An Giang province, but in Quang Ngai, the bias of the credit allocation to HRPs was clearly observed.

Of course, it is too hasty to conclude that people of responsible position are using their power to allocate formal credits favorably to them. Since financial institutions usually regard people of high social position as more creditworthy, it is not unusual that their shares in credit use become higher. In addition, there is certain correlation between social position and economic status. In the sense, it is not queer that credits are allocated more to those households who are in responsible positions. Anyway, how credits are allocated to households under the situation of limited supply is an important topic on development finance. Further research including the application of econometric methods should be conducted.

Concerning the allocation of credit, another point should be added. As already explained, the number of household with VBP loans was the highest in Quang Ngai among three surveyed provinces. The problem is that the size of VBP loan for each borrower was almost the same. In one hamlet of Quang Ngai, there were 27 households benefited from VBP loans, and out of that, 25 households had the same loan size of 1.45 million VND. In another hamlet of same province, the loan size of all households borrowing VBP loans was identical. On the other hand, the size of VBP loan ranged from 0.2 to 2.5 million VND in the other two provinces.

If we examine the distribution of the number of VBP loanee in Quang Ngai with the amount of total agricultural production, we have the following: 6 out of 34 households with total agricultural production less than 2.0 million VND; 16 out of 40 households with total agricultural production 2.0 - 5.0 million VND; 17 out of 26 households with total agricultural production more than 5.0 million VND. Thus, in Quang Ngai, VBP loans were not always disbursed to poor households. On the contrary, relatively well-off households enjoyed VBP loans.

From this observation, it is evident that in Quang Ngai province VBP loans were allocated to relatively well-off households uniformly (of course they are defined as poor officially) as a kind of dole from the State. Of course, even in the case of VBP loans whose aim is to alleviate poverty, borrowers have to pay back interests and the principal. If the capacity of repayment is considered, then, the poorest can not borrow VBP loans. But even if the poorest households are excluded, there are still many "poor" households willing to take the institutional loans. In Quang Ngai, even if an agricultural household has annual agricultural production of 5 million VND, it would be classified as "poor" (see the note 8). And the amount of VBP loans is limited. In such a situation, other criteria like social status and so on, should be applied. Here credits are allocated uniformly to selected well-off households without considering the credit needs of each household. Anyway, repeatedly, the VBP lending has just started in 1996, and hasty conclusion should be avoided. Much should be done for the research, especially about how loans for the poor are allocated.

IV. Factors for the Development of Rural Finance in Viet Nam

1. Strong Demand in Vietnamese Rural Villages

We can summarise the excellent performance of the VBA as follows.

First, the demand for funding in Vietnamese rural villages has been very strong. We discussed the surge in agricultural production since Doi Moi in our Phase I report.¹⁶ The implications of the rapid growth in Vietnamese agriculture since 1990 are that there were many highly profitable investment opportunities in Viet Nam at that time that could have been used but were not because of lack of funding or due to other factors. Therefore, as public credit became available, the farmers of Viet Nam jumped at it even though it carried the high costs of 20% per annum interest rates. The strong demand for funds is the first point in the performance of agricultural finance institutions. To add a bit here, it is important to note that Viet Nam is an agrarian society and that the vitality of that society was not entirely suffocated under the state-led command economy.¹⁷

2. Finance Supported by Local Administrative Organizations and Indigenous Groups

The second point to be clarified is that VBA loans enjoy the full support of political and administrative organizations as well as that of the indigenous village groups. This is embodied in the group lending technique. Group lending can take two forms: joint liability groups (JLGs) in which all members undertake an obligation to repay each others debts, and lending directly to groups (women's unions, farmers' associations, veteran farmers' associations). Note that in the latter case group members are not liable for the debts of other members.¹⁸ As an example of the latter, a farmers' association might organize a group of about twenty people and, with the agreement of all members, the group leader will submit a loan application and serve as the banks agent in collecting interest and the like. While this does not involve joint liability, it does provide for joint monitoring functions.¹⁹ Women's unions and farmer's associations, the mass organizations already in place within villages, are generally involved in these groups and they require the approval of the People's Committee. This is the equivalent to the group being acknowledged as credible within the village as well as by political and administrative organizations, which relieves the lender from having to investigate the creditworthiness of individual borrowers within the group. It also helps reduce transaction costs, since there are great reductions in the amount of work to be done in creating documents and collecting repayment.

We would draw attention to case in which collateral is required for VBA lending (though the situation is much the same for PCFs and RSBs as well). In An Giang province, where certificates of land use had been delivered to almost all farmers, most of VBA loans were secured by land use certificates as collateral. But collateral based lending in An Giang are usually complemented by groups. In our interview with a local VBA staff of An Giang, 53 percent of VBA loans were disbursed through groups.

In case of VBP loan lending, it is needless to say that political and administrative organizations as well as mass organizations are strongly involved. Farmer's eligibility for VBP loans is determined at

¹⁶ Growth averaged 5.6% per year between 1991 and 1995. See JICA and MPI [96].

¹⁷ See Yoshida [96], p. 53.

¹⁸ See World Bank [94].

¹⁹ When the group leader takes charge of creating the documents, collecting interest, and making the trips to the VBA office to deliver them, it is common for him to be paid a fee or commission.

the meeting of mass organization under supervision of local people's committee, and after that JLGs are formulated. Of course, the VBP lends to relatively poorer people so that a considerable proportion of its lending is through JLGs, not on the base of collateral. Even here, indigenous organizations and Peoples Committees play a large role in VBP lending, which makes repayment more compulsory.

Moving back to VBA lending, we were informed that not all farmers are able to participate in groups, indeed a considerable percentage are not. This is a point that must be confirmed from rural village survey data. There are also cases in which houses are mortgaged as a condition for group participation. Regardless, there is a selection process that takes place among farmers and within villages, and it is this selection and the way in which risks are borne that have supported the growth and recovery rates for VBA microfinance

Group lending appears to be particularly suited to the mutual aid traditions and behavior patterns of rural Vietnamese villages (especially in the north). However, this is a point that requires verification in more detailed research.²⁰

3. Successful Macroeconomic Policy

A third factor is the change that has been observed in recent years in Vietnamese savings patterns. As can be seen from the VBA's fund-raising, deposits began to grow rapidly around 1994. The deposit growth rate in 1994 was 44%, and for 1995, 107%. This explosive growth in bank deposits is not limited to the VBA. Many commercial banks are experiencing similar phenomena.

We see three main reasons for this surge in deposits: 1) the fall in the inflation rate has restored confidence in the Viet Nam dong (the inflation rate for the first six months of 1996 was only 3.3%); 2) there are economic benefits to deposits (deposit interest rates are fairly high); and 3) foreign exchange rates are stable. The biggest factor, however, is probably the restoration of the confidence of the Vietnamese public in the Vietnamese financial system. The gold and dollars that had previously been hoarded are gradually being shifted to dong deposits.

4. International Environment

The fourth factor, is the fact that Viet Nam has been able to use the experiences of other Asian countries in creating appropriate financial organizations and providing financial services. Group lending is a commonly used technique in Asian agricultural finance, along with passbooks and mobile banks. Viet Nam has been able to learn these techniques from the World Bank, IMF, other aid organizations, and also from regional organizations like the Asia Pacific Rural and Agricultural Credit Association (APRACA).

V. Conclusions: the Issues Facing Rural Finance in Viet Nam

Certainly the development of Vietnamese rural finance up to now can be considered a success. It has fulfilled four of the basic criteria for success: expansion in credit, expansion in deposits,

²⁰ We must also point out that joint liability in village groups does not always produce good recovery performance. For example, selda (farmer groups) in the Philippines Masagana Program had actually caused repayment rates to deteriorate. This is because when a selda member does not repay a debt, even the other members with the ability to repay choose to quit repaying. Instead of serving to encourage the repayment of debts, the selda's joint liability arrangement actually encourages default. (Takigawa [87], p. 52). The decisive differences in whether the group lending will produce peer monitoring seem to be production levels, production stability, and also how much of a community bond the villages enjoy.

expansion in level of outreach, and satisfactory recovery rates. It is also well on the road to being profitable from a business standpoint, and its dependency on the central bank is decreasing.

Of importance is the fact that at the center of Vietnamese rural financial development is the VBA, which is a government institution. Indeed, the VBA is an institution much in the mold of Thailand's BAAC. It has been able to use a national network and focus its resources on training employees and accumulating and using new financial technologies. Like BAAC, it has expanded its lending by offering small, high-risk loans to farmers. Where it differs from the BAAC is that the BAAC lends to farmers at subsidized interest rates (a bit lower than market rates). It receives constant subsidies from the government. The VBA does not in principle make subsidized loans and government subsidies are declining. The VBA also enjoys a large ratio of deposits to total fund-raising than the BAAC, so it can lay claim to greater independence.

However, the development of VBA lending has come about with the strong involvement of the Peoples Committees and other political and administrative organizations, and also women's unions, farmers associations and similar mass organizations. Vietnamese villages have, in effect, rallied around the institution to support it, and these political, administrative, and mass organizations also have a large sway over its operations. Among the problems VBA is facing are: insufficient funds, particularly for medium- and long-term lending, high transaction costs for borrowers; and high intermediation costs. We recommend the following improvements in these areas.

First, the basic way to deal with the funding shortage is to attract more savings. So far the VBA has placed priority on lending among its financial services, but we think it should upgrade deposit-taking as another major priority. For example, at the grass-roots level, the VBA staff usually does not go out and collect deposits directly but merely waits in the office for depositors to come in. This needs to be improved. The bank also needs innovative incentives to attract deposits such as deposit-linked lending or savings campaigns.

The lack of medium- and long-term loans calls for greater efforts to attract longer-term deposits, as well as far improvements in the assignment of land-use rights certificates and enhancements in collateral systems.

Second, to bring greater efficiency to its operations, the bank must continue to streamline its staffing in an appropriate manner, as well as to invest in education and training of its employees. Computerization is also desirable, but full computerization is not particularly needed in Vietnamese rural villages where there is already a huge surplus of labor. It might be effective to use the Micro Banker software developed by the FAO and APRACA since it is available at low cost. We recommend considering its introduction.

Third, from a general perspective, the bank also needs to expand its office network. For remote areas, it could increase the number of mobile banks in its fleet. An important future challenge in the VBA's financial services will be to bring in marketing loans and loans linked to technology instruction (supervised credits) like those used by Thailand's BAAC.

It would not be mischaracterizing the development of Vietnamese rural finance so far to say that it has come from the top or been policy-oriented. Government subsidies made up part of the VBA's initial capital, borrowings from the SBV accounted for a fairly large share of its fund-raising in early years, and the VBA is a government institution charged with providing credits to rural communities. This is similar to the rural finance development pattern seen in the seventies and eighties, but we would point out that most Asian countries are now suffering from falling repayment rates.

At the risk of repetition, the VBA does not provide subsidized loans to farmers. Interest rates are basically on a par with other commercial banks and it does not assign favorable rates to specific client. This may be important from the viewpoint of a development strategy stressing financial sustainability.

On the other hand, the performance of VBP, which supplies cheap loans for the targetted people, should be carefully scrutinized especially when considering aspects of sustainability, and in reference to periodic review of the levels of loan recovery.

Nonetheless, any agricultural finance institution that has grown this much in just six years deserves special praise. As we have mentioned before, Viet Nam has been able to use late comers' advantages since there has already been a great deal of knowledge and expertise in the creation of financial institutions accumulated by the international community. It has further benefited from the assistance and guidance of international institutions. This is not in any way to denigrate Viet Nam's capacity for absorbing and internalizing the techniques that have been accumulated by its neighbors. Much of its success must be attributed to the high educational attainments of the Vietnamese people and the latent energy that had been accumulating within Viet Nam for the establishment of financial systems.

Finally, we would like to consider the issue of cooperative finance in Vietnamese rural villages. As we have seen, the VBA-led development of rural finance means that over the last decade the cooperatives (former agricultural cooperatives) created in villages around Viet Nam have not played a large role in rural finance. This is the biggest issue in the future of Vietnamese rural finance because, as the mutual aid customs of Vietnamese villages (particularly in the north) illustrate, Vietnamese cooperatives have enormous potential, the realization of which would be certain to bring large economic benefits to rural villagers. Also, it is not desirable that the VBA, a government financial institution, enjoy a monopoly over rural finance. Competition is required, and that means developing competitive organizations. The experience of most Asian countries is that the role of private commercial banks in rural finance is at best limited, and that leaves the cooperative finance as the only private-sector alternative to government finance.

We must therefore consider what kinds of cooperative finance are possible in Viet Nam's rural villages. From a very general perspective, the multi-purpose agricultural cooperatives seen in many parts of East Asia come to mind. Based on local ties, these cooperatives organize almost all of the farmers in a district while undertaking many other businesses as well. They are therefore able to enjoy economies of scope. Certainly the multi-purpose agricultural cooperatives come closest to achieving the ideal of cooperatives in which small family farmers dominate and rural villages with traditions of mutual aid are given primacy. Finance would be one of the services offered by such cooperatives.

However, it may be inappropriate to introduce idealized agricultural cooperatives for today's Viet Nam, which has no such organizations to draw on. Viet Nam is operating under its own historical and developmental constraints, specifically: 1) the poor image that farmers have from the days of old agricultural cooperatives, 2) the issue of old agricultural cooperatives liabilities which is still serious in some regions, 3) the existence of cooperative financial institutions (the PCFs) that have had some success, 4) the fact that even the PCFs have not been able to fully function as cooperative institutions, and 5) the fact that over the medium- and long-term the demand for funds in rural villages will be in decline while that in non-agricultural sectors will be on the rise. Future Vietnamese rural financial systems must take full account of these constraints.

We do not have any decisive strategy that promises to be the best option for cooperative finance in rural Viet Nam. Rather, we would like to describe three options and the results that can be expected from them.

The first option is to continue with the current system unmodified. Rural finance will be led by two government institutions: the VBA and VBP, with the PCFs serving as cooperative institutions that supplement the activities of the government. The PCF would be responsible only for lending; other businesses would be the responsibility of newly created agricultural cooperatives. Both cooperatives and PCFs would basically be voluntary organizations created by rural residents themselves. There

may be some changes in the respective shares of these three institutions in rural finance, but the PCFs are unlikely to ever grow into a dominant position. Since they provide only financial services, the PCFs will be unable to meet the other needs of rural communities. Should other rural organizations spring up on their own and provide cooperative functions, they will still be limited because those functions will be separate from financial services. This will not secure satisfactory levels of economic benefits for rural communities. Government institutions will continue to lead rural finance and will probably produce the distortions that are peculiar to the artificial flow of funds that government finance involves. The stronger the demand for funds in non-agricultural sectors, the greater the effect of these distortions will be.

The second option is for the government to take the initiative in creating and developing powerful multi-purpose cooperatives. Doing so will require government intervention to solve the problem of old agricultural cooperatives' debts²¹ and simultaneous policy support in other forms. For example, policy supports for cooperative distribution and subsidized financing will probably be required. Local organizations will require a high degree of completeness, so the government will have to take the lead in boosting the participation of local farmers, which will in turn require some form of compulsion. This will be met with psychological resistance from the farmers and will also increase the costs to the government. This option may therefore be unrealistic at this time, though it is a choice the government may wish to make in the future, for example, at a time when farmers are being buffeted by the waves of market economies and there is a consensus on the need for powerful farm organizations.

The third option 3 represents a mid-point of the first two options, the coexistence of PCFs and agricultural cooperatives that provide financial services. PCFs would be allowed to continue to provide their current financial services, or to expand into new businesses. Newly created cooperatives would be free to provide a comprehensive range of services, but only when they wish to and doing so would be profitable. The government would provide no direct subsidies and impose no direct regulations, merely engage in such prudential activities as registration, education, and recognition. From a legal standpoint, agricultural cooperatives would be able to provide voluntary, comprehensive financial services within the framework of the new Cooperatives Law, so those cooperatives with skilled leaders would probably develop into more comprehensive organizations. However even if this option is selected, though, the constraints described above would still be operative, it is improbable that the agricultural cooperatives would grow to the point that they dominate Vietnamese rural villages, at least over the short term. For the foreseeable future, there will, at best, be only a handful of agricultural cooperatives in all of Viet Nam that provide financial services, and as a result, sufficient economic benefits would not be secured for the farm population.

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²¹ For specific debt relief measures see last years report, JICA and MPI [96] Vol. 5, p. 9.

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Table 1 Current state of Vietnamese rural finance

| | The Viet Nam Bank for Agriculture (VBA) | The Viet Nam Bank for the Poor (VBP) | People's Credit Funds (PCFs) |
|---------------------|--|---|---------------------------------|
| Number of branches | 760 | 570 | 817 |
| Outstanding loans | 12,161 bil VND (81.8%) | 1,650 bil VND (11.1%) | 991 bil VND (6.7%) |
| Number of borrowers | 3,562,000 | 1,399,000 | 379,000 |
| Average loan size | 3.4 mil VND | 1.2 mil VND | 2.6 mil VND |
| Mobilized funds | 12,626 bil VND (90.5%) | 663 bil VND (4.8%) | 666 bil VND (4.8%) |

Notes

- 1) All figures as of the end of December 1996.
- 2) Source: material provided by Vietnamese Government.
- 3) The figures in parentheses for outstanding loans and mobilized funds represents ratios to the total provided by three items.
- 4) The number of PCF offices represents the number of PCFs. The number of borrowers represents the number of members.
- 5) Mobilized funds represents deposits balances. Bonds are also included for the VBA

Table 2 Changes in uses of VBA Funds (at the end of year, billions of dong)

| Year | Outstanding loans | Of which short - term | Of which to farmers | Reserves for payments | Total funds |
|------|-------------------|--------------------------|------------------------|--------------------------|-------------|
| 1990 | 1,552 | 1,445 | 0 | 688 | 2,628 |
| 1992 | 3,418 | 3,294 | 1,488 | 533 | 5,183 |
| 1993 | 5,911 | 5,092 | 3,832 | 754 | 7,708 |
| 1994 | 7,938 | 6,679 | 5,252 | 1,053 | 11,998 |
| 1995 | 12,450 | 10,158 | 7,308 | 2,171 | 18,110 |

Notes

- 1) Reserves for payments include cash and reserves required by the central bank.
 - 2) There are problems with the reliability of data until 1992.
- Source VBA Annual Reports for 1994 and 1995; World Bank[94].

Table 3 Changes in sources of VBA Funds (at the end of year, billions of dong)

| Year | Savings | Of which deposits | Borrowings | Of which from the SBV | Total funds |
|------|---------|-------------------|------------|-----------------------|-------------|
| 1990 | 1,079 | 1,104 | 1,285 | 984 | 2,628 |
| 1992 | 2,458 | 2,089 | 2,094 | 1,457 | 5,183 |
| 1993 | 3,712 | 2,107 | 2,500 | 2,500 | 7,708 |
| 1994 | 5,765 | 3,029 | 3,442 | 2,722 | 11,998 |
| 1995 | 11,353 | 6,258 | 2,214 | 1,041 | 18,110 |

Notes

- 1) Savings are comprised of deposits from general public, bonds, and bills.
 - 2) Borrowings include SBV rediscounting, SBV public credit liquidation, SBV interbank credit liquidation, and borrowings from other financial institutions. The SBV borrowings in the table include the first three items.
 - 3) There are problems with reliability of data until 1992.
- Source VBA Annual Reports for 1994 and 1995; World Bank [94].

Table 4 Changes in profits and losses of VBA (in billions of dong)

| Year | 1993 | 1994 | 1995 |
|-------------------------------|-------|-------|-------|
| Interest revenues | 1,290 | 2,367 | 2,825 |
| Of which; interest on loans | 1,255 | 2,329 | 2,739 |
| Others | 35 | 38 | 86 |
| Other revenues | 4 | 4 | 2 |
| Total revenues | 1,294 | 2,371 | 2,827 |
| Expenditures | | | |
| Interest payable | 989 | 1,693 | 1,972 |
| Of which; payable on deposits | 325 | 307 | 782 |
| Other | 664 | 1,386 | 1,190 |
| Non-interest expenditures | 261 | 620 | 739 |
| Staff costs | 121 | 342 | 325 |
| Other | 140 | 278 | 414 |
| Total expenditures | 1250 | 2,313 | 2,711 |
| Pre-tax income | 44 | 58 | 67 |
| After-tax income | 2 | 23 | 48 |

Source VBA Annual Reports for 1994 and 1995.

Table 5 VBA interest rate structure, 1992-1994 (monthly rates: %)

| | Oct.1992- Apr.1993 | Apr.1993- Oct. 1993 | Oct.1993- Mar.1994 |
|------------------------------------|--------------------|---------------------|--------------------|
| Interest rates on mobilization | | | |
| Deposits from economic units | | | |
| Demand deposits | 0.3 | 0.1 | 0.1 |
| Term deposits | 1.5 | 1.0 | 0.8-1.0 |
| Household savings | | | |
| Demand deposits | 1.0 | 0.8 | 0.7 |
| Term deposits | 2.0 | 1.7 | 1.4-2.0 |
| Bonds | 2.3 | 2.0 | 1.7 |
| Interest rates on loans | | | |
| Short-term loans | | | |
| To Individuals | | | |
| Salt production | 2.5 | 2.1 | 1.8 |
| Farming, livestock, processing | 2.5 | 2.1 | 1.8 |
| Distribution, services | 2.7 | 2.3 | 2.1 |
| To SOEs | | | |
| Priority | 2.0 | 1.5 | 1.4 |
| Fertilizer, agri. material | 2.5 | 2.1 | 2.1 |
| Light manufacturing and processing | 2.5 | 2.1 | 1.8 |
| Mediums/long term loans | | | |
| To Individuals | 1.8 | 1.5 | 1.2 |
| To SOEs | 1.8 | 1.5 | 1.2 |

Source World Bank [94].

Table 6 VBA interest rate structure, as of the end of October 1996 (monthly rates: %)

| | | |
|-----------------|-----------------------|-------|
| Funds mobilized | Demand deposits | 0.6 % |
| | Term deposits 3 month | 0.7 |
| | 6 month | 0.8 |
| | Bonds 13 month | 0.9 |
| | 24 month | 1.0 |
| | 36 month | 1.1 |
| Loans | Urban short term | 1.25 |
| | medium term | 1.35 |
| | Rural short term | 1.45 |
| | medium term | 1.50 |

Source VBA materials.

Table 7 Rural finance in the three provinces surveyed

| | Ninh Binh (north) | Quang Ngai (central) | An Giang (south) |
|---|----------------------|-------------------------|---------------------|
| Number of rural households | 176,510 | 223,148 | 300,853 |
| Of which; agricultural | 164,345 | 186,648 | 151,572 |
| Outstanding loans from VBA mil. dong | 201,310 | 146,000 | 494,980 |
| Number of household borrowed | 43,522 | 17,500 | 250,000 |
| Ratio of household borrowed | 24.7% | 7.8% | 83.1% |
| Mobilized savings mil.dong | 151,719 | 155,000 | 240,000 |
| Overdue ratio | 7.6% | 10% | 0.8% |
| Outstanding loans from VBP | 32,546 | 29,662 | 43,812 |
| Number of borrowers | 32,431 | 18,422 | 40,904 |
| Ratio of household borrowing | 18.4% | 8.3% | 13.6% |
| PCFs established | 19 | 13 | 29 |
| Number of members | 5,425 | 5,423 | 39,584 |
| Outstanding loans | 6,782 | 7,445 | 113,962 |
| Mobilized savings | 4,273 | 6,378 | 82,716 |
| Number of borrowers | 3,682 | 4,096 | 20,687 |

Notes

- 1) Data covers three provinces studied by the Team of Rural Finance
- 2) For Quang Ngai, rescheduled loans were used in place of overdues.
- 3) Number of households borrowed is the total number of household with the experience in using loans.

Table 8 Households of responsible positions (HRP) and their relationship with institutional loans (number of household)

| | Ninh Binh (north) | | Quang Ngai (central) | | An Giang (south) | |
|--------------------------------------|----------------------|---------|-------------------------|---------|---------------------|---------|
| | HRP | Non-HRP | HRP | Non-HRP | HRP | Non-HRP |
| Total number surveyed | 100 | | 100 | | 100 | |
| | 9 | 91 | 12 | 88 | 30 | 70 |
| Number of household with VBA loan | 23 | | 2 | | 65 | |
| | 5 | 18 | 2 | 0 | 25 | 40 |
| Number of household with VBP loan | 8 | | 39 | | 9 | |
| | 1 | 7 | 8 | 31 | 3 | 6 |

Notes

- 1) Data from survey questionnaires of Rural Finance Team
- 2) HRPs (households of responsible position) are those household of which member is working at institutions related to the administration, like provincial, district, village, and community offices, or is the leader of mass organization at village level.

Summary of Farm Household Survey Regarding Rural Finance

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I . Methodology of the Survey

In January 1997, The Japan International Cooperation Agency (JICA) and the Ministry of Planning and Investment (MPI) of the Government of Viet Nam jointly carried out a survey regarding rural finance. The survey was held in the three provinces, Ninh Binh Province, Quang Ngai Province and An Giang Province.

These provinces represent respectively a province of the Red River Delta which is densely populated but in relatively better economic conditions, i.e., Ninh Binh Province; a province in the poor central coastal region, i.e., Quang Ngai Province; and a province with commercialized agriculture oriented to exports, i.e., An Giang Province. In each of the provinces, two communes ("xa"), one relatively close to the provincial capital and economically developed, and another commune far from the urban area and economically underdeveloped, were chosen. Moreover from each commune, a representative hamlet ("xom") to the respective commune was selected. All households of each hamlet in case they are less than 50, or 50 households selected by random sampling in case over 50, were subject to the survey.

The actual survey preceded the following procedure. At first survey questionnaires were produced under the direction of Prof. Yoichi Izumida, a member of academic group of the Japanese team. In December 1996, the initial questionnaires were tested in Hai Duong Province in the Red River Delta region, and revised according to the results of the test. The survey was held in interviewing individual households by staff of the Ministry of Planning and Investment under the guidance of the JICA study team. At the same time interviews of rural financing institutions, concerned administrative staff and farmers' organizations were conducted. Compilation and tabulation of data were carried out by the JICA study team on the basis of survey outcomes inputted by MPI.

II . Overview of the Surveyed Communes and Hamlets

Names and main features of the six villages subject to the survey are shown in Table 1. Ninh Binh in the Red River Delta and Quang Ngai Province in the central coast are located in densely populated areas, thus the average farm land sizes per farm household are small ranging from 0.19 to 0.3 hectare. On the contrary, the farm land size in Vinh Binh Village in An Giang Province in the Mekong River Delta is as large as 3.4 hectares, while in An Chau Village located closely to the provincial capital, Long Xuyen City, and in the center of Chau Thanh District in the same province, the size is as small as 0.6 hectare.

III . Farm Household Income

1. Main Sources of Income

Main sources of farm incomes are shown in Table 2. Throughout all villages, "farming" ranks first with the average of 82.7% of total incomes. "Trade" ranks next. In An Giang Province where trading is developed while the agricultural structure has started to polarize, "trade" as an income source is particularly significant.

"Cottage industry" is most noticeable in Ninh Phong Village of Ninh Binh Province. The village has traditionally been producing furniture, and, according to the outcome of interviews, 268 out of 1,500 households currently engage in furniture production.

An Chau Village located close to the provincial town has diversified professions from trade to cottage industry, public servants, wage earners in private enterprises.

As the second income source (Table 3), in Ninh Phong and Ninh Thang in the Red River Delta, and Vinh Binh and An Chau in the Mekong River Delta, various professions as side jobs are found. On the other hand, in Ngia Son and Son Tinh in the central coast few other income sources than farming are found.

2. Amount and Composition of Farm Income

A wide difference in farm income in terms of gross output is observed among regions (Table 4). From the lowest to the highest farm income, six villages are ordered: Son Tinh (Quang Ngai) with the average income of VND 3,240 thousand (approximately US\$ 304), Ngia Son (Quang Ngai) VND 4,120 thousand (US\$ 375), Ninh Thang (Ninh Binh) VND 6,790 thousand (US\$ 618), Ninh Phong (Ninh Binh) VND 7,610 thousand (US\$ 692), An Chau (An Giang) with VND 12,580 thousand (US\$ 1,143), and the highest being Vinh Binh (An Giang) with VND 39,450 thousand (US\$ 3,587). Since non-farms are included in the last two villages, income of farm households alone is greater: VND 15,720 thousand (US\$ 1,429) for An Chau and VND 42,880 thousand (US\$ 3,899) for Vinh Binh respectively.

These figures indicate that the difference in gross agricultural output is as wide as ten times between poor villages in the central coast and rich villages in the Mekong River Delta. The most contributing factor to the difference is the size of farmland. In fact, the average farm land size of Vinh Binh is 18 times of Son Tinh.

Another factor causing the difference is the extent of agricultural diversification. In this connection it is noticed that the ratio of rice output in the total gross output varies considerably among villages. Moreover within villages in the same region, the average output per household tends to increase with

diversification towards livestock, fisheries (aquaculture and inland fisheries) and industrial crops. Thus in the Red River Delta the average farm output in Ninh Phong with the rice output ratio of 44.8% is greater than that in Ninh Thang (59.0%), in the central coast Ngia Son (25.0%) has greater than Son Think (54.6%), and in the Mekong River Delta Vinh Binh (50.7%) has a greater output than An Chau (80.6%).

The extent of agricultural diversification naturally relates more closely to sales value of agricultural products (or cash income) than gross output. In such regions as the Red River Delta (Ninh Binh Province) and the central coast (Quang Ngai Province) where rice is largely for home consumption, cash income largely comes from livestock and industrial crops. In Vinh Binh with the largest farm size, fisheries comprise some 37% of the total cash income. Thus agricultural diversification affects to the amount of cash income.

It is concluded from the above observations that in rural Viet Nam where the non-agricultural sector has not developed, revenues of farm households basically depends on respective farm sizes and at the same time the extent of agricultural diversification. This implies that as an expansion of farm land size is difficult, increase in farm household income depends on agricultural diversification and generation of non-agricultural income earning opportunities.

IV. Shortage of Fund and Structure of Lending Sources

1. Shortage of Fund is the Most Important Constraint to Agricultural Development

In order to identify main constraints to agricultural production, outcomes of the previous farm household survey held in the first phase is referred to. According to Table 7, a majority of farm households look for an expansion of agricultural production. Among main constraints to expansion of agriculture, the shortage of fund is most frequently indicated.

2. Structure of Lending Sources

Table 8 shows the lending sources of surveyed farm households in 1996. Out of total lending, formal financing institutions account for 79.2%. According to the Viet Nam Living Standards Survey held in 1992 - 93, lending from formal sources was only 25.8%, while 73.1% of total lending came from informal sources with or without interest. Compared with these results each other, it appears that a considerable part of informal lending in rural areas has been replaced by formal lending for last several years.

As a whole, financing from Viet Nam Bank for Agriculture and Rural Development (VBA) takes a lion's share of over 80% of the total formal lending. Regional difference is noticeable however. In mountain areas in particular (Ngia Son in Quang Ngai Province) where issuing of land use certificates serving as mortgage in lending delays, no lending is made by VBA and lending from the Viet Nam Bank for the Poor (VBP) is the sole source of formal financing.

The share of the People's Credit Funds (PCF) stands as small as 0.6% of the total finance. It is simply caused by the fact that only one village, Ninh Phong has a PCF.

In Ninh Phong, PCF comprises 8.7% of the total lending of formal and informal lending combined, and 9.8% of the formal lending. As PCF in the village was set up just three months before the survey, its activity has not fully developed. In villages in which PCF has been carrying out operations for several years, as in Gia Khanh Village in Hai Duong Province, the pre-test village of the survey, the lending amount of PCF exceeds that of VBA. In Ninh Phong, PCF has been rapidly expanding both lending and deposit, and its future development is foreseen.

3. Number of Borrowing Households

Table 9 shows numbers of farm households borrowing from individual financing institutions. Of total 300 households surveyed, those borrowing from VBA are the largest with 90 households (30.0%), followed by VBP (56 households or 18.7%). Including those from rural shareholder banks (RSB) and the state treasury, 144 households (48.0% of the total) borrowed from formal financing institutional sources during 1996.

The level of operations of formal financing institutions varies by region. VBA is predominant in most surveyed regions, particularly in An Giang Province. In Quang Ngai Province, however, few lending from VBA is extended.

Thirty households (10.0%) borrow from informal sources. This represents only 20 % of those from formal sources. It suggests that formal financing institutions like VBA and VBP have developed and replaced informal sources. Yet actual situation of activities of informal sources may not be fully revealed in such a survey held by "outsiders," and the actual share may be greater.

Borrowing from relatives and friends is central in informal financing, but that from money lenders is also significant, particularly in Vinh Binh in the Mekong River Delta. It is assumed that agricultural investment is especially active in this village as commercial agriculture has developed. Formal lending may not be sufficient to meet active demand for finance and money lenders fill the gap. Interest rates charged by money lenders are generally high at a rate of 5 to 10% per month, which are considerably higher than the rate applied by formal financing institutions of 1.5% per month. In the Mekong River Delta, formal sources with low interest rates operate along with informal sources with high interest rates.

4. Amount of Borrowing

Average borrowing amounts per household vary among villages and regions. The smallest amount from formal sources is recorded in Ninh Thang in Ninh Binh Province amounting to VND 1,300 thousand or approximately US\$ 120 per household. According to results obtained from interviews at the village, nearly 70% of households have intention to draw loans from VBA, and their required amounts range from VND 2,000 thousand (in case of purchase of fruit seedlings) to VND 10,000 thousand in case of purchase of farm machinery, with the average of VND 5,000 thousand (US\$ 450). Formal financing institutions are yet to satisfy funding needs in such magnitudes.

Smallest amounts of borrowing next to Ninh Thang are observed in Ngia Son and Son Tinh in Quang Ghai Province. It is caused by the fact that VBA's activities are not visible in these villages and VBP is the only institution extending formal financing. In Ngia Son, on average some VND 1,500 thousand are financed against the required amount of VND 3,000 to 4,000 thousand. In Son Tinh as well, the required amount is reportedly some VND 5,000 thousand, while the average amount presently financed is VND 2,100 thousand, below a half of the required amount.

On the other hand, in villages in the Mekong River Delta where need is high and provision of fund at branch offices allocated from the headquarters is relatively ample, lending amount per household is generally high. Specifically in Vinh Binh, the average amount of lending stands at VND 11,100 thousand or US\$ 1,000. A farm household borrows as high as VND 75,000 thousand or US\$ 6,800 for construction of aquaculture facilities.

V. Uses of Borrowed Fund

Table 10 shows destinations of borrowed fund. On the whole, most of borrowed money is used for agriculture, particularly livestock production. This trend is most revealing in formal financing, especially from VBP. In rural Viet Nam where farmland is limited, productive investment for increasing income tends to be oriented to livestock production. This tendency is strongly demonstrated in poor households which have little asset like land for securing loan and are eligible to VBP financing.

Many loans from VBA are used for cultivation (including paddy) purposes. By region, loans for cultivation purposes concentrate in two villages in An Giang Province where commercial paddy farming prevails. In fact 39 out of total 42 households replied to a separate inquiry that they use loans for this purpose. On the other hand, in other regions with little farmland (Ninh Binh Province in the Red River Delta and Quang Ngai Province in the central coastal region), livestock production represents a large portion of lending (18 out of 25 inquired households borrowed from VBA). Even in borrowing from informal sources, agricultural purposes comprise over half of cases. Yet informal financing is characterized by a relatively high proportion for consumption and house construction purposes.

“Two tier structure” of rural finance is realized in which lending for productive purposes depends on formal sources and that for consumption purposes on informal sources like friends, relatives and money lenders.

Regarding the effectiveness of loans, typical cases in the surveyed hamlets were interviewed. Although a limited number of cases accounting for 30 does not allow the statistical analysis, they as a whole indicate generally positive effects of borrowed fund. The income increasing effect of loans from formal sources can be divided into that caused by capital investment for productive activities using borrowed fund and that caused a reduction in interest payment. As an example of the former effect, a farm household with little land in An Giang province initiated a large scale aquaculture by borrowing VND 75 million from VBA and earned a considerable amount of income. The latter effect is realized by replacing loans from money lenders by that from a formal financing institution carrying a lower interest rate. In order to make these effects be realized, however, effective investment opportunities should be identified and financed fund meet the need. Supports for marketing of products and introducing new techniques are also required so as to make borrowed fund to be effective.

VI. Future Issues of Rural Finance Derived from the Household Survey

The above information points to the fact that recent development of formal funding has improved the access of rural households to institutional financing thus enabled many households to borrow fund for expanding agricultural production. Yet in order to enhance agricultural production as the thrust of rural economy improvement, shortage of fund remains as the most important constraint. Development of formal financing market should contribute to reduce and remove the constraint. Issues for strengthening rural finance in the future derived from the survey are indicated below:

1. Coverage of Formal Financing Institutions Widely Varies among Regions

There are differences among regions regarding degree of development of various formal financing institutions while on the whole nearly a half of rural households is covered by their activities. In An Giang Province in the Mekong River Delta, these institutions have well developed and most of rural households can access to them. On the other hand, in Ninh Binh and Quang Ngai Provinces, they are less developed, and according to the information obtained at the Quang Ngai Branch of VBA, only 10 % of rural households of the province have obtained loans as of end of 1996. The survey of two villages in the same province indicates that many farmers suffered from shortage of fund due to inability of being financed by VBA in spite of their aspiration for increasing production. This situation has in turn limited to increase production and income.

The PCF has been expanding their operations over the country and been contributing to improve rural economy though their operational capacity is not necessarily satisfactory. However its establishment in less developed areas under inferior conditions of economy, transportation and communications has lagged behind. This would maintain and further widen disparities among regions as in less developed areas like Quang Ngai Province financing institutions in general are less developed which jeopardizes to achieve a balanced social and economic development of the country.

2. Lending Amount per Farm Household Remains Short of the Need

As already explained, an average farm household requires at present 5,000 thousand (US\$ 450). While the average lending amount of surveyed households exceeds this amount, those in villages like Ninh Thang is only VND 1,300 thousand which are considerably lower than the requirement.

Specifically it is pointed out that the average lending amount from VBP, as the major financing institution in the area where other institutions are inactive, stands at around VND 1,400 thousand, the level much below the requirement. It is an issue to increase the available fund of VBP in response to increasing need of farm households while maintaining its financial viability.

3. A Need for Medium and Long Term Lending with Lower Interest Rates

Rates of interest of formal lending are relatively low 1.0% to 1.8% per month which are much lower than those of informal sources. Yet it is argued that these rates equivalent to 12.0% to 21.6% per annum yet put a burden to farm households. It is hoped to lower interest rates through a further stabilization in macro-economy and efficient operations of financing institutions.

Many rural households ask for medium and long term loans. At present, most lending is in short term for less than one year. With development of agricultural diversification, such investments as for fruit trees, livestock barns, aquaculture ponds and machinery which require longer periods for recovering invested fund have been increasing, and will further increase in the future.

4. Need for Simplifying Lending Procedures

Responses to whether simplification of lending procedures is required are mixed. The answer that "they are already simple with no problem" is received from some while the answer that they are "cumbersome and to be simplified" also comes from many. In particular the latter response is noticeable in remote areas far from VBA branches and borrowers need to visit many times to branch offices to apply for and receive borrowed money and its repayments.

In some areas, it is voiced that procedures like loan guarantees by farmers' organizations such as Farmers' Unions, Women's Unions and communes are also burdens to borrowers. Increase in branch

and outreach offices at district level and below, and simplification of procedures to the possible extent are needed.

5. Expansion of Consumption Credit

Formal financing institutions except PCF are not lending for consumption purposes. It causes to maintain the informal financial market for the purpose of consumption credit. Informal credit itself is not an evil, but a vicious circle should be avoided so that the poor borrow a fund with a high interest rate which in turn impoverish them further. It needs therefore to promote to establish and develop PCF which lends for consumption purposes, to facilitate mutual help organizations such as Women's Unions, Farmers' Unions and "ho"s.

Table 1 Main features of the surveyed communes

| Province | Commune | Population | Number of Household | Of which Farm Household | Agricultural Area(ha) | Average Ag. Area per Farm(ha) | Remarks |
|--------------------------------|------------|------------|---------------------|-------------------------|-----------------------|-------------------------------|---|
| Ninh Binh (Red River Delta) | Ninh Phong | 6,349 | 1,500 | 1,500 | 390 | 0.26 | 269 households engaged in carpentry. 5km from provincial town |
| | Ninh Thang | 3,600 | 920 | 920 | 293 | 0.32 | Low land, 15km from Prov. town |
| Quang Ngai (Central Coast) | Ngia Son | 820 | 152 | 152 | 51 | 0.34 | Hill and remote area |
| | Son Tinh | 11,000 | 2,600 | 2,100 | 390 | 0.19 | Center of Son Tinh District |
| An Giang (Mekong Delta) | Vinh Binh | 7,500 | 1,384 | 1,050 | 3,600 | 3.4 | Remote Commune |
| | An Chau | 18,190 | 3,500 | 1,000 | 600 | 0.6 | 9km from Prov. town, Center of Chau Thanh District |

Table 2 Primary cash income source of surveyed households (No. of households, %)

| Province | Commune | Primary cash income source | | | | | | | | | | |
|--------------------------------|------------|----------------------------|---------------|-------------|------------------|------------------|-----------------|------------|-------------|------------|------------|------|
| | | Total | Farming | Trade | Cottage Industry | Govt. Employment | Private Company | Pension | Daily Labor | Service | Others | N.A. |
| Ninh Binh (Red River Delta) | Ninh Phong | 50 (100.0) | 35 (70.0) | 1 (2.0) | 6 (12.0) | - | - | 3 (6.0) | - | 2 (4.0) | 3 (6.0) | - |
| | Ninh Thang | 50 (100.0) | 46 (92.0) | 1 (2.0) | - | 1 (2.0) | - | - | 1 (2.0) | 1 (2.0) | - | - |
| Quang Ngai (Central Coast) | Ngia Son | 50 (100.0) | 50 (100.0) | - | - | - | - | - | - | - | - | - |
| | Son Tinh | 50 (100.0) | 50 (100.0) | - | - | - | - | - | - | - | - | - |
| An Giang (Mekong Delta) | Vinh Binh | 50 (100.0) | 31 (62.0) | 8 (16.0) | - | 2 (4.0) | 3 (6.0) | - | 3 (6.0) | 3 (6.0) | - | - |
| | An Chau | 50 (100.0) | 36 (72.0) | 4 (8.0) | 2 (4.0) | 3 (6.0) | 3 (6.0) | - | 1 (2.0) | 1 (2.0) | - | - |
| Total | | 300 (100.0) | 248 (82.7) | 14 (4.7) | 8 (2.7) | 6 (2.0) | 6 (2.0) | 3 (1.0) | 5 (1.7) | 7 (2.3) | 3 (1.0) | - |

Table 3 Secondary cash income source of surveyed households (No. of households, %)

| Province | Commune | Secondary cash income source | | | | | | | | | | | | |
|--------------------------------|------------|------------------------------|--------------|------------|------------------|------------------|-----------------|-------------|-------------|------------|-------------|--------------|---------------|--------------|
| | | Total | Farming | Trade | Cottage Industry | Govt. Employment | Private Company | Pension | Daily Labor | Service | Others | N.A. | | |
| Ninh Binh (Red River Delta) | Ninh Phong | 50 (100.0) | 13 (26.0) | 1 (2.0) | 9 (18.0) | - | - | 4 (8.0) | - | - | 4 (8.0) | - | 4 (8.0) | 19 (38.0) |
| | Ninh Thang | 50 (100.0) | 3 (6.0) | 2 (4.0) | 5 (10.0) | 1 (2.0) | 2 (4.0) | 8 (16.0) | 2 (4.0) | 4 (8.0) | - | 4 (8.0) | 1 (2.0) | 22 (44.0) |
| Quang Ngai (Central Coast) | Ngia Son | 50 (100.0) | - | - | - | - | - | 8 (16.0) | - | - | - | - | 1 (2.0) | 41 (82.0) |
| | Son Tinh | 50 (100.0) | - | - | - | - | - | - | - | - | - | - | 2 (4.0) | 48 (96.0) |
| An Giang (Mekong Delta) | Vinh Binh | 50 (100.0) | 18 (36.0) | 3 (6.0) | 2 (4.0) | 2 (4.0) | 1 (2.0) | 1 (2.0) | 6 (12.0) | 2 (4.0) | - | 2 (4.0) | - | 15 (30.0) |
| | An Chau | 50 (100.0) | 7 (14.0) | 2 (4.0) | 1 (2.0) | - | 3 (6.0) | - | 4 (8.0) | 1 (2.0) | 1 (2.0) | 16 (32.0) | - | 16 (32.0) |
| Total | | 300 (100.0) | 41 (13.7) | 8 (2.7) | 17 (5.7) | 3 (1.0) | 6 (2.0) | 21 (7.0) | 12 (4.0) | 9 (3.0) | 22 (7.3) | 9 (3.0) | 161 (53.7) | |

Table 4 Distribution of surveyed households by size of gross agricultural output (No. of households, %)

| Province | Commune | Gross output (million dong) | | | | | | | | | | Average (mil. dong) |
|-----------------------------------|------------|-----------------------------|----------|---------|---------|---------|----------|-----------|--------|-------|-------|------------------------|
| | | 0 | 0.01-1.0 | 1.0-2.0 | 2.0-3.0 | 3.0-5.0 | 5.0-10.0 | 10.0-20.0 | 20.0- | 20.0- | 20.0- | |
| Ninh Binh (Red River Delta) | Total | 50 | 2 | 1 | 3 | 5 | 29 | 8 | 2 | 2 | 7.61 | |
| | Ninh Phong | (100.0) | (4.0) | (2.0) | (6.0) | (10.0) | (58.0) | (16.0) | (4.0) | (4.0) | | |
| | Ninh Thang | 50 | 2 | 1 | 2 | 18 | 17 | 10 | - | - | 6.79 | |
| Quang Ngai (Central Coast) | Total | 50 | 4 | 12 | 6 | 8 | 17 | 3 | - | - | 4.12 | |
| | Ngia Son | (100.0) | (8.0) | (24.0) | (12.0) | (16.0) | (34.0) | (6.0) | (-) | (-) | | |
| | Son Tinh | 50 | - | 18 | 9 | 17 | 5 | 1 | - | - | 3.24 | |
| An Giang (Mekong Delta) | Total | 50 | 4 | 2 | 3 | 2 | 3 | 8 | 28 | 39.45 | | |
| | Vinh Binh | (100.0) | (8.0) | (4.0) | (6.0) | (4.0) | (6.0) | (16.0) | (56.0) | | | |
| | An Chau | 50 | 10 | - | 6 | 3 | 11 | 11 | 9 | 12.58 | | |
| Total | 300 | 14 | 34 | 29 | 53 | 82 | 41 | 39 | 12.30 | | | |
| | (100.0) | (4.7) | (11.3) | (9.7) | (17.7) | (27.3) | (13.7) | (13.0) | (13.0) | | | |

Note 1 USD is equivalent to 11,000 dong.

Table 5 Average gross agricultural output per surveyed household (mil. dong, %)

| Province | Average Value of Agricultural Production per Household | | | | | | | | | |
|------------|--|----------------|----------|---------------|---------------|----------------|-----------------|------------------|--|--|
| | Rice | AJC | PIC | Fruit | Vegetable | Livestock | Fishery | Total | | |
| Commune | | | | | | | | | | |
| Ninh Phong | 3.41 (44.8) | 0.12 (1.6) | - (-) | - (-) | 0.28 (3.7) | 3.05 (40.0) | 0.75 (9.8) | 7.61 (100.0) | | |
| Ninh Thang | 4.01 (59.0) | - (-) | - (-) | - (-) | 0.02 (0.3) | 2.52 (37.0) | 0.25 (3.7) | 6.79 (100.0) | | |
| Ngia Son | 1.03 (25.0) | 2.06 (50.0) | - (-) | 0.01 (0.3) | 0.00 (0.1) | 1.01 (24.5) | 0.00 (0.1) | 4.12 (100.0) | | |
| Son Tinh | 1.77 (54.6) | 0.44 (13.4) | - (-) | - (-) | 0.01 (0.3) | 1.02 (31.6) | - (-) | 3.24 (100.0) | | |
| Vinh Binh | 20.01 (50.7) | - (-) | - (-) | - (-) | - (-) | 4.75 (13.0) | 14.70 (37.3) | 39.45 (100.0) | | |
| An Giang | 10.14 (80.6) | - (-) | - (-) | 0.24 (1.9) | 0.01 (0.1) | 1.71 (13.6) | 0.46 (3.7) | 12.58 (100.0) | | |
| Average | 6.73 (54.7) | 0.44 (3.5) | - (-) | 0.04 (0.3) | 0.05 (0.4) | 2.34 (19.0) | 2.69 (21.9) | 12.30 (100.0) | | |

Note AJC means annual industrial crops, PIC means perennial industrial crops.

Table 6 Average cash income per surveyed household (mil. dong, %)

| Province | Commune | Average cash income per surveyed households | | | | | | | | | |
|--------------------------------|------------|---|----------------|----------|---------------|---------------|----------------|-----------------|------------------|--|--|
| | | Rice | AIC | PIC | Fruit | Vegetable | Livestock | Fishery | Total | | |
| Ninh Binh (Red River Delta) | Ninh Phong | 1.12 (22.9) | 0.03 (0.5) | - (-) | - (-) | 0.17 (3.4) | 2.99 (59.2) | 0.71 (14.0) | 5.05 (100.0) | | |
| | Ninh Thang | 1.86 (42.2) | - (-) | - (-) | - (-) | 0.01 (0.3) | 2.38 (53.9) | 0.16 (3.7) | 4.41 (100.0) | | |
| | Ngia Son | 0.06 (2.3) | 1.83 (67.4) | - (-) | - (-) | - (-) | 0.82 (30.1) | 0.01 (0.2) | 2.71 (100.0) | | |
| Quang Ngai (Central Coast) | Son Tinh | 0.26 (17.4) | 0.27 (18.1) | - (-) | - (-) | 0.01 (0.7) | 0.96 (63.8) | - (-) | 1.51 (100.0) | | |
| | Vinh Binh | 18.30 (50.9) | - (-) | - (-) | - (-) | - (-) | 4.54 (12.6) | 13.11 (36.5) | 35.96 (100.0) | | |
| An Giang (Mekong Delta) | An Chau | 7.99 (78.0) | - (-) | - (-) | 0.23 (2.3) | 0.00 (0.0) | 1.67 (16.3) | 0.34 (3.3) | 10.24 (100.0) | | |
| | Average | 4.94 (49.5) | 0.35 (3.6) | - (-) | 0.04 (0.4) | 0.03 (0.3) | 2.23 (22.3) | 2.39 (23.9) | 9.98 (100.0) | | |

Note Cash income of rice is estimated.

Table 7 Future prospect of agriculture and the most important constraint to agricultural expansion (No. of households, %)

| Province | Total | Future prospect of agriculture | | | | | The most important constraint to agricultural expansion | | | | | | | |
|-----------------------------|----------------|--------------------------------|--------------|-------------------------|-------------|-----------------|---|---------------|---------------|------------------------------|-------------|--------|--------------|--|
| | | Enlarge | Status Quo | Enlarge non-agriculture | N.A. | Lack of Capital | Lack of Ag. Land | Lack of Labor | Lack of Water | Lack of Price of Ag. Product | Marketing | Others | N.A. | |
| Thai Binh (Red River Delta) | 50 (100.0) | 5 (10.0) | 37 (74.0) | 3 (6.0) | 5 (10.0) | 32 (64.0) | 2 (4.0) | - | - | 3 (6.0) | 5 (10.0) | 2 | 6 | |
| Dak Lac (Central Highland) | 50 (100.0) | 28 (56.0) | 20 (40.0) | 2 (4.0) | - | 47 (94.0) | - | - | - | - | - | - | 3 | |
| Can Tho (Mekong Delt) | 50 (100.0) | 29 (58.0) | 19 (38.0) | 1 (2.0) | 1 (2.0) | 40 (80.0) | - | 1 (2.0) | - | - | 2 (4.0) | 1 | 6 | |
| Total | 150 (100.0) | 62 (41.3) | 76 (50.7) | 6 (4.0) | 6 (4.0) | 119 (79.3) | 2 (1.3) | - | 1 (0.7) | 3 (2.0) | 7 (4.7) | 3 | 15 (10.0) | |

Source JICA & MPI. The Economic Development Policy in the Transition Toward a Market-Oriented Economy in the Socialist Republic of Viet Nam, Agricultural and Rural Development, 1996

Table 8 Accumulated borrowed amount per surveyed household by financing institution (mil. dong, %)

| Province | Commune | Formal finance | | | | | | Informal finance | | | | | | Total |
|-----------------------------|------------|-----------------|--------------|-----------------|---------------|--------------|-----------------|------------------|----------------|---------------|--------------|-----------------|------------------|-------|
| | | VBA | PCF | VBP | RSB | Treasury | Formal: Total | Relative | Friend | Money Lender | ROSCAs | Informal: Total | | |
| Ninh Binh (Red River Delta) | Ninh Phong | 44.5 (64.8) | 6.0 (8.7) | 1.7 (2.5) | 9.0 (13.1) | - | 61.2 (89.1) | 1.5 (2.2) | 6.0 (8.7) | - | - | 7.5 (10.9) | 68.7 (100.0) | |
| | Ninh Thang | 20.5 (54.4) | - | 3.5 (9.3) | - | - | 24.0 (63.7) | 6.0 (15.9) | 2.5 (6.6) | 5.2 (13.8) | - | 13.7 (36.3) | 37.7 (100.0) | |
| Quang Ngai (Central Coast) | Ngia Son | - | - | 40.7 (100.0) | - | - | 40.7 (100.0) | - | - | - | - | - | 40.7 (100.0) | |
| | Son Tinh | 11.5 (25.7) | - | 18.0 (40.3) | - | - | 29.5 (66.0) | 15.2 (34.0) | - | - | - | 15.2 (34.0) | 44.7 (100.0) | |
| An Giang (Mekong Delta) | Vinh Binh | 420.0 (67.1) | - | 10.3 (1.6) | 26.0 (4.2) | - | 456.3 (72.9) | 43.0 (6.9) | 79.1 (12.6) | 47.5 (7.6) | - | 169.6 (27.1) | 625.9 (100.0) | |
| | An Chau | 156.8 (86.8) | - | 5.8 (3.2) | 7.5 (4.2) | 8.5 (4.7) | 178.6 (98.9) | - | - | - | 2.0 (1.1) | 2.0 (1.1) | 180.6 (100.0) | |
| Total | | 653.3 (65.4) | 6.0 (0.6) | 80.0 (8.0) | 42.5 (4.3) | 8.5 (0.9) | 790.3 (79.2) | 65.7 (6.6) | 87.6 (8.8) | 52.7 (5.3) | 2.0 (0.2) | 208.0 (20.8) | 998.3 (100.0) | |

Table 9 Number of borrowed households and average lending amount per surveyed household by financing institution
(No. of households, million dong)

| Province | Commune | Formal finance | | | | | | | Informal finance | | | | | Total no. borrowed households ³⁾ |
|--------------------------------|------------|----------------|------------|-------------|------------|------------|--------------|-------------|------------------|--------------|------------|----------------|--------------|---|
| | | VBA | PCF | VBP | RSB | Treasury | Formal Total | Relative | Friend | Money Lender | ROSCAs | Informal Total | | |
| Ninh Binh (Red River Delta) | Ninh Phong | 8 (5.6) | 3 (2.0) | 3 (0.6) | 1 (9.0) | - (-) | 12 (5.1) | 3 (0.5) | 1 (6.0) | - (-) | - (-) | 4 (1.9) | 13 (5.3) | |
| | Ninh Thang | 15 (1.4) | - (-) | 5 (0.7) | - (-) | - (-) | 18 (1.3) | 2 (3.0) | 2 (1.3) | 1 (5.2) | - (-) | 5 (5.0) | 22 (1.7) | |
| Quang Ngai (Central Coast) | Ngia Son | - (-) | - (-) | 27 (1.5) | - (-) | - (-) | 27 (1.5) | - (-) | - (-) | - (-) | - (-) | - (-) | 27 (1.5) | |
| | Son Tinh | 2 (5.8) | - (-) | 12 (1.5) | - (-) | - (-) | 14 (2.1) | 6 (2.5) | - (-) | - (-) | - (-) | 6 (2.5) | 18 (2.5) | |
| An Giang (Mekong Delta) | Vinh Binh | 38 (11.1) | - (-) | 6 (1.7) | 4 (6.5) | - (-) | 41 (11.1) | 5 (8.6) | 2 (40.0) | 8 (5.9) | - (-) | 14 (12.1) | 44 (14.2) | |
| | An Chau | 27 (5.8) | - (-) | 3 (1.9) | 1 (7.5) | 3 (2.8) | 32 (5.6) | - (-) | - (-) | - (-) | - (-) | 1 (2.0) | 33 (5.5) | |
| Total | | 90 (7.3) | 3 (2.0) | 56 (1.4) | 6 (7.1) | 3 (2.8) | 144 (5.5) | 16 (4.1) | 5 (2.9) | 9 (5.9) | 1 (2.0) | 30 (6.9) | 157 (6.4) | |

Notes

- 1) Figures in parentheses are the average borrowed amount per borrower.
- 2) Average lending amount = Total lending amount / Number of borrowed households
- 3) Total number of households borrowing from respective lenders in each commune may not add up with "total number of borrowing households" since one household may borrow from more than one sources.

Table 10 Number of households by borrowing purposes and by financing institution (household, (%))

| Lending institute. | Total no. of borrowed households ¹⁾ | Agriculture | | | | | | Non-agricultural Productive purposes | | | | | Consumption Purpose | | | Total no. households ^{1,2)} |
|------------------------|--|--------------|--------------|-------------|----------------------|-------------------|---------------|--------------------------------------|--------------------------|-----------------------|-------------|--------------------|---------------------|------------|----------------|--------------------------------------|
| | | Cultivation | Livestock | Fishery | Other Ag. Production | Agriculture Total | Home Industry | Trade | Other Non-ag. Production | Non-agriculture Total | Consumption | House Construction | Consumption Total | Others | | |
| VBA | 90 | 42 (41.2) | 38 (37.2) | 3 (2.9) | - | 83 (81.4) | 3 (2.9) | 3 (2.9) | 1 (1.0) | 7 (6.9) | - | 11 (10.7) | 11 (10.7) | 1 (1.0) | 102 (100.0) | |
| PCF | 3 | - | 1 | - | 1 | 2 | - | - | - | 1 | - | - | - | - | 3 | |
| VBP | 56 | 4 (7.4) | 48 (88.9) | - | 1 (1.9) | 53 (98.1) | 1 (1.9) | - | - | 1 (1.9) | - | - | - | - | 54 (100.0) | |
| RSB | 6 | 2 | 2 | 1 | - | 5 | - | - | - | - | - | - | - | - | 5 | |
| Treasury | 4 | - | 3 | 1 | - | 4 | - | - | - | - | - | - | - | - | 4 | |
| Formal Finance Total | 159 | 48 (28.6) | 92 (54.8) | 3 (3.0) | 2 (1.2) | 147 (87.5) | 3 (3.0) | 3 (1.8) | 1 (0.6) | 9 (5.4) | - | 11 (6.5) | 11 (6.5) | 1 (0.6) | 168 (100.0) | |
| Relative | 16 | 5 | 2 | 3 | - | 10 | 1 | - | - | 1 | - | 2 | 3 | - | 16 | |
| Friend | 6 | 1 | 2 | 1 | - | 4 | - | 1 | - | 1 | - | 1 | - | - | 6 | |
| Money Lender | 9 | 4 | 2 | 2 | - | 8 | - | 1 | - | 1 | - | 2 | - | - | 11 | |
| ROSCAs | 2 | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | 2 | |
| Informal Finance Total | 33 | 10 (28.6) | 7 (20.0) | 6 (17.1) | - | 23 (65.7) | 1 (2.9) | 2 (5.7) | - | 3 (8.6) | 5 (14.3) | 3 (8.6) | 8 (22.9) | 1 (2.9) | 35 (100.0) | |
| Total | 157 | 58 (28.6) | 99 (48.8) | 11 (5.4) | 2 (1.0) | 170 (83.7) | 6 (3.0) | 5 (2.5) | 1 (0.5) | 12 (5.9) | 5 (2.5) | 14 (6.9) | 19 (9.4) | 2 (1.0) | 205 (100.0) | |

Notes

- 1) Total numbers of borrowed households from respective institutions may not add up with the total number of households by borrowing purpose since one household may use one loan for more than one purposes.
- 2) Total number of households by lending purposes. The figures may be smaller than the number of borrowed households, since those not specified the purposes are excluded.

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