

PW-ABC-399

60923

SMALL FARMER PERSPECTIVE ON DEVELOPMENT

VILLAGE SURVEY IN NORTHEAST THAILAND

- A. Contextual Background Study
(Hawaiian Agronomics, Inc.)
- B. Demographic Survey
- C. Group Interviews Survey
- D. Individual Interviews Survey

Report From A.I.D. Contract With Deemar Company Limited,
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A. CONTEXTUAL BACKGROUND STUDY

DEVELOPMENT IMPACT IN THE NORTHEAST
Small Farmer Perspective
on
Development
in
Northeast Thailand
(Contextual Background)

September 1987

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Mr. Richard Ray Solem
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Washington, DC 20523

Subject: Development Impact in the Northeast (Small
Farmer Perspective on Development in Northeast
Thailand)

Dear Mr. Solem:

Hawaiian Agronomics (International), Inc. is pleased to present to you the enclosed report in two copies: *Development Impact in the Northeast (Small Farmer Perspective on Development in Northeast Thailand)*.

This report has been prepared in accordance with the Terms of Reference as outlined in the Technical Proposal and Award Contract between Deemar Company Ltd. and the United States Agency for International Development dated 16 May 1987.

The report is a review of pertinent project documents of agriculture projects carried out in the Northeast over the past twenty years together with information gathered through extensive interviews with individuals both in the public and private sector who have been close to these development activities. Furthermore, the report summarizes the policies and trends of the important projects and points out changes in policy over time. Statistical data obtained from government and non-government development organizations is included so that further analysis can be made of the effects of these projects on the quality of life in the region.

It has been a pleasure to work on this study and we trust that it will assist PPC/CDIE USAID in its future development activities. I hope that Hawaiian Agronomics can be of service to you again in the future.

Sincerely,

David Hanks
Office Manager

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EXECUTIVE SUMMARY

Northeast Thailand is physically the largest of the four regional areas of the Kingdom and consists of seventeen provinces. The region encompasses an area of approximately 169,000 square kilometers. The Northeast is the most geographically unfavored region, beset with many ecological problems, including inconsistent rainfall patterns and poor soils. The short monsoon season from June to October often brings heavy flooding in river valleys and lowlands, but the dry season is long and the prevailing vegetation sparse grass. Many areas suffer from either frequent drought or extensive flooding.

The population of the Northeast now stands at over 18 million. There has been substantial growth in the Thai population during the past half century, though the growth rate for the nation has dropped notably in the past decade. This is due to the success of an effective family planning program. Nonetheless, the population of the Northeast continues to increase at a rate higher than that of the nation overall, possibly reflecting a movement of population to the Northeast in search of new land where very large increases in land under cultivation have been reported. Population density is still low by Asian standards and varies by province in accordance with topographic and soil conditions and economic factors.

The Northeast is the poorest and least developed area of the country with a higher proportion of total population, roughly 80 percent, involved in agriculture than the other regions. Only about 5 percent of the cultivated area of the Northeast is irrigated and the average agricultural income per capita is less than half that of the Central region. Rainfed rice is the major crop of the region. Cassava production only started around 1971, but by 1981 accounted for 36 percent of the cultivated area of the Northeast.

There has been a tendency of past Thai governments to neglect the North and Northeast regions of the country. Attention has been paid to these areas largely when the successes and putative intentions of left-wing governments in neighboring states and manifestations of local discontent led the Thai government to engage in an often haphazard mixture of aid and repression. It was not until 1965 that concern for the Northeast was genuinely shown.

The National Economic Development Board was formed in 1959 (since 1972 the National Economic and Social Development Board--NESDB), and in 1961 the First National Economic and Social Development Plan, covering the six-year period from 1961 to 1966, went into effect. The First Plan allocated funds specifically for the improvement of economic and social conditions in the Northeast./ However, this plan did not directly

address the question of regional income differences or social equity. Development projects during this period were primarily concerned with infrastructural needs such as irrigation, communications and rural roads construction.

The Second National Economic and Social Development Plan included a policy guideline calling for consideration of the need to reduce income disparities and imbalances between the regions in development. The First Plan had provided for some local programs, but these programs aimed primarily at improving relations with rural populations in places of possible communist influence such as the Northeast. Funding for these development programs had been mainly provided by the United States government through the US Operations Mission (USOM) in Thailand.

Important to Thailand's booming economic growth rate in the 1960s and early 1970s were the military and development expenditures throughout the country, of the United States during the Vietnam war era. In the Northeast, described as an area of communist insurgency, underground leftist parties took advantage of grievances over poor economic and social conditions to rally opposition to the government. During this same period the USAID/Thailand mission had a combined staff (American and Thai) of more than 800 persons and, in 1967, an annual budget of \$57 million.

The Third Plan stated specifically that policies would work toward alleviating problems associated with the widening income gap and inequitable distribution of social services. While the Third Plan emphasized the improvement of economic structure and the maintenance of economic stability through increased production, the plan included policy measures on income distribution and attached greater emphasis on social development. The chief strategies of the Third Plan in this respect included the following: reduction of the population growth rate; distribution of economic and social services; and creation of employment opportunities for the people. An important agricultural development project carried out during this period was the National Agricultural Extension Project.

The Fourth Plan included an increase in rural development projects. Among the new projects was the New Village movement directed at remote villages in rainfed areas generally lacking government services. Traditional rural development projects such as those improving infrastructure such as roads and communications and providing electricity were also undertaken.

The Fifth Plan gave high priority to improving distribution of income and government services to disadvantaged areas. The government established the National Rural Development Program in 1981 in order to improve the effectiveness of the government's

rural development efforts. The Northeast Rainfed Agricultural Development Project was also begun during this period.

The prevailing trend in Thai government policy is to give added attention to promoting alternative sources of employment in rural areas. Programs and projects carried out under the Fifth Plan have brought to the government's attention issues and matters which have helped to focus the Sixth Plan. The Plan will seek to provoke actions which will lead to increasing rural income and stimulating rural employment. Similarly, the Thai government is enhancing its support for an industrial policy oriented toward rural industry. Through such a policy, the government hopes to stimulate the development of rural industries through the design of programs aimed at alleviating constraints to the expansion of rural private sector investment.

Roi Et province is located in the south central portion of the Northeast. The southern portion of the province makes up part of the Weeping Plains Prairie (*Tung Kula Rong Hai*), and includes districts Suwannaphum, Phanom Phrai and Kasetwisai. The province is made up of 13 districts and encompasses a land area of 8,299 square kilometers. The population of the province in 1986 was 1.17 million, up from 785,329 in 1970. Though a rural agricultural province, Roi Et is the most densely populated province in the Northeast with a population density of over 140 persons per square kilometer.

The economy of the province is based predominately on rainfed agricultural with 133 thousand land holders farming 2.9 million rai. Rice is the principal crop with both glutinous and non-glutinous varieties planted. Cassava is the second major as it is better able to withstand the droughts common in the province. Rainfall in Roi Et averages less than 1,300 mm each year with the bulk of this falling between the months of May and September. During the months of peak rainfall, the tributaries of the Mun and Chee Rivers often overflow their banks, causing extensive flooding throughout the province.

The Weeping Plains Prairie is a vast plain encompassing ten districts in Roi Et, Sisaket, Mahasarakham, Surin and Yasothon provinces. The Plain, located on the left bank of the Mun River in the Lower Northeast, encompasses 2.1 million rai with a population of 350,000. The soil has a high sand content with little organic matter. The soil is also highly saline with low potential for holding moisture. Yearly rainfall averages for the Weeping Plains are among the lowest for all the Northeast, seldom reaching 1,300 mm.

There have been several development schemes for the Lower Northeast region. The depletion of forested land used for agricultural expansion and decreasing yields have caused

agricultural output to fall and the share of gross regional income to thereby decrease from 17.0 percent of the national income in 1960 to 14.7 percent in 1981. Development plans have targeted the Weeping Plain especially for development of more efficient land use strategies and the protection of deteriorating natural resources.

Many different agencies have been active in agricultural development projects in Roi Et, including USAID, CIDA and the Australian government. The NERAD Project has had two pilot villages (Tambon Taket and Tambon Tae) in Roi Et taking part in on-farm testing of farming systems and rainfed agriculture techniques under study by the project. Of particular interest to farmers in the area are the improved tube wells designed by the project and the culture of fish in rice paddies--a traditional practice now being re-introduced by several agencies, including ARD, the Fisheries Department and several NGOs.

In spite of these projects, per capita income in the province has increased only marginally over the past ten years. The lack of adequate rainfall, the depleted soil conditions and the distance from Bangkok have all contributed to the low rate of development in Roi Et.

DEVELOPMENT IMPACT IN THE NORTHEAST
(SMALL FARMER PERSPECTIVE ON DEVELOPMENT IN NORTHEAST THAILAND)

CONTEXTUAL BACKGROUND

I. INTRODUCTION

The contextual study presents the background and setting for rural development in Northeast Thailand, over a period of fifteen to twenty years. Documents reviewed during preparation of this study include project reports of internationally funded projects, agricultural sector and sub-sector studies and analyses, program and project evaluations, project appraisal reports, periodicals, agro-economic and socio-economic studies, surveys, and academic materials. Documents reviewed related primarily to the strengthening or development of systems to deliver agricultural support services and production inputs to smallholders in Northeastern Thailand. Attention is also given to the development of rural physical infrastructure as it was understood to influence the pattern of agricultural development in the region.

The proposed strategies and objectives of the Thai government's rural development policies and programs are summarized in the context of each five year economic and social development plans. The review begins with the Second Plan (1967 - 1971), and ends with the Sixth Plan (1987 - 1991). The summaries focus on policies outlined in each plan which influenced, or attempted to influence, agricultural development in the Northeast

Major socio-economic aspects are discussed in the context of the principal agro-economic trends which occurred in the Northeast during the period being studied. Agro-economic academicians and researchers, as well as specialists in Northeastern culture and social development at both Khon Kaen University and Sri Nakharin Wirot University/Mahasarakham, were interviewed in order to obtain a cross-section of expert opinion on recent socio-economic developments and current trends which may have had some effect on the development of agriculture in the Northeast.

Changes of Thai government policies through the implementation of the national development plans are discussed in light of their impact on agricultural development in the Northeast. An overview of the major rural development programs promoted through each plan is presented.

National level political-economic changes are summarized, as they occurred during the time period of each national development plan. The effects of these changes on development programs and in particular agricultural development are summarized. Key

economic factors at the national level are pointed out and assessed in terms of their impact on agricultural development in the Northeast. In that rice and cassava have been and continue to be the principal economic crops cultivated in the Northeast, their impact on agricultural development is discussed. The linkages of both of these crops to international market conditions are also discussed.

Finally, the migration of labor and population is discussed, including the movement of refugees into the region; the intra-regional migration due to opening of new lands; and, the export of Northeastern laborers overseas, and subsequent impact of cash inflow from foreign remittances.

II. OVERVIEW OF THE NORTHEAST

PHYSICAL SETTING

Thailand is divided by landforms and drainage into four regions. Each of the regions differs from the other in population, basic resources, natural features, level of social and economic development, and dominant culture. The diversity of the four regions is one of the most pronounced attributes of Thailand's physical setting.

Northeast Thailand is physically the largest of the four regional areas of the Kingdom and consists of seventeen provinces. The region encompasses a total area of roughly 169,000 square kilometers. The Northeast is the most geographically unfavored region, beset with many ecological problems, including inconsistent rainfall patterns and poor soils. Soils are unfertile and the high sand content in many areas leads to excessive drainage. The region consists mainly of the dry Korat plateau with stretches of low hills and shallow lakes. The area averages about 200 meters above sea level. The short monsoon season from June to October often brings heavy flooding in river valleys and lowlands, but the dry season is long and the prevailing vegetation sparse grass. Many areas suffer from either frequent drought or extensive flooding.

Though no region of Thailand is without high rainfall, the Northeast has the least in volume and reliability with annual averages ranging from 800 - 2,000 mm per year. Crops fail on the average of once every three years due to erratic rainfall. The poor retention capacity of soils limits agricultural potential. Agricultural activity is restricted during February through March except in those few areas with dry season water control. Low mountains ring the plateau on the west side and south while the Mekong River delineates much of the eastern rim. The Mae Nam Mun, the largest river within the Northeast, and its tributary, the Chee, empty into the Mekong.

POPULATION

The 1947 census reported a population of 6.2 million people in the Northeast which increased to about 14.8 million in 1976. The population in 1987 is over 18 million. A summary of population growth in the Northeast is given in Table 1. There has been substantial growth in the Thai population during the past half century, though the rate has dropped notably during the past decade. This is due to the success of an effective family planning program. Nonetheless, the population of the Northeast continues to increase at a rate higher than that of the nation as a whole, possibly reflecting a movement of population to the Northeast in search of new land where very large increases in

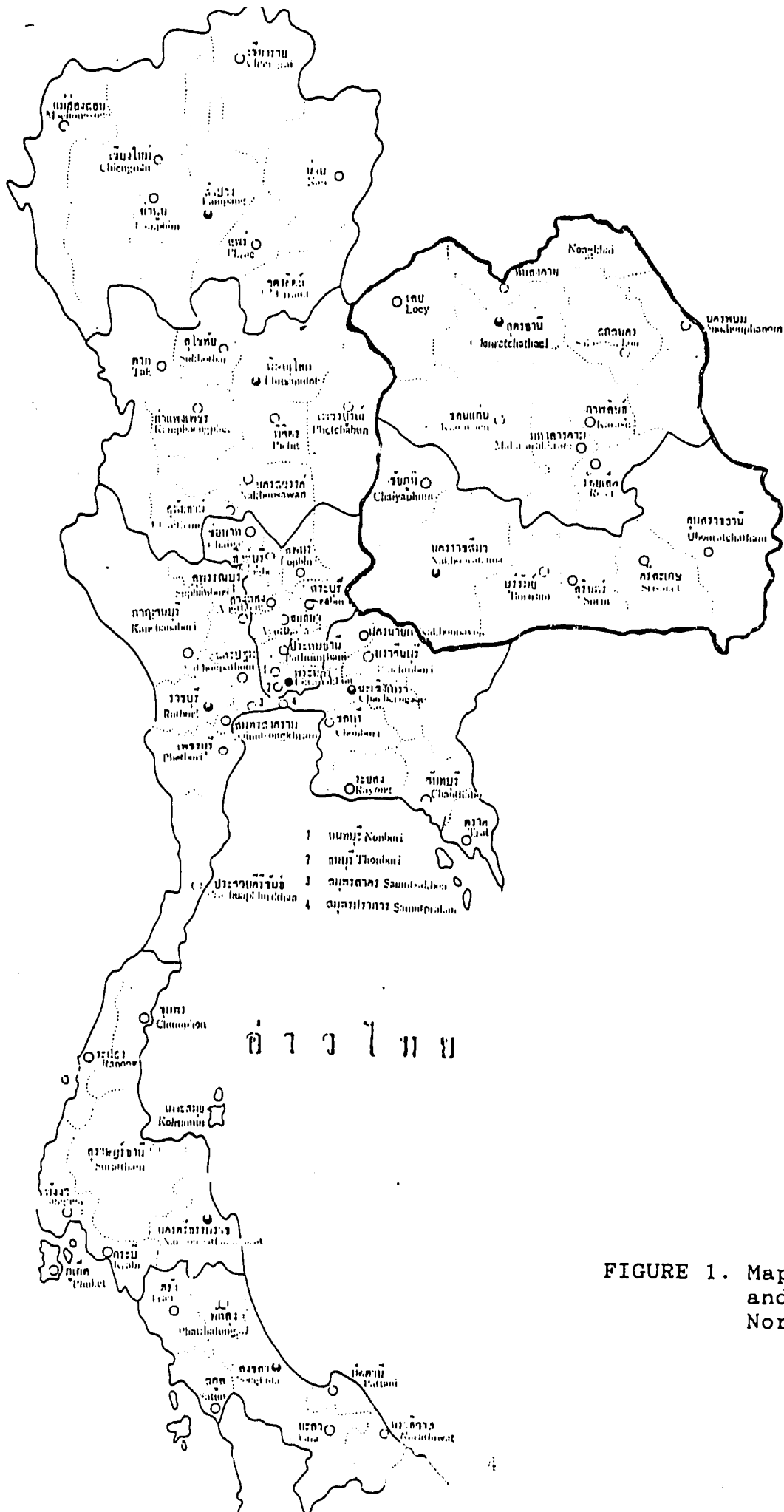


FIGURE 1. Map of Thailand and the Northeast

TABLE 1. Estimated Population, Density and Proportion of Total Population for Northeast Thailand, (1920 - 1986)¹

Year	Population (M)	Density (/sq km)	% of Total Population
1920	3,090.8	19	33
1930	3,927.0	25	33
1940	5,209.6	35	34
1950	6,698.8	42	34
1960	8,781.0	55	33
1970	11,700.4	73	36
1986	18,000.0	106	33

land under cultivation have been reported. Land classified as farmland has increased in the region from 47.5 million rai² in 1975 to 54.1 million rai in 1984 with a corresponding decrease in land classified as forest land.

Population density is still low by Asian standards and varies by province in accordance with topographic and soil conditions and economic factors. The average population density of the Northeast is 60 - 110 persons per square kilometer. In 1984, the average farm size in the Northeast was approximately 27.37 rai, though the holdings of most farmers were much smaller than this; the Thai government had stated ten years earlier that 60 percent of all farmers had holdings of less than 25 rai.³

Important provincial towns include Ubon Ratchatani in the east, Nakhon Ratchasima in the southwest, Udorn Thani in the north, and Khon Kaen in the mid-west.

¹1920 to 1960: Larry Sternstien, "A Critique of Thai Population Data", Institute of Population Studies, Perspective on Thai Population in Institute of Population Studies Research Report #11, 1974. 1970 to 1986: National Statistics Office Population and Housing Census.

²1 rai = 0.16 hectare or 0.395 acre

³Agricultural Statistics of Thailand Crop Year 1985/86, Center For Agricultural Statistics, Office of Agricultural Economics, Ministry of Agriculture and Cooperatives, Bangkok, Thailand, Agricultural Statistics No. 328, 1986.

AGRICULTURAL SETTING

The Northeast is the poorest and least developed area of the country with a higher proportion of total population, roughly 80 percent, involved in agriculture than the other regions. Only about 5 percent of the cultivated area of the Northeast is irrigated and the average agricultural income per capita is less than half that of the Central region. Rainfed rice is the major crop of the region, including both glutinous and non-glutinous varieties. In 1981, 42 percent of the total agricultural land area was planted in glutinous rice and only 11 percent in non-glutinous varieties. Though there is virtually no international market for glutinous rice and the local market price is significantly lower than that for the non-glutinous varieties, Northeastern farmers have historically produced this type for their own consumption, supplementing the staple with wild fish, small animals, leaves, and other flora found in the forests.

Cassava production only started around 1971, but by 1981 accounted for 36 percent of the cultivated area of the Northeast. In 1983, cassava represented over 43 percent of the cash farm income for crops produced by farmers in the Northeast. Kenaf and jute are also planted but their combined area accounted for only 6 percent of the planted area in 1981. The cultivation of cassava has taken over much of the lands previously used for cultivation of these latter two crops due to declining prices for heavy natural fibers.

CULTURAL BACKGROUND

The indigenous Northeastern Thai are more closely related to the Lao in culture and dialect rather than to the politically dominate Central Thai. However, the region is not culturally homogeneous. There are Thai-Khmer in the southern part and Thai-Korat in the southwest. Even among the Thai-Lao there are distinct cultures and dialects. The numerous ethnic groups each have their own unique festivals and religious days and customs. These cultural and linguistic differences are proudly acknowledged by the people of the Northeast when pointing out the differences between their area and other regions of Thailand.

Though the Central Thai dialect is the culturally dominant and official government language, local Northeastern dialects remain the languages of the home and rural community. Nonetheless, the government tends to be identified with the Central Thai and government representatives, regardless of regional origin, often adopt a Central Thai perspective which may effect how they see their role and how their role is perceived by those who interact with them.

INTERNAL MIGRATION

Though population distribution among the regions of Thailand has remained relatively stable during the last half of the twentieth century, the rapid growth of Bangkok and the absolute gains in urban population notwithstanding, this regional stability gave way during the 1970s to more pronounced patterns of internal migration. This migration has taken two forms: movement into Bangkok and a few larger provincial towns, motivated by a quest for work or access to higher education; and movement within rural areas, related to the availability of land or employment. The diminishing availability of cultivatable land in the Northeast has been pushing migrants into the few remaining upland and forested areas of the region or to Bangkok.

In the 1960s and 1970s, a few towns in the North and Northeast mushroomed in size due to the American military presence linked to use of Thai military bases during the Vietnam War, and the extensive counterinsurgency activities co-sponsored by United States and Thai agencies in those areas and elsewhere. There was a significant migration from rural areas to these sites by those seeking work on the American bases as semi-skilled workers and laborers.

Seasonal migration also plays an important role in supplementing rural incomes in the Northeast. As a result of the lack of any significant off-season employment opportunities in the region, many Northerners are forced to travel to Bangkok or other provinces in search for work once they have harvested the annual rice crop. These migrant laborers work in the sugarcane fields of Kanchanaburi, the pineapple fields of Petchburi and Rayong, and on the many fishing boats in the Thai Gulf. Many more work as laborers, taxi drivers, prostitutes, and factory workers in Bangkok. Most return to their home provinces in April, in time for the Northeastern New Year's Day celebrations and the beginning of the monsoon.

DEVELOPMENT POLICY

There has been a long tendency of past Thai governments to neglect the North and Northeast regions of the country. As can be seen in Table 2, both regions, though encompassing much greater land areas than the Central and Southern regions have invariably ranked behind the others in share of GDP. Attention has been paid to these areas largely when the successes and putative intentions of left-wing governments in neighboring states and manifestations of local discontent led the Thai government to engage in an often haphazard mixture of aid and repression. Perhaps even more neglected (until the mid-1960s) than the Northern Thai have been the peoples of the Northeast. Given the more limited agricultural resources of the Northeast,

TABLE 2. Inter-Regional Inequalities--Share of GDP by Region (%)⁴

Region	1960	1966	1970	1976	1980
Central	48.7	52.4	56.8	58.1	50.1
North	15.6	16.4	15.1	15.4	17.1
Northeast	19.1	17.8	15.7	14.7	17.7
South	16.6	13.4	12.4	11.9	15.1

neglect, corrupt administration and heavy taxation at various times in its history have been a greater burden on the rural population of the Northeast than that of other Thai regions. It was not until 1965 that concern for the Northeast was genuinely shown.

Developments in Vietnam and Laos during this period and occasional manifestations of farmer dissatisfaction led to renewed interest by the central government, which undertook programs of community and agricultural development coupled with counterinsurgency action, beginning the 1960s.

⁴1960-1976 cited in T.D. Fuller, et. al. Migration and Development in Modern Thailand, Social Science Association of Thailand, 1983. 1980 calculated from NESDB Regional Income Accounts.

III. ECONOMIC BACKGROUND

The Thai economy continues to function much along the open market lines that have characterized it since the mid-1800s. It remains capitalistic in orientation, largely operated by the private sector with supportive infrastructure furnished by the public sector, and some governmental participation in production through a limited number of state enterprises. Different political leaders have called for shifts in emphasis or direction within the system, especially since the 1970s, when internal stability seemed to hinge in part on government response to growing rural-urban and occupational group income disparities. The major response to this situation has been efforts to infuse funds into problem areas (overwhelmingly rural) chiefly through projects in the public sector outlined in national economic and social developments plans. However, the conservatism of the often self-centered bureaucracy, largely based in Bangkok, and its lack of any sustained interest in the rural sector have often acted to impede such change.

The large concentration of influential wealthy business and associated military-political interests in the Bangkok area has meant that government investments in infrastructure development, economic and social, would not be neglected in the Central region. In contrast, investment in the Northeast--except for certain enterprises that could be more profitably operated locally, such as cassava processing--had and has little attraction for private capital despite special government incentives.

IV. NATIONAL ECONOMIC AND SOCIAL DEVELOPMENT BOARD AND PLANS

In 1959, the government of General Sarit Thanarat established the National Economic Development Board (since 1972 the National Economic and Social Development Board--NESDB), and in 1961 the First National Economic and Social Development Plan, covering the six-year period from 1961 to 1966, went into effect. The First Plan allocated funds specifically for the improvement of economic and social conditions in the Northeast. However, this plan did not directly address the question of regional income differences or social equity. Development projects during this period were primarily concerned with infrastructural needs such as irrigation, communications, and rural roads construction.

SECOND FIVE-YEAR PLAN (1967 - 1971)

The Second National Economic and Social Development Plan included a policy guideline calling for consideration of the need to reduce income disparities and imbalances between the regions in development. The First Plan had provided for some local programs, but these programs aimed primarily at improving relations with rural populations in places of possible communist influence such as the Northeast. Funding for these development programs had been mainly provided by the United States government through the United States Operations Mission (USOM) in Thailand.

The Second Plan introduced regional planning in an attempt to accelerate development in the more remote areas of the nation. It was also stated that the policy of rural development would receive particular emphasis through a wide spectrum of programs designed to lessen the severe inequalities between different regions of the country and to build up the agricultural base of the economy. The government placed major emphasis on the continuation and expansion of irrigation projects carried out during the First Plan and the establishment of Regional Agricultural Research Centers for the promotion of cash crops such as rubber, rice, maize, cotton, and oil palm.

The promotion of farmers organizations such as specialized cooperatives was another program of the Second Plan with the aim of encouraging farmers' participation in the development process. The newly formed Bank for Agriculture and Agricultural Cooperatives (BAAC) expanded its services to include the provision of agricultural credit for productive investment.

In the 1960s gross domestic product (GDP) grew at an average annual rate of 8.3 percent. Important in this expansion was the real growth in agriculture, which averaged 5.7 percent a year, well above the population growth rate. Contributing to this was the steady expansion of cultivated land (averaging about

4 percent a year), the gradual extension of irrigation, and the spread of commercial crops other than rice.

Also important to Thailand's booming economic growth rate in the 1960s and early 1970s were the military and development expenditures throughout the country of the United States during the Vietnam war era. Although the United States had stationed over 45,000 troops in the country by 1968, their mission was not officially acknowledged in order to forestall possible communist retaliation on the host country. Communist activities in Malaysia and Laos had already begun to affect the domestic situation in the South and the Northeast in the 1950s, and developments in the 1960s presented problems of increasing magnitude. In the Northeast, described as an area of communist insurgency, underground leftist parties took advantage of grievances over poor economic and social conditions to rally opposition to the government. During this same period the USAID/Thailand mission had a combined staff (American and Thai) of more than 800 persons and, in 1967, an annual budget of \$57 million.⁵

OFFICE OF ACCELERATED RURAL DEVELOPMENT

The outbreak of covert armed insurgency in 1965 led to larger aid inputs and the establishment by the Thai government in 1966 of the Office of Accelerated Rural Development (ARD) which was initially financed chiefly by grants from the United States through USOM, now USAID. This agency's primary responsibility was to provide basic infrastructure to rural areas, especially those where security problems might develop. The program initially encompassed the provinces along the Mekong river bordering Laos and Cambodia but later expanded to include almost 50 provinces throughout Thailand. ARD teams were often the first government officials to penetrate many of the more remote areas and these teams provided primary health care and potable water to villages previously inaccessible to traditional government development agencies. ARD's efforts opened many areas of the Northeast to the social services offered by the government. The construction of these roads allowed an increase in the building of schools, health centers and offices of other agencies. Markets for the farmers' crops also expanded as did sources of inputs for both the home and farm.

⁵Partners in Progress, USAID/Thailand

Through the mid-1980s, the ARD program has resulted in the construction of a large number of feeder roads, bridges, small reservoirs, spillways, wells to provide drinking water, and the provision of local health facilities. In recent years a small percentage of the ARD budget has also gone toward agricultural extension in their target areas. ARD agents have organized youth and women's groups and provides training in such rural employment generating skills as weaving, sewing, and the manufacture of simple farm implements. Through their Employment and Income Development Unit, ARD has encouraged the formation of village cooperative stores, whereby village members purchase common consumer items and agricultural inputs wholesale in the provincial capital for resell in the local community, the profits then going for villages projects.

The strategy of the First and Second Plans emphasized the provision of basic economic and social infrastructure services such as the construction of highways, irrigation facilities and power systems. While this strategy contributed significantly to the increase in the growth rate of production during that period, the nature of that growth led to further income disparities among various income groups and regions of the country. This income disparity could be partly explained by the fact that the development strategy used, emphasizing economic efficiency and growth rate of income and production, neglected the distribution of the benefits of growth to most of the population. Those who had access to the economic and social infrastructural facilities provided by the government gained the most, while those in remote areas which had received little attention from the government, due to the fact that the national efficiency criteria ruled out such public investments, lost out.

Though the construction of roads opened the Northeast to commercialization, many small farmers did not benefit from this expansion of commerce as most had no marketable commodity to offer for trade. Traditional producers of non-glutinous rice and gatherers of wild flora and fauna from the forests, these farmers saw their forest lands opened to immigrants and traders from other areas.

Thanom Kittikhachon took over as Prime Minister upon the death of Sarit in 1963 and remained in power during the period of the war in Indochina and an era of increasing American influence in Thailand. The government proclaimed a new constitution in June 1968, but martial law, imposed in 1958, continued in effect. Elections were held in 1969 and Thanom's United People's Party returned the largest delegation of the thirteen parties represented in the lower house. As local dissatisfaction with

the government's growing ties with the war in Vietnam and Laos spread, Thanom carried out a coup against his own government in 1971, suspending the constitution. A military junta held executive and legislative authority in the new government led by Thanom.

THIRD FIVE-YEAR PLAN (1972 - 1976)

Bureaucratic inefficiency as a result of official diseconomies expanded greatly during the Thanom period and discontent with the regime broadened to include United States support for Thanom and the increase in Japanese economic influence that government policy was said to promote. Opposition to the military dictatorship included the civilian political elite, students, workers, and members of rival military factions. This opposition grew and large demonstrations became common in Bangkok until October 13, 1973, when over 250,000 rallied at the capital's Monument to Democracy. The following day troops fired on demonstrators, killing many. King Bhumibol Adulyadej then stepped in and allowed Thanom and two of his accomplices to leave the country. Sanya Thammasak was appointed interim Prime Minister until elections were held.

The interim government held elections in January, 1975, but no single party gained a majority of seats in the House of Representatives. The Democratic Party, headed by Seni Pramoj, formed a government which lasted only one month. In March 1975, Kukrit Pramoj, Seni's brother and leader of the small Social Action Party, was able to put together a coalition which proposed such reforms as decentralizing economic planning in order to put development into the hands of locally elected committees. However, measures of this nature were repeatedly defeated as members of parliament rallied to protect their vested interests.

The overthrow of the Thanom regime also brought on more vocal questioning of Thailand's ties with the United States. Nationalist sentiment--often expressed in terms of anti-Americanism--ran high among students, who protested alleged American involvement in domestic Thai affairs and called for the speedy withdrawal of all United States forces. American use of a Thai air base as a staging area during the Mayaguez incident with Cambodia in March, 1975, added to the deterioration of United States-Thai relations. The changed geopolitical picture in Southeast Asia refocused Thai attention on the problem of the United States military presence. On the one hand, it was recognized that Thailand could not be reconciled with its communist neighbors as long as United States personnel were stationed on Thai soil. On the other hand, the Thais realized that at least partial retention of that presence was needed as a guarantee of American willingness to defend the country in the event it was attacked. Increasingly during this period, Thai

officials, especially in the armed forces, expressed concern over the sincerity of the American commitment.

The Third Plan stated specifically that the government would follow development policies that would address problems related to the widening income gap and inequitable distribution of social services. It called for regional planning and the preparation of a list of development activities by sector. While the Third Plan emphasized the improvement of economic structure and the maintenance of economic stability through increased production, the plan also included policy measures on income distribution and attached greater emphasis on social development. The main additional strategies of the Third Plan in this respect included the following: reduction of the population growth rate; distribution of economic and social services; and creation of employment opportunities for the people.

Regional agriculture development projects included a shift in the policy of irrigation development as followed during the First and Second Plans. Irrigation development policy during the Third Plan was aimed at reducing the construction of large dams and concentrating on the improvement and expansion of on-farm water delivery systems. The government attempted to improve and expand water delivery systems through a land consolidation scheme and the construction of ditches and dikes at the farm level. Both of these schemes feel short of expectations.

NATIONAL AGRICULTURAL EXTENSION PROJECT

In line with the Plan's emphasis on increasing agricultural production, the National Agricultural Extension Project (NAEP) was begun in 1977 as a joint project of the Royal Thai government's Ministry of Agriculture and Cooperatives (MOAC), the International Bank for Reconstruction and Development (IBRD), and USAID. The Training and Visit (T&V) System, upon which NAEP was based, was developed and tested under the sponsorship of IBRD, and had been instituted in varying degrees of comprehensiveness in several countries. However, Thailand was the only country to initiate the project throughout the nation in such a short period of time (1977 - 1982). The government implemented the T&V System in all provinces of Thailand. This strengthened the headquarters and the field level organization of the Department of Agricultural Extension (DOAE).

As a technology-driven idea, the T&V System was developed to meet conditions in those countries where agriculture is pursued largely by traditional methods. Traditional agricultural methods often do not

employ all technological and material resources available to the farmer and proponents of the T&V System saw this causing a back-log of simple technological improvements, generally involving the intensive mono-culture of cash crops, that could bring tangible gain with a minimum expenditure of money and involve little risk. Consequently, the aim of NAEP and the T&V System was to quickly train and place a large number of extension agents in villages to pass on new technologies to farmers. In order for the T&V System to work effectively it was necessary that: the needed and relevant technology be at hand; the extension agents be fully familiar with the technology; and the extension agents be able to communicate their message effectively and often.

The speed with which this project was carried out and the need to train thousands of new extension workers taxed the administrative and management capacity of DOAE and exceeded the capacity of the nation to supply necessary qualified personnel to fill all the positions. The number of pre-NAEP DOAE field personnel totalled 1,165. The project called for a seven-fold increase in this number. Most the positions were new in concept and manned by inexperienced young vocational institute graduates. The new duties and responsibilities of the remainder of the field positions were so new and different from pre-NAEP conditions that they were in effect also new positions.

As the project was implemented, each agent was to be responsible for roughly 1,000 farmers, visiting representative contact farmers every two weeks. These contact farmers tended to be the better-off farmers in the area--those able to take risks with new crops that poorer farmers were unable or unwilling to do. The T&V System was a concept based on the transfer of technology using the top-down approach to extension. It was not a system of rural development and most farmers had no input as to the relevance of the technology presented. The T&V System originated on large-scale irrigation schemes where concentration on a single-crop was possible. Its appropriateness for a country-wide program with diverse agro-ecological regions and farming systems was questionable. The main beneficiaries of this project were a few contact farmers and the Department of Agricultural Extension.

The Third Plan also included several projects designed to solve the lack of legal title to land, alleviate the shortage of land for cultivation and to develop and rehabilitate land in

general. At the end of 1975 however, the government had granted land title certificates to land holders covering only about 11 percent of the total cultivated area.

During the 1971 - 1976 period, the average size of farm holdings decreased from 16 rai in 1973 to 14.7 rai. During this same period the number of landless farmers also increased. The tenancy problem continued to be acute, particularly in the Central Region where tenants accounted for about 200,000 families or 41 percent of the total number of tenants in the Kingdom.

Tenancy has been much less of a problem in the Northeast as farmers there put a higher premium on ownership of land and are less likely to risk mortgaging their property. In addition, subsistence farmers producing glutinous rice under rainfed conditions are not as likely to use costly inputs such as fertilizer and pesticides as the producers of non-glutinous rice under the irrigated conditions of the Central Plains. Yields are naturally lower but the risk is also much less.

The government estimated during the time of the Third Plan that there was a considerable area of land that was not well suited for production. This included roughly 8 million rai of saline soil areas in the Northeast. In addition, some areas lacked a definite land development policy. This included the *Kula Rong Hai* Plain in the Northeast which covers an area of roughly 1.8 million rai. The Plan noted that in these areas, the formulation of a comprehensive land development program was required so that the people could cultivate such land and develop other occupation skills in order to increase their income.⁶

However, implementation of the proposed strategies faced similar problems as earlier plans due to the concentration of executive control in the hands of senior government staff in Bangkok and the lack of delegation of authority, even concerning decision making for minor matters--a characteristic found throughout the government for many years. At least partly as a consequence, an insensitivity to provincial and local rural development issues existed, and such issues tended largely to be slighted.

Kukrit's government (1975 - 1976), was plagued by labor unrest and rising prices. The economic boom that had spurred employment and produced an apparent prosperity in the 1960s slowed with the phasing out of United States military expenditures in Thailand. The country's impressive rate of

⁶The Fourth National Economic and Social Development Plan (1977 - 1981), National Economic and Social Development Board, Office of the Prime Minister, 1977.

economic growth during the 1960s was insufficient to keep pace with the growth of the population, which increased from 20 million in 1960 to 35 million in 1970 and to an estimated 46.2 million in 1979. Agricultural yield per unit area remained static, but agricultural production kept pace with population growth during the 1960s and 1970s due to the doubling of the amount of land under cultivation during that period. Arable land reserves were being used up by the mid-1970s, however, except in the southern peninsula.

FARMERS' MARKETING AND WAREHOUSING ORGANIZATIONS

It was during this period that the Ministry of Agriculture and Cooperatives established the Marketing Organization for Farmers (MOF). This organization, financed by export taxes on rice and sugar, was formed to serve as a central market for farmers. It was also designed to be a source for fertilizers, pesticides, seeds, and other farming inputs.

The Public Warehouse Organization (PWO) was established to serve a similar function as the MOF in the trading of commodities. However, both MOF and PWO have functioned inefficiently, with management of manpower and supervision of funds lax in both organizations. Their activities have been criticized frequently and are considered futile, as a result of inadequate planning and lack of detail in identifying functions assigned in the area of agricultural commodity marketing. Neither organization has received guidance from its respective ministry in developing long-term policies or plans for the efficient deployment of resources and personnel. As a result, both units lack stability and the ability to develop expertise in their own specialized tasks and learn little from experience. For agricultural commodity marketing, MOF's task has been to support or guarantee the price of paddy and upland crops whereas PWO's basic work has been to support the price of agricultural produce and sell cheap milled rice to the Internal Trade Department's retail shops.

It has been suggested that the organization of both organizations be carefully studied and recommendations made for their modernization, with the assignment of new and more action-oriented tasks. For example, MOF should be given the responsibility for buying agricultural produce, glutinous rice in particular, from remote areas and subsidize the cost of this activity on a contract basis. Purchasing sites

should be selected in collaboration with other agencies operating at the field level. Most importantly, MOF should clearly identify itself as not being a competitor of middlemen in locations which already have enough traders. It should, however, take on a role of providing competition in those areas with too few middlemen. In addition, the MOF should place more emphasis on its role of obtaining production inputs for sale to rural farmers, especially fertilizers, supplying this important item in the provinces in strong competition with private firms. In this way it will provide rural farmers with measurable benefits.

Similarly, the PWO should decentralize, basing more operations at the rural level, in order to efficiently sell glutinous rice in the North and Northeast. Both organizations could be in positions which would effect an improvement in price stabilization methods, improve buying and selling at the farm level, improve methods of market data collection and dissemination, and improve methods of transportation of traditional and non-traditional commodities.

RURAL EMPLOYMENT GENERATION PROGRAMS

In an attempt to alleviate some of the growing problems facing the rural agricultural sector, Kukrit created the Rural Public Works Program in 1975 with a budget of over $\text{฿}2,500$ million⁷ to help create employment in rural areas during the dry season, while also strengthening the infrastructural base of rural localities. This program financed the building of many small spillways, reservoirs, bridges, and roads. Local villagers were hired to work on these projects in their own villages during the dry season. Many of the construction projects funded under this program were ill-designed and did not last through the next rainy season but did provide income to rural families during the season when agricultural activities were minimal. Village head men also gained much in power and prestige through this program as the government funneled project funds into the villages through them. Many of the roads constructed in the Northeast during this period are still referred to as "Kukrit Roads" by villagers.⁸

⁷US\$1.00 = 25.7 Baht

⁸Communication with staff at The Research and Development Institute, Khon Kaen University.

The Rural Public Works Program was extended in 1976, though with a name change to the Tambon⁹ Development Program. With a budget of B3,500 million, this program had similar aims as its predecessor--the promotion of rural employment during the dry season and the construction of public works. In addition, this and similar projects attempted to promote the formation of village groups where the villagers would work together and gain management and cooperative skills.

During 1971 - 1974, the sharp rise in export prices of many major agricultural commodities and accompanying increases in domestic prices resulted in additional money income for farmers, particularly those marketing paddy, rubber, and maize. The additional income farmers gained during 1971 - 1973 was roughly B10 billion. Although this improvement in income distribution helped improve income distribution in favor of the rural sector to a certain extent, farmers did not fully benefit from this gain in prices due to government fiscal and export control measures designed to protect urban consumers when export prices increased significantly.

During 1974 - 1976, however, the level of external demand diminished, resulting in a decrease in export prices of major agricultural commodities. The farm-gate price of paddy decreased from an average of B2,151 per ton in 1974 and B2,200 in 1975 to only B1,800 in early 1976.

Though the real rate of annual growth during the Third Plan period was 6.2 percent (against a projected 7 percent), the interval was characterized by an increase in the economic disparity between the regions and there was no reported improvement in the high degree of inequity in income between occupational groups. During preparation of the Fourth Plan, emphasis was again given to programs that would help equalize incomes and bring a better balance in regional development. Another important consideration during this period was the expected nearly 3 percent growth rate of the labor force during the 1980s as a result of the high birthrate in the 1960s, which would require faster generation of employment opportunities.

FOURTH FIVE-YEAR PLAN (1977 - 1981)

The start of the Fourth Plan coincided roughly with General Kriangsak Chamanan's becoming prime minister in November 1977. The new government pledged to improve rural infrastructure and

⁹A group of villages used as an administrative unit in the local government system of Thailand.

the income of the farmer, but the following year's budget--for fiscal year October 1, 1978 to September 30, 1979 (FY 1979)--gave no evidence of any major shift in existing development strategies. Total development expenditures increased about 120 percent, but the share of economic services, in which the largest appropriations were for agriculture and road construction, declined to 19.5 percent compared with 21.2 percent in FY 1977 and 29.8 percent in FY 1970. However, in November 1978, Kriangsak announced a major revision of the Fourth Plan calling for a 29 percent increase in the induction of foreign investment capital during the final three years of the plan. The multinational consultative group for Thailand, which included the Asian Development Bank, the International Finance Corporation, the Organization for Economic Cooperation and Development, the International Monetary Fund, and the United Nations Development Program, increased their support for the additional required borrowing.

Though inflation accounted in part for the need for increased funds, the revision of the Fourth Plan also included an increase in rural development projects. Among the new projects was the New Village movement directed at remote villages in rain-fed areas generally lacking government services. Villagers were to be aided with inputs and technical help in carrying out projects they chose themselves, to improve or build roads, schools, sanitation facilities, wells for potable water and the like. Traditional rural development projects such as those improving infrastructure such as roads and communications and providing electricity were also undertaken during the Fourth Plan. It was anticipated that the large scale of these undertakings would eventually raise the standard of living for a large number of rural families.

Some of the Bangkok poor and rural farmers living below the poverty line in the countryside were exhibiting a growing awareness of the existence of regional, social and economic disparities. Extensive road construction during the previous decade not only opened the Northeast to the influence of the central government but also exposed the people of the Northeast to the higher living standards enjoyed in Bangkok and other areas of the country. Rural communities were also experiencing the growth of a local business class profiting from the uneven growth of commercial agriculture. Conscious of the relevance of this for continued internal political stability, the government of Kriangsak was evidencing a growing concern with the problem of rural poverty.

The very great authority possessed by the government departments headed by civil bureaucrats and their relative independence in handling their own affairs that also characterized the governmental structure had resulted in duplicating development efforts by different agencies. For

instance, several different bodies were concerned with rural road construction, land development, land administration, and the development of potable water supplies for rural villages. Departments tended to look out for their own interests, and cooperation and coordination of efforts had not always been close. Departments also exerted pressure to influence budget allocations for development, which resulted in wasteful expenditures and a diminution of the government's ability to use available resources to full advantage. Actual disbursement of funds for implementation of public sector development projects suffered and during the Third Plan reached only slightly more than 70 percent of usable funds. In early 1977, more than 1,000 fully funded projects remained uncompleted. Foreign economic experts noted that programs aimed at the poorer segments of the population--agricultural research and extension services, development of on-farm irrigation, construction of rural roads, and provision of potable water and health services--seemed to suffer most, along with programs established for the more remote and poorer parts of the country.

At the same time, the interests of urban labor often directly opposed those of Thai farmers who composed 75 percent of the labor force. Farmers for example, continued to be hurt by the long-term government policy aimed at keeping the rice price low for the benefit of urban consumers. Despite much lip service given to the importance of agriculture, agricultural appropriations in the operating budget remained at about the same level in the late 1970s, and agriculture was becoming an increasingly difficult way of life for the ordinary farmer. The poor farmers on the central plain were troubled by the high price of fertilizer and other inputs, land scarcities, and high cost, open-ended rental contracts that impeded long-term planning and in drought years left them nearly destitute. Farmers in the Northeast, where poor soils and arid conditions made for marginal production, were often chronically in debt.

REFUGEES

Although Indochinese refugees first began arriving in Thailand in mid-1975, after the collapse of the American backed regimes in Cambodia, Laos, and South Vietnam, the greatest influx began in 1979, following the Vietnamese drive into Cambodia which forced out the Khmer Rouge under Pol Pot. It was during this period that the refugee population in Thailand grew to over 300,000 and there was worldwide concern about the predicament of these people and the host nation.

Thailand has long been sympathetic to the plight of refugees, though often at great cost both in

economic and political terms. The large populations of the refugee camps along the Lao and Cambodian borders have displaced Thai villagers and strained an already weak system for the delivery of limited essential goods and services. In addition, particularly along the Cambodian border, activities by various resistance groups have irritated attempts by local villagers to carry on traditional agricultural pursuits.

The Thai government, in concert with local and international agencies, has had on-going projects aimed at lessening the impact of the presence of refugees and the tense conditions along the border. Organizations such as the International Committee of the Red Cross, the Catholic Organization for Emergency Relief for Refugees, the UN system and others, have not only provided necessary services for those people in the camps but have also initiated programs to help alleviate the suffering caused to local Thai villagers. The Thai government has been especially aware of the services provided refugees by international organizations and has worked hard to counter feelings of resentment from the local Thai population.

As of May 1987, over 559,000 refugees had transited Thailand since 1975 and there are now over 116,000 Indochinese refugees officially registered in United Nations assisted camps.¹⁰ Though the number of refugees is declining, there is increasing concern among the Thais that the rate of resettlement to third countries has slowed considerably.

In early 1980, after holding office for nearly two and one-half years, Kriangsak found his position precarious. He conducted foreign policy against a backdrop of concern that the Vietnamese offensive in Kampuchea might spill over into Thailand or might push large numbers of additional refugees across the border. Domestic problems were equally troubling. His much touted "Year of the Farmer" (1979) had yielded only marginal results, and the administration was accused of economic mismanagement by opposition leaders speaking for discontented segments of urban labor and student groups. Growing inflation marked by rapidly mounting energy costs prompted mass rallies of workers, housewives, and fisherman in Bangkok in February.

¹⁰United Nations High Commission for Refugees

FIFTH FIVE-YEAR PLAN (1982 - 1986)

The Fifth Plan gave high priority to improving distribution of income and government services to disadvantaged areas. The National Rural Development Program was established in 1981 in order to improve the effectiveness of the government's rural development efforts. The National Rural Development Commission was formed as a single structure with uniform procedures responsible for the coordination of the previously disparate projects and activities of many government agencies.

DECENTRALIZED DEVELOPMENT MANAGEMENT PROJECT

The USAID sponsored Decentralized Development Management Project (DDMP) worked closely with the World Bank financed Rural Employment Generation Program, part of the broader National Rural Development Program, whereby funds were made available directly to local Tambon Councils for sub-projects of the Councils' choosing such as spillways, canals, roads, and bridges. The councils carried out the projects themselves, hiring local labor and local contractors. In an attempt to truly decentralize the program and move decision-making closer to the would-be recipients, the project trained low-level officials in project selection, management, and planning, while agency officials were involved only as technical advisers and inspectors. USAID, UNDP, and CIDA sponsored trainings targeted at Tambon Working Groups which were seen as a bridge between the government and the elected leaders of villages and Tambons. The working groups were to help the villagers understand the projects and services available to them through the system and advise them in making requests which would best solve their particular problems.

This project was similar to "make-work" projects carried out by previous governments, and vulnerable to the criticism that projects of this sort cause villagers to feel that as the government initially financed the project, the government should in turn finance the up-keep of the finished structure--whether it be a road or a bridge--and that projects of this sort stifle local responsibility. As is often the case in government supported self-help projects, the fact that participants receive direct benefit in terms of wages for working on projects built for them can foster dependency rather than self-reliance. However, the participation of the local village council in the overall process set in motion a process in many villages that has increased village participation in

government to this day. The confidence gained by many of the councils in project planning and implementation has strengthened the role of the villages in the local political process through the village, district and provincial levels of government. The election of local representatives to take part in governmental activities outside the villages has also raised the level of political expectations of the villagers. This is a new phenomenon in local Thai politics.

NORTHEAST RAINFED AGRICULTURAL DEVELOPMENT PROJECT

It was also during this period that the Northeast Rainfed Agricultural Development Project (NERAD) was begun. This project, financed chiefly through USAID funding, was sponsored by the Ministry of Agriculture and Cooperatives (MOAC), the Department of Technical and Economic Assistance (DTEC), USAID, and the University of Kentucky.

Acknowledging the fact that many projects carried out in the Northeast in the past, emphasizing the introduction of new technology to farmers, failed in their attempts to bridge the gap between the experimental station and the small-holder, the NERAD project began in 1982 to determine if less risky farming systems could be found to help farmers stabilize their family's food supply while also increasing cash incomes. Due to the diversity of local farming practices and the lack of adequate investment capital, most Northeastern farmers have seldom been willing to risk new crops or production systems unless the new method is almost certain to be better every year. While still a technology-driven approach to development, the NERAD project approach was different from that of the National Agricultural Extension Project's utilization of the T&V System in that there was more stated concern for dialogue with recipient villagers.

With this in mind, the NERAD project emphasized the need for scientists from all departments of the Ministry of Agriculture to jointly study the existing farming systems of nine representative Tambons of four Northeastern provinces, including Chaiyaphum, Sisaket, Nakhon Phanom and Roi Et (the two Tambons in Roi Et are Tambon Taket and Tambon Tae), to formulate proposed changes to improve farm production and profit. These proposed systems were then offered to pilot villages for on-farm testing. When farmers rejected the new methods as being too risky, more study and

research was carried out until villagers were convinced that real gains were possible from adopting the proposed changes. In addition, emphasis was placed on collaboration with farmers and villagers so that production methods could be found that not only increased incomes but also complemented the existing social structure and value systems.

As a primary objective of the project was the development of less risky farming systems that would be acceptable to small-holders, there was an early and continuous call for increasing the involvement of farmers and villagers in the planning and implementation of project activities. The Tambon Agricultural Development Committees decided the implementation activities for each year. Improved planning at the level of the Tambon Councils was one of the major contributions of NERAD and it is to NERAD's credit that project officials recognized the problems with top-down development strategies and that they encouraged villager participation so that local needs could be addressed. Study tours for villagers, where villagers were given the opportunity to exchange ideas with farmers from other areas were important in this regard as was the increased utilization of on-farm trials which enhanced the dialogue between researchers and farmers.

During implementation of the project it was observed that the Project Paper, the result of an effort involving at least 100 persons, was a very ambitious and often confusing document. The complexity of the project led to numerous internal difficulties but, as the Sixth Five-Year Plan would call for increasing the number of integrated projects like NERAD, the experience gained and the lessons learned under NERAD would be especially important.

The NERAD Project has become an important catalyst of technical and institutional innovation within agriculture in the Northeast. The need for such a role will not end with the end of the project and though it is unlikely that the more ambitious aims of the project will be fully accomplished by the scheduled termination date, the need to institutionalize the successful functions of the project has been recognized. To this end, the Ministry of Agriculture is now engaged in a redefinition of the role of extension. The farmers' trainings and on-farm trials proved quite successful under NERAD but it was observed that lack of man-power limited the amount of follow-up

necessary to sustain the dialogue between the villagers and the technicians.

It has been decided that the T&V system promulgated during the National Agriculture Extension Project during the Third Plan has proven too rigid and unresponsive to the needs of the Thai farmer, and reduces the extension agent to the role of little more than a messenger. Current thinking in the Ministry calls for the Tambon extension agent to assume responsibility for coordinating extension inputs from all Ministry departments into the Tambon and advising other Ministry departments on farmer needs. Many of the details remain to be worked out, but the basic framework seems to coincide closely with the thinking regarding extension roles which has emerged out of the NERAD experience. In recognition of this, the Director General of Extension has asked NERAD to collaborate with his Department in the development and testing of a prototype for the new national extension program.

During the period of the Fifth Plan agricultural exports continued to increase, particularly those of shrimp products, maize, and cassava. It was during this time that Prime Minister Prem headed a mission to the EEC to argue Thailand's case as the EEC instituted import quotas on cassava products.

LAND CLASSIFICATION

Unrealistic land classification and the lack of secure tenure for many farmers are major constraints in increasing agricultural productivity in Thailand. Land classification often runs counter to the land's actual suitability. This is particularly a problem in lands officially classified as forest lands, which at present extend up to 155 million rai, or half the country's total area. In spite of classification, roughly 30 million rai classified as forest have been encroached by over 1 million families, some of whom live in villages established for more than 100 years. Furthermore, roughly two thirds of the forest land that has been settled appears to be suitable for agriculture, and it is estimated that over 50 percent of total maize and cassava production, which has been a major factor in Thailand's agricultural and national growth, comes from encroached lands.

Settlement of the encroached lands occurred spontaneously, from individual or group initiatives, causing the distribution of land among settlers to be

relatively unequal. While most farmers cultivate from 30 to 50 rai, a few farmers have holdings of over 1,000 rai. Some have holdings that are too small to support their families, requiring the supplementing of incomes from working as hired labor for larger farmers, renting land, or working as sharecroppers. The income of the typical farmer is about at the absolute poverty level. Furthermore, throughout the encroached areas, the levels of infrastructure and public services is substantially below that in neighboring legally settled areas. Agricultural productivity is correspondingly lower, due in part to the reluctance of government units to operate in the illegally occupied land.

A high proportion of farmers in Thailand also lack security of land tenure. Of total agricultural land of approximately 150 million rai, about 60 percent has some form of documentation, while the remaining 40 percent has none. Within the former category, only 20 percent has full title; the remaining is covered by various forms of land use certificates. The latter category includes over 100 million rai (or 17 percent of agricultural land), some of which is located in areas classified as forest. Farmers without any official claim to land face difficulties in obtaining institutional credit and often must depend on very expensive informal sources of credit. Inadequate security of tenure also gives little incentive to farmers to effect long-term improvements of their holdings such as soil conservation works. This is particularly a problem in the encroached public lands, which are usually transition areas between traditional agricultural lowlands and forested highlands and often have sloping portions which require soil conservation measures.

SIXTH FIVE-YEAR PLAN (1987 - 1991)

The Sixth Plan has identified Thailand's export potential as the principal opportunity for the Thai economy during the immediate future. Seeing this period as an opportunity to enter markets once monopolized by Japan and the Newly Industrialized Countries, the Plan calls for increasing the efficiency of production and quality of goods produced by both industry and agriculture so that Thai products can better compete in the international marketplace.

The government will place emphasis on improving farming systems so that more efficient use can be made of the Kingdom's natural resources, both physical and human. The intensification of agriculture, through agro-industrialization, is seen as a

means of making use of these resources while providing livelihood for the rapidly growing labor force. This will also enable the Thai economy to be less dependent on the more traditional commodity crops for export.

The diversification of Thai agriculture, away from the traditional commodity crops, toward high-value crops such as processed foods and fresh fruits and vegetables for export is recognized as a method of increasing employment opportunities for the rural population and increasing exports. Commercial forestry has also been targeted as a means of preserving the environment while supplying necessary raw materials for industry. The government is also encouraging the private sector to take part in this development strategy.

The work of the Joint Public-Private Sector Consultative Committee (Joint Committee), begun in 1981, has operated to facilitate contact and provide a forum for dialogue between the private investment sector and the public production support sector. The review of problems and development of mutually beneficial solutions in concert have been introduced and fostered at the national and provincial levels. Strong leadership and active follow-up by political leaders at the national level have enhanced the role of the Joint Committee, giving it credibility in the eyes of a private sector normally doubtful of the public sector's intentions. It is expected that the relationships already developed will continue through the Sixth Plan.

The Sixth Plan intends, through incentives, to disperse the development of urban and new economic zones to different parts of the nation. This will lessen the demands made on the limited services available in the Bangkok metropolitan area while raising the quality of life in the new economic zones. It is expected that the encouragement of agro-industrialization in the provinces will serve toward this end.

The current trend in Thai government policy is to give added attention to promoting alternative sources of employment in rural areas. Programs and projects carried out during the Fifth Plan brought to the government's attention issues and matters which have helped to focus the Sixth Plan. The Plan will seek to provoke actions which will lead to increasing rural income and stimulating rural employment. Similarly, the Thai government is enhancing its support for an industrial policy oriented toward rural industry. Through such a policy, the government hopes to stimulate the development of rural industries through the implementation of programs aimed at alleviating constraints to the expansion of rural private sector investment.

THE FUTURE

Where other ASEAN member nations will show average growth rates ranging between minus 0.5 and 4.2 percent in the period 1983 - 1987, Thailand will show a much more healthy rate of 5.2 percent. The bulk of this growth comes from the manufacturing sector however, with this export-led sector growing at 7 percent over the same period. Textile exports alone grew 45 percent in baht value terms in 1986, becoming the largest single export item with exports of \$1.2 billion. Manufacturing now contributes 22 percent to GDP compared to 19 percent from agriculture.

Commodity exports continued to expand during the period though prices declined. Rice exports grew from 3 million MT in 1981 to 4.5 million in 1986, despite fears of a negative impact of the rice provisions of the US Farm Act. Corn exports increased 60 percent during the same period, growing from 2.5 million MT to 4.0 million. Rubber and prawn exports also grew rapidly, at 60 and 40 percent respectively.

Agricultural and manufacturing exports increased during this period in spite of only sluggish improvement in Thailand's terms of trade which dropped precipitously beginning in 1978. The decline of the dollar-linked baht has been a major cause of this growth but the first push came in November, 1984, before the decline of the dollar, when the baht was devalued almost 15 percent. This difficult, and in many urban circles, unpopular decision slowed imports and attempted to boost hard-pressed rural incomes. It also helped hasten the rapid growth of tourism while stimulating manufactured exports. The decline of the dollar since the decision to devalue the baht has only served to prolong the expansion.

However, this dramatic growth in the manufacturing sector only serves to hide the fact that growth in the agriculture sector, as important as it is in terms of employment (66 percent of the workforce in 1984 and the largest single generator of employment in the Sixth Plan--targeted for 33 percent of all new jobs with industry taking 20 percent and various services 46 percent) has virtually ceased. As can be seen in Table 3, agricultural growth during the Fifth Plan grew at only 2 percent compared to over 3 percent during the Fourth Plan and higher during earlier Plans. In spite of the great strides made in the 1960s and 1970s with the expansion of roads and services throughout the country and expansion of agricultural land, this could not counter the combined effects of the drought of 1986, the fall in international commodity prices and the great jump in fertilizer prices beginning in the early 1980s.

TABLE 3. Gross Domestic Product Growth by Sector
(1977 - 1986)

	1977-81	1982	1983	1984	1985	1986
Agriculture	3.5	1.0	3.8	3.3	2.7	-0.2
Manufacturing	8.7	4.4	7.3	6.3	6.8	7.0
Mining	10.1	-4.2	-0.4	22.7	10.8	1.4
Utilities	11.7	6.7	8.8	10.1	10.2	6.9
Services	8.2	6.5	6.3	5.3	4.0	4.3
Overall	7.1	4.8	5.8	6.1	3.5	3.7

Nonetheless, potential remains for continuing the economic growth experienced during the 1960s and 1970s. This is due to the relatively equitable distribution of agricultural land, which is occupied mostly by smallholders who cultivate it for their own gain. The dynamism of the private sector, both in agriculture and industry, for which Thailand is well known, is also undiminished. The ready adaptability of the Thai farmer to new situations and acceptance of new techniques continue to be a plus, as is the progress in slowing population growth.

At the same time there are a number of less auspicious signs of developing problems in the economy that will have to be resolved if growth is to be maintained at a satisfactory level through the 1980s. Among the most serious is the potential effects of the increasing scarcity of good new land and the effects of erosion on encroached forest lands. This is bound to lead to subdivision and eventually the inability of reduced holdings to support farm households under existing farming techniques. It is becoming increasingly important that improved farming systems be found that will allow smallholders to intensify production while at the same time diversify into crops that show potential for agro-industrialization, thereby decreasing Thailand's dependency on traditional commodity crops for export. Also of major importance is the rapidly growing labor force generated by improved health condition since the 1950s and the high birthrates of the 1960s. In both cases an enlarged and more positive role is indicated for the government, in the first instance to expand greatly through public sector projects new intensive methods of cultivation, and in the second to accelerate private sector investment in industry, especially labor-intensive agro-industries and rural and small-scale enterprises.

V. MAJOR FACTORS AFFECTING AGRICULTURAL DEVELOPMENT IN THE NORTHEAST

NATIONAL RICE POLICY

Rice is the heart of Thailand's agricultural sector, accounting for 40 percent of agricultural GDP and 30 percent of agricultural exports. Rice makes up over one-half of the calories in the Thai diet and is therefore the wage good most affecting the cost of living for the Thai consumer. Rice-growing households constitute 98 percent of the 4 million farming families in Thailand, accounting for 55 percent of the national population and 66 percent of the labor force.

Thailand's policy for rice is particularly important when viewed in an historical context. Since World War II, rice export taxation has performed a number of critical functions: (a) it has served to transfer income from farmers to urban employers and government; (b) it has kept prices low to urban consumers; (c) it has functioned as an important source of development financing; (d) it has kept wages low; and (e) it has buffered domestic rice prices from international price shocks. However, decades of such taxation and, as a consequence, the lower price for rice received by farmers have kept the intensity of input use (and thus the paddy yield) at low levels. Such a disincentive to intensification has been an acceptable trade-off because exportable surpluses could still be generated from new lands and, coincidentally, when surpluses began to contract in the mid-1970s, irrigation development came to fruition in the Central region.

However, now that the high agricultural growth rates of the past have deteriorated, suitable new rice land is no longer available, new irrigation development has slowed, rice revenues are no longer an important source of government revenues, and with the softening of the world rice market, Thailand can no longer afford the loss of efficiency brought on by rice taxation.

In 1985, the World Bank recommended a series of measures that would emphasize intensification of rice production.¹¹ These measures included the elimination of the rice export tax and the rice premium. The Bank also recommended that the 17 percent import duty on urea fertilizer be removed and the government actively promote the use of fertilizer as an integral part of production packages including agro-pesticides and improved seeds.

¹¹Thailand, Pricing and Marketing Policy for Intensification of Rice Agriculture. The World Bank, 1985.

While these initiatives would likely have a major impact on improving incentives to and the income status of surplus-producing farmers, they would not be critical in improving productivity in those areas of more limited agricultural endowment such as the Northeast. In the Northeast, the amount of glutinous rice placed on the market by most farmers makes up only a small proportion of total production and pricing policy would have little effect on enhancing income in the region.

CASSAVA PRODUCTION

Cassava was originally cultivated by farmers in Eastern Thailand on the sandy soils of provinces with low rainfall along the Eastern Seaboard. As demand for cassava pellets in the EEC grew in the late 1960s, many traders took cassava cuttings to provinces of the Northeast having similar agro-ecological characteristics. In addition to the introduction of cassava in this way, many of the laborers on farms in Eastern Thailand were from the Northeast and took cuttings for trial planting in their

TABLE 4. Cassava - Provinces Producing Over 300,000 Tons^{1,2}
(Unit: '000 tons)

Province	1969	1974	1979	1981	1983	1985
Nakhon Ratchasima	275	975	2,868	4,115	5,035	3,837
Rayong	184	1,147	1,150	1,591	1,968	1,756
Chonburi	1,689	992	847	1,488	1,665	1,288
Kalasin	-	147	578	925	670	637
Prachinburi	-	385	560	359	774	795
Udorn Thani	-	147	530	680	498	743
Khon Kaen	-	88	521	969	1,025	867
Nong Khai	-	37	483	826	719	956
Chachoengsao	184	286	482	1,219	1,113	1,202
Chaiyaphum	-	72	449	529	602	883
Mahasarakham	-	31	442	257	553	377
Buriram	-	639	310	379	507	646
Roi Et	-	30	213	372	371	552
Whole Kingdom	3,079	6,240	11,101	17,744	18,989	19,263
Total Northeast	507 ^{1,3}	n/a	6,952	10,046	10,985	10,964
% Northeast	16.5	n/a	62.6	56.6	57.9	56.9

^{1,2}Office of Agricultural Economics

^{1,3}1971

home provinces. As can be seen in Table 4, there was a five-fold increase in Thailand's cassava production during the ten year period between 1970 and 1980.

This impressive growth allowed Thailand to take over 90 percent of the total EEC market and Thailand is now the world's largest producer of cassava products. This is in spite of the Thai government's initial policies restricting the location of pelletizing factories to only a limited number of provinces (due to fears of the effects of incorrect cultural practices on the marginal land used for cultivation of cassava). Despite these prohibitions pelletizing factories were built in several areas and dock and storage facilities were improved by private firms. It was the aggressive Thai private sector which saw the market potential of cassava and it was they who provided

TABLE 5. Thailand: Exports of Cassava Products
(1966 - 1987)¹⁴

Year	Quantity (Metric Ton)	Value (Million Baht)
1966	688,603	644
1967	781,357	726
1968	888,854	772
1969	975,091	875
1970	1,326,865	1,223
1971	1,123,084	1,240
1972	1,311,038	1,547
1973	1,836,453	2,537
1974	2,392,477	3,836
1975	2,385,445	4,596
1976	3,721,622	7,530
1977	3,954,367	7,720
1978	6,287,964	10,892
1979	3,961,216	9,891
1980	5,217,703	14,887
1981	6,265,891	16,447
1982	7,815,456	19,751
1983	5,196,751	15,386
1984	6,569,736	16,600
1985	7,100,024	15,002
1986	6,320,557	19,094
1987 ¹⁵	1,704,000	5,684

¹⁴Department of Customs

¹⁵Includes data for first quarter only.

the credit, extension services and inputs such as cuttings and fertilizers to the farmers.

Expansion of cassava production in the Northeast followed the network of paved roads. Initially production in the region was limited to those areas around Nakhon Ratchasima and thereby most convenient to port facilities in Bangkok. However, during the 1970s, as production grew in the Northeast, those provinces along the main trunk roads or having easy access to those roads also increased production. Khon Kaen province soon followed, as did Udorn Thani and Nong Khai and some provinces off the main trunk roads such as Mahasarakham. The roads opened new land for agricultural production. As the roads network expanded, the forests diminished through illegal felling of logs, giving way to the production of cassava. Production of cassava in the Northeast still centers on those areas that are accessible by the road network constructed during the 1960s and 1970s. Areas that have appropriate rainfall conditions yet do not have the transportation facilities necessary for bulk commodities have not benefited as greatly from the increase in production of cassava.

The growth of cassava production in the Northeast took advantage of the fact that cassava can be grown on sandy, marginal land which is uneconomic for other major crops and the water requirement of the crop is much less than that of rice. Drought reduces yields somewhat but not beneath the break-even point.

TABLE 6. Cassava: Area, Production, Yield, Farm Price

Year	Planted Area (1M rai)	Production (1M MT)	Yield (MT/rai)	Farm Price B/kg
1977	5,293	11,840	2.28	0.47
1978	7,282	16,358	2.48	0.37
1979	5,286	11,101	2.24	0.77
1980	7,250	16,540	2.36	0.75
1981	7,940	17,744	2.28	0.46
1982	7,726	17,788	2.62	0.51
1983	8,552	18,989	2.99	0.74
1984	8,780	19,985	2.40	0.66
1985	9,230	19,263	2.24	0.40
1986	7,748	15,255	2.03	0.78

In 1981, the EEC implemented quotas on the import of Thai cassava pellets and, after several trying years of declining prices and concern about the future, the production of cassava

seems to have stabilized in Thailand. Should the EEC lower the quota on cassava (from which Thailand benefits greatly) or the current subsidies on other grain crops, Thai farmers would be forced to become more efficient and productive as cassava is not generally competitive with other animal feeds on the world market. The nominal use of fertilizers would increase yields but if prices continue as they are now, few farmers are expected to increase their inputs.

Many of the initial fears of the government in regard to the affects of cassava production on the environment have been confirmed, for cassava, like any non-leguminous crop, takes more from the soil in terms of nutrients than it returns and this, combined with the fact that cassava requires a planting area devoid of any cover crop, has led to cultural practices that have left many areas in the Northeast where soil is totally depleted of nutrients or, in the worse case, topsoil has been stripped through erosion. Large areas of forested land first penetrated by illegal loggers were later cleared for the expansion of cassava production. The lack of ground cover and subsequent erosion have significantly added to ecological problems affecting the region. An alternative to continued emphasis on cassava is the re-introduction of kenaf cultivation as this fiber crop is gaining new interest internationally as an alternative source of paper pulp.

The EEC is providing research funds to identify alternative upland crops in order to reduce the amount of land devoted to cassava production. This is an economic-cum-political scheme as the EEC wishes to reduce cassava imports from Thailand without forcing Northeastern farmers to suffer undue hardship. As cassava is a drought tolerant crop that fits nicely within existing cropping systems it has been difficult to identify other crops that offer the same advantages and consequently this project has not been overly successful.

EXPORTATION OF LABOR TO THE MIDDLE EAST

The great rural/urban income imbalances have been partly offset by internal and external remittances (mainly from the Middle East), though the gap remains wide. The Labor Department has calculated that there were 85,600 Thais sent to the Middle East in 1986, up from 69,685 in 1985. The Department is now opening regional recruitment offices in an effort to promote the continuing exportation of skilled and semi-skilled labor abroad. A target of 120,000 workers has been set for 1987.¹⁶

¹⁶Public Relations Department, 1987.

The exportation of Thai labor to the Middle East began in the mid-1970s, about the time of the closing of the American air bases in Thailand. Many of the same international firms that had been involved in the construction and maintenance of the air bases were then increasing their presence in the Middle East and required trained and disciplined workers. Many of the first workers from Thailand to go to the Middle East were from the Northeast and were those who had gained experience on American bases located in the area. The province with the largest number of migrants to the Middle East is Udorn Thani, the former site of one of the largest bases. In 1981, over 39 percent of all Thai workers in the Middle East were from the Northeast, up from 30.0 percent in 1977.¹⁷

These first workers were paid quite well by Thai standards (averaging about \$550/month) and the commissions paid to the placement services were low. These first individuals were able to send large amounts of their salaries home to their families. A large percentage of this group and later groups have worked in the Middle East for several years and often encourage members of their families or those from the same village to make the trip. There are several villages in the Northeast where as many as 80 percent of the families have had at least one member, and often more, work in the Middle East. Many returning workers have invested their earnings in land, farm equipment, rice mills or have become small businessmen and traders. Many, upon their return from the Middle East, have gone on to assume more significant roles in their communities, using the profits of their labor to extend the influence of their families.

During the past five years the picture has changed somewhat. Due to decreasing oil profits, many Middle Eastern countries have had to reduce the scale of major construction projects. Though Thai labor is still in demand, wages have dropped and demand for un-skilled labor has slackened. At the same time, competition between the Thai labor force and those of other countries such as Malaysia and the Philippines has increased. Recruitment agencies are now charging more in commissions for their services and many firms have cheated would-be workers out of deposits and advance fees. Wages have also dropped, now averaging less than \$300/month for un-skilled workers. Due to the increase in commissions and decline in wages there are those un-skilled workers who now stand to lose money if their contract is for less than one year. At the same time, many recruiting agencies now

¹⁷Dr. Sumalee Pitayanon, Migration To The Middle East From Thailand, Paper No. 2701, Chulalongkorn University, 1984.

TABLE 7. Remittances of Thai Workers by Country, Selected Years, 1976 - 1985 (million Baht)¹⁸

Country	1976	1977	1979	1980	1982	1984	1985
Bahrain	-	-	0.4	0.1	17.5	24.9	58.7
Kuwait	-	0.2	10.8	29.6	177.2	642.8	703.8
Libya	-	-	-	21.2	286.3	253.3	259.5
Qatar	-	-	7.1	22.2	39.5	21.2	51.9
UAR	0.1	2.2	5.4	14.6	20.2	37.1	56.1
Oman	-	-	7.6	16.2	23.4	29.7	18.3
Egypt	-	-	2.3	3.8	7.8	9.1	2.8
Iran	3.0	9.3	36.6	8.8	0.3	2.3	1.5
Iraq	-	-	11.6	47.2	443.6	121.5	62.0
Israel	0.3	-	1.3	181.1	40.2	4.5	1.3
Lebanon	-	-	0.1	0.7	14.1	11.7	4.2
Saudi Arabia	11.6	76.0	1,212.2	3,784.4	9,243.5	15,311.4	11,632.2
Total (Mid East)	15.0	87.7	1,296.0	4,234.0	10,326.8	16,473.3	12,858.2
USA	367.4	591.5	1,842.4	2,164.9	2,206.7	2,444.6	7,447.8
Singapore	8.1	12.1	37.5	107.3	211.6	555.9	592.4
Other	94.6	220.3	642.4	1,196.8	1,476.6	1,645.8	2,726.1
Total	485.1	911.6	3,818.3	7,703.0	14,221.7	21,117.6	23,624.5

want to take workers for only one-year contracts as their commissions increase when turn-over is high.¹⁹

Nonetheless, the benefits gained by Thailand from the exportation of labor continue to be significant. Remittances in 1985 totalled over 5514 million and absorbed over 200,000 members of the labor force. Data is still not conclusive whether the large outflow of Thai workers to the Middle East has resulted in shortages of certain skills for domestic industries. In 1980, the NESDB conducted a survey of skilled workers in the construction industry and found that small and medium construction firms experienced some shortages of good skilled

¹⁸Bank of Thailand.

¹⁹Communication with Dr. Pithun Mekusan, Research Institute of Northeastern Art and Culture, Sri Nakharin Wirot University, Mahasarakham.

labor, thus wages were somewhat inflated. However, employers felt this phenomenon was rather temporary and replacements could always be found. Furthermore, a substantially higher number of students are now enrolled in vocational courses organized both by the government and private concerns. Thus, the present stream of skilled workers migration to the Middle East should not be cause for anxiety about skills shortages for domestic industries.

Middle East migration has had further impact on rural Thailand other than the partial offsetting of the rural/urban income imbalances. The importance of the role of women in the home and on the farm has increased as the men have departed for extended periods. For example, in a surveyed Northeastern village in Nakhon Ratchasima province, almost all attendants to the water users associations and the farm cooperatives were women. The local hiring of on-farm labor has also increased as the women left behind are unable to attend to all farm activities and the availability of new sources of off-farm income has allowed the hiring of part-time workers to help with labor intensive activities. As demand for this part-time labor increases and wages rise, some households are investing in labor-saving farm devices to solve the problem of farm labor shortages.²⁰

BANK FOR AGRICULTURE AND AGRICULTURAL COOPERATIVES (BAAC)

The Bank for Agriculture and Agricultural Cooperatives was established in 1966 as a state enterprise bank with the objective of providing credit services for the agricultural sector. Prior to 1975, the BAAC lent small amounts to farmer institutions and to individual farmers, serving mainly as an institution for financing crop production. In 1975, of the 29 commercial banks active in Thailand at the time, only 5 were involved in lending for agriculture. The Bank of Thailand estimated that the proportion of loans made for agricultural purposes in 1974 was only 1.8 percent of total commercial bank lending in that year and that only 1.5 percent of the total demand for credit in the farm sector was met by institution credit; most credit for agriculture was provided by various informal sources, usually at very high interest rates.

In 1975, the Thai government and the Bank of Thailand required all commercial banks to channel to agriculture at least 5 percent of the value of all loans outstanding at the end of 1974, either directly or by making deposits with the BAAC. This

²⁰Sumalee Pitayanon et. al. The Impact of Short-term Contract Emigration on the Economy of Rural Households and Village Communities: A Case Study of Northeastern Thai Villages. Faculty of Economics. Chulalongkorn University. 1982.

measure immediately increased the amounts available for farm credit and began a transformation of the credit system. The amounts to be lent to agriculture were in later years set as a proportion of each commercial bank's total deposits, and the proportion increased in steps from 7 percent in 1976 to 13 percent in 1979. The quota has not changed since 1979. Since 1978 the quota has been divided into two parts: 2 percent can be lent to agribusiness and the remaining 9 percent (11 percent as from 1979) must be lent to agriculture proper.

To further enhance the availability of agricultural credit, the government also relaxed restrictions on the opening of new commercial banks in rural areas. In order to insure that the new branches served their local areas, the Bank of Thailand stipulated that each new branch set up in rural areas must lend out an amount equal to at least 60 percent of its total deposits to that locality, and at least one third of that amount be lent for agriculture. These funds have been made available either directly to the farmer through the local bank or through an intermediary institution such as the BAAC.

These measures had two principal effects: the total amount of agriculture credit extended by the commercial banks and BAAC increased dramatically, from B1,305 million in 1974, the year before the new regulations were introduced, to B6,076 million in 1975 and to B42,063 million in 1983; and the importance of BAAC as a source of credit increased greatly. By 1983 more than 40 percent of all Thai farmers were registered to receive BAAC credit, either directly or through agricultural cooperatives.

Although the commercial banks' direct lending to farmers would be expected to raise the level of investment in agriculture, the actual uses of the money have not been closely monitored by the Bank of Thailand. There have been indications from both within and outside the commercial banks that many loans are used for non-farm purposes, including the costs which loan recipients incur in going to work in the Middle East--the destination for a large-scale movement of Thai skilled and unskilled labor recently. From the limited data available it appears that the mean size of commercial bank loans to farmers is more than B140,000, which suggests that on the whole the borrowers are large- rather than medium- or small-holders.²¹

Those farmers still outside the formal institutional credit system must yet depend on informal lenders. These include traders, store-keepers, local officials, professional money-lenders and other relatively wealthy people who lend varying

²¹BAAC and Agricultural Development in Thailand, Bank for Agriculture and Agricultural Cooperatives, Planning Department, 1985.

amounts of cash to different types of borrowers. There is little systematic information about the extent or nature of the informal credit system, or about its links with the formal banking system. Interest rates are usually high, near 5 to 10 percent per month, though these rates vary widely depending on the local area and the relationship between the lender and the borrower.

In some areas, particularly the more remote rural areas, the informal credit system is considerably more important than the formal system. This is especially true for small farmers who have little or nothing to offer as collateral or those who are already so far in debt that no formal lender will allow them more credit. Many of these small-holders are forced to borrow the necessary production inputs such as seed, fertilizer, and pesticides from traders or store-keepers at the higher rate of interest.

Although 40 percent of all Thai farmers are registered to receive BAAC credit, there is a clear bias towards middle- and large-scale farmers among existing clients. In the Northeast, for example, about 20 percent of all farmers have fewer than 10 rai of land, while only 5 percent of BAAC's clients in the region fall in this category. In response to outside pressures and in an attempt to fulfill its stated commitment to provide credit to as many credit-worthy farmers as possible, the BAAC is currently investigating and experimenting with lending strategies aimed specifically at small-scale farmers. BAAC studies have shown that although the transaction costs of lending to small-holders are high, the risks of non-repayment are not as great as had been supposed. Among existing clients of the bank there has been no statistical relationship between repayment performance and the scale of the farming operation. At the regional level, the Northeast, the poorest region in Thailand, has the best repayment record, while in the Central region repayment rates are the lowest of any other region.

In 1980, the BAAC began giving credit-in-kind instead of in cash for selected purposes. This enabled the bank to control the quality and the price of inputs, while also encouraging client farmers to adopt improved farming methods and reducing the possibility of diversion of loans to non-farm uses. This credit has been given primarily in the form of fertilizer and machinery and now makes up over 15 percent of all BAAC loans.

In 1985, the bank reviewed its role stating that the formal agricultural credit system had a central role to play in helping resolve or alleviate three major problems faced by the agricultural sector as identified by the bank. These three problems areas were: future growth depended on significant improvements with respect to farming methods; markets for most of Thailand's principal farm exports were becoming more difficult; and, past growth had been concentrated both

geographically and by the types of farmers who had benefited, resulting in an uneven distribution of income. Since then, the bank has included providing technical advice as one of its services and has also become involved in crop marketing on a pilot basis, in an attempt to help client farmers with the perennial problem of unfair practices on the part of some local private traders. Recently the BAAC entered into an agreement with Kamnan Song, the organizer of a very successful cooperative central rice market in Nakhon Sawan province, where Song will provide consulting services to the bank.

NORTHEAST GREEN BELT MASTER PLAN

A \$544 million master plan has recently been developed by the Prem government to turn the Northeast region into a "Green Belt." The 5-year project, which is to go into effect immediately, intends to end the shortage of drinking water in the region and increase the forested area of the Northeast from 14 percent to 25 percent of total land area. The plan has been heavily promoted by Army Commander-in-Chief, General Chavalit Yongchaiyudh, and will be coordinated by the Army.

As with past development projects carried out in the Northeast, politics and security considerations are playing an important role in this development plan for the region. The army-dominated Internal Security Operation Command (ISOC) has maintained a high profile in the promulgation of this plan. The ISOC's stated aim is to become an agency to initiate political and economic projects, as part of a new approach to combat communism, and critics point out that there is more than one way to "green" the Northeast. Success of the program would gain credit for both the ISOC and Chavalit, deputy director of the command.

The NESDB has not yet become involved in this extensive endeavor. Prodded by specific instructions from King Bhumibol Adulyadej to improve the region's well being, Chavalit has instructed senior army officers to ensure the success of this latest attempt. To fend off criticism that the army is stealing the show from the government, Chavalit has stated that military assistance of this nature is temporary and selective. It is meant only to coordinate civilian agencies,, though civic works is one of the armed forces' rightful duties under the constitution.

The project calls for the construction of reservoirs and irrigation canals and the digging of artesian wells in addition to the improvement of existing wells in the 17 affected provinces. The government plans to carry out irrigation projects using water from the Mun, Lam Chee and Mekong rivers.

Illegal logging has cut forest reserves in the Northeast from 25.6 million rai in 1976 to 15 million rai in 1985. This destruction has irritated already arid conditions and the government now acknowledges that the trend must be reversed. Conservation of remaining forest reserves is an important component of the plan and reforestation of over 10 million rai is envisioned.

The Lower Northeast is the high priority area of the project as this area has suffered from major drought the past few years. The past two years have inordinately severe and vast tracts of rice paddy have either not been planted or seedlings have died prior to transplanting. Rains are so late this year that many farmers say that production will be minimal at best. Scientists point out that the lack of rain in the region is due in part to indiscriminate clearing of forest areas.

The plan includes the province of Roi Et in the high priority area and the military is already moving equipment to the province to begin construction of fishponds, reservoirs, and spillways.

VI. OVERVIEW OF ROI ET PROVINCE

Roi Et province is located in the south central portion of the Northeast. Tributaries of both the Mun and Chee Rivers flow through the province. The southern portion of the province makes up part of the Weeping Plains Prairie (*Tung Kula Rong Hai*), and includes districts Suwannaphum, Phanom Phrai and Kasetwisai.

The province of Roi Et is made up of 13 districts and encompasses a land area of 8,299 square kilometers. The population of the province in 1986 was 1.17 million, up from 785,329 in 1970.²² Though a rural agricultural province, Roi Et is the most densely populated province in the Northeast with a population density of over 140 persons per square kilometer. As can be seen in Table 8, this is greater than the average for both the Northeast and the Kingdom as a whole. This high density also holds true for nearby provinces, including Mahasarakham and Kalasin, for roughly 66 percent of the population of the Northeast, or over 11 million people, live in the lowlands formed by the basins of the Mun and Chee Rivers.

TABLE 8. Demographic Comparison of Roi Et, the Northeast and Thailand (1985)²³

	Urban (%)	Growth Rate 1984-85 (%)	Population Density (/sq km)
Kingdom	17.8	2.4	101
Northeast	5.9	2.4	107
Roi Et	2.9	1.3	138

The high population density in Roi Et has led to a history of migration of population out of the province and is cause for a growth rate lower than the national average. During the 1950s and 1960s much of the outward migration was to Thailand's eastern seaboard where the expansion of farm land and the increase in agro-industrialization created many job opportunities. It was also during this period that the United States constructed large Air Force and Navy bases in Chonburi and the sapphire rush began in Chantaburi and Trat. As the job market along the eastern seaboard became saturated in the mid-1960s, many migrants from Roi Et began moving to the more sparsely populated areas farther north within the Northeast in

²²Ministry of Interior, 1987

²³National Statistics Office

Nong Khai and Udorn. Many of these migrants ultimately encroached on land classified as forest reserve by the Land Department.²⁴

The economy of the province, like the Northeast in general, is based predominately on rainfed agricultural with 133 thousand land holders farming 2.9 million rai. Average size of agricultural holdings in 1983 was 22.0 rai, a decrease of 7.6 percent over the average of 23.8 rai in 1976. As can be seen in Table 9, over 86 percent of agricultural holdings in Roi Et are fewer than 40 rai, only slightly higher than that for the Kingdom as a whole.

TABLE 9. Breakdown of Agricultural Holdings in Roi Et Province, 1978 and 1983 (percent)²⁵

Size of Holdings (rai)	Year			
	1978		1983	
	Kingdom	Roi Et	Kingdom	Roi Et
less than 6	14.9	8.4	14.7	7.5
6 - 9.9	12.2	11.9	12.4	12.0
10 - 39.9	56.5	64.6	57.8	67.1
40 +	16.4	15.1	15.1	13.4

Rice is the principal crop with 1,238 million rai planted with glutinous rice and 550 thousand rai planted with the non-glutinous variety. The area under rice production has decreased almost 30 percent since 1978. Cassava is the second major crop with 151 thousand rai planted. The area devoted to cassava production has increased over 60 percent since 1978. Cassava is better able to withstand the drought conditions common to the province.

Rainfall in Roi Et averages less than 1,300 mm each year with the bulk of this falling between the months of May and September. Total rainfall between November and March is normally below 100 mm. During the months of peak rainfall, the tributaries of the Mun and Chee Rivers often overflow their banks, causing extensive short-term flooding throughout the

²⁴Migration, Urbanization and Development in Thailand. Comparative Study on Migration, Urbanization and Development in the ESCAP Region, Country Reports. United Nations. 1976.

²⁵1983 Intercensal Survey of Agriculture, Roi Et Province. National Statistics Office; Office of the Prime Minister. 1984.

province. The Lam Takong and Lam Phra Pleung dams were constructed during the Third Year Plan with the aim of reducing flooding and providing a source of irrigation water. However, annual flooding in most areas has remained the same and many areas have not benefited from irrigation due to the lack of adequate delivery systems.

THE WEEPING PLAINS PRAIRIE

The Weeping Plains Prairie is a vast plain encompassing ten districts in Roi Et, Sisaket, Mahasarakham, Surin, and Yasothon provinces. The Plain is located on the left bank of the Mun River in the Lower Northeast Region, covering 2.1 million rai with a population of 350,000. The soil has a high sand content with little organic matter. The soil is also highly saline with low potential for holding moisture. Yearly rainfall averages for the Weeping Plains are among the lowest for all the Northeast, seldom reaching 1,300 mm. Typical of the Lower Northeast, there is often both extensive flooding and drought in a single year.

The Fifth Plan put special emphasis on the development of the Lower Northeast region. The depletion of forested land used for agricultural expansion and decreasing yields due to improper soil management had caused agricultural output to fall and the share of gross regional income to decrease from 17.0 percent of the national income in 1960 to 14.7 percent in 1981. The Plan targeted the Weeping Plain especially for development of more efficient land use strategies and the protection of deteriorating natural resources.

AGRICULTURAL DEVELOPMENT PROJECTS IN ROI ET

Many different agencies have been active in agricultural development projects in Roi Et, including all projects summarized in this report. The Office of Accelerated Rural Development began operating in the province in the mid-1960s and has built roads, bridges, spillways and reservoirs. Over the years the emphasis of ARD has shifted towards agriculture extension and the development of local skills that will provide employment and income for farmers in their local area. These projects include the raising of silk worms and the weaving of cloth, the construction of water storage jars, fisheries and Tambon-level fish spawning stations

and the promotion of compost making to improve the quality of soils at low cost.

The NERAD Project has had two pilot villages (Tambon Taket and Tambon Tae) in Roi Et taking part in on-farm testing of farming systems and rainfed agriculture techniques under study by the project. Of particular interest to farmers in the area are the improved tube wells designed by the project and the culture of fish in rice paddies--a traditional practice now being re-introduced by several agencies, including ARD, the Fisheries Department, and several NGOs.

In addition, the USAID-sponsored Northeast Small Scale Irrigation (NESSI) Project was involved in the rehabilitation and upgrading of small-scale irrigation facilities in Roi Et. These facilities had been consistently under-utilized since they were built. Beyond the physical rehabilitation of the facilities, the project also addressed other causes of under-utilization such as inefficient delivery of services, ignorance of knowledge of proper methods of water management, and the general lack of on-farm agricultural services. USAID involvement focused on training farmers and irrigation system personnel and on providing technical assistance in developing the design and effective utilization of the system.

The Australian government has funded soil field studies, including soil salinity surveys in the Northeast, in particular in the Tung Kula Long Hai area where soil salinity is a major problem. They have also supported flood irrigation projects in areas of the province. Along with the New Zealand government, the Australians have been major contributors to the development of the University of Khon Kaen.

SOCIO-ECONOMIC SETTING

As is shown in Tables 10 and 11 and graphically displayed in Figures 3 and 4, per capita income in the province has increased only marginally over the past ten years in spite of the many development projects carried out. The decrease in per capita income in 1977 is attributable to the pull-out of American military forces in the preceding year. The increase in the world market price of oil and the corresponding rise in fertilizer prices in the early 1980s also caused incomes to stagnate in Thailand during that period. The reduction in imports and the implementation of quotas on cassava products from Thailand by the EEC during this same period also had a negative impact on per capita incomes, especially in Roi Et and the Northeast.

Per Capita Income

(Current Market Prices)

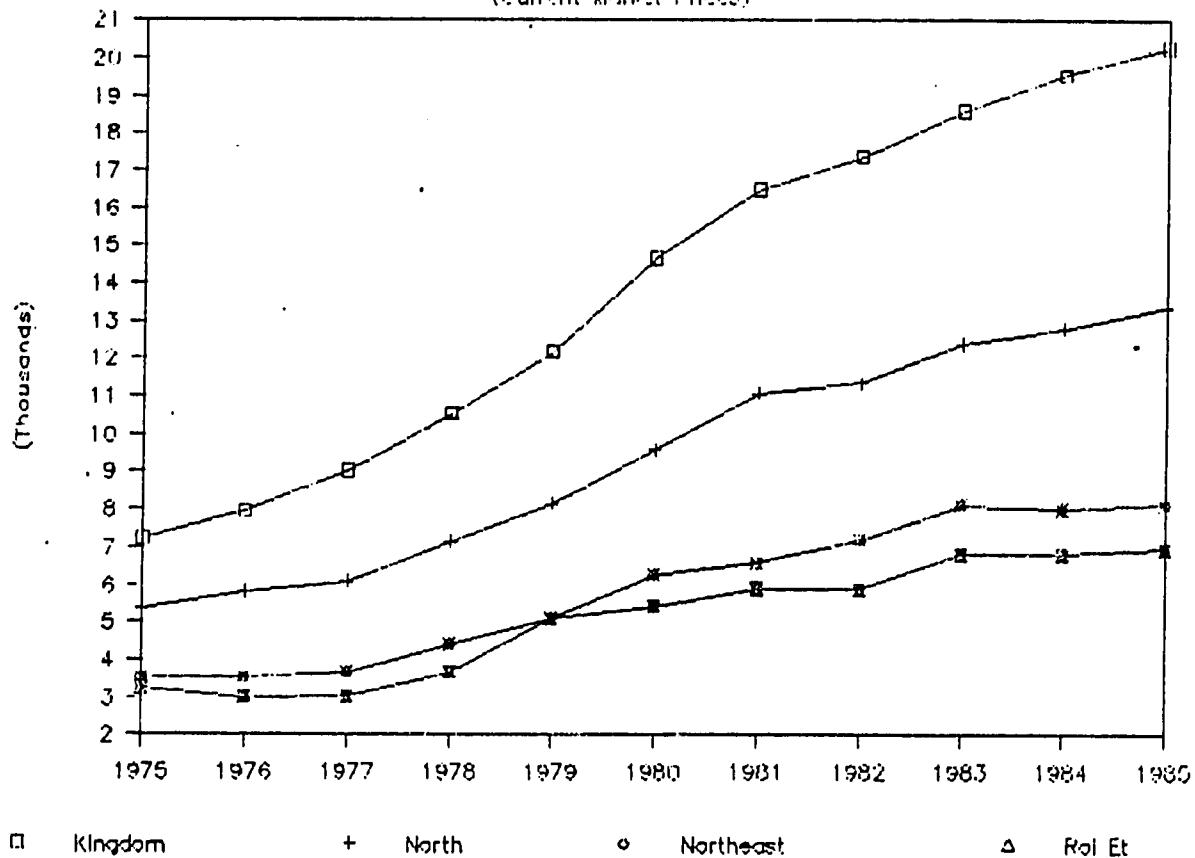


FIGURE 3. Per Capita Income by Region at Current Market Prices (Baht)

TABLE 10. Per Capita Income by Region at Current Market Prices (Baht)²⁶

	Kingdom	Bangkok	North	South	Northeast	Roi Et
1975	7,221	18,827	5,388	5,899	3,527	3,246
1976	7,949	21,206	5,802	5,928	3,531	3,005
1977	9,024	25,105	6,091	8,417	3,665	3,010
1978	10,530	29,309	7,144	9,758	4,396	3,666
1979	12,176	34,693	8,143	11,157	5,110	5,082
1980	14,660	42,155	9,585	12,710	6,257	5,424
1981	16,469	46,891	11,064	13,496	6,581	5,897
1982	17,359	49,539	11,355	13,419	7,185	5,888
1983	18,584	52,150	12,375	15,058	8,107	6,805
1984	19,551	56,092	12,781	15,200	8,009	6,803
1985	20,263	59,003	13,353	15,358	8,124	6,947

²⁶Office of the National Economic and Social Development Board, 1987.

Per Capita Income

(Constant 1972 Prices)

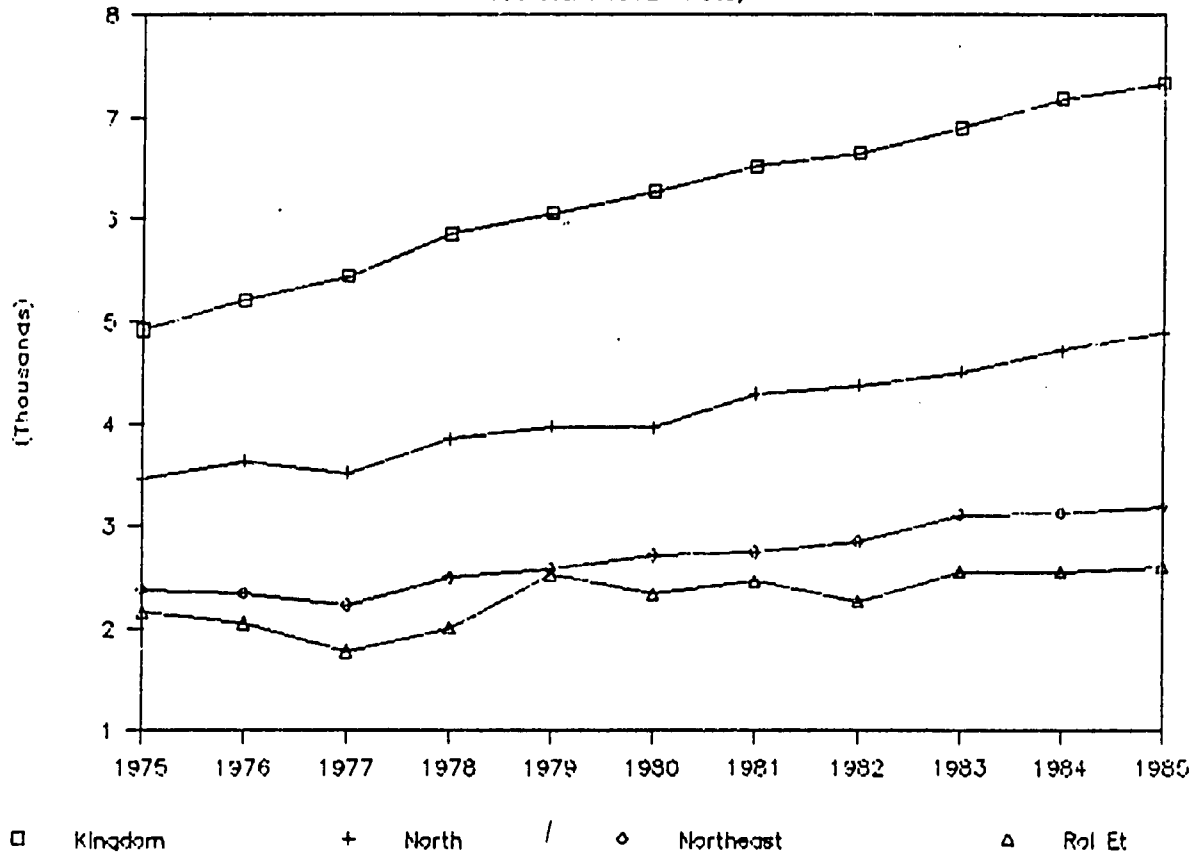


FIGURE 4. Per Capita Income by Region at Constant 1972 Prices

TABLE 11. Per Capita Income by Region at Constant 1972 Prices

	Kingdom	Bangkok	North	South	Northeast	Roi Et
1975	4,916	13,400	3,459	4,702	2,372	2,155
1976	5,208	14,477	3,624	4,324	2,346	2,046
1977	5,444	15,692	3,514	4,738	2,225	1,767
1978	5,851	16,796	3,843	4,943	2,493	2,002
1979	6,062	18,052	3,965	5,056	2,583	2,533
1980	6,269	18,908	3,953	5,015	2,712	2,332
1981	6,520	19,040	4,289	5,144	2,741	2,462
1982	6,648	19,220	4,369	4,971	2,840	2,261
1983	6,895	19,799	4,502	5,290	3,106	2,554
1984	7,181	20,497	4,716	5,324	3,119	2,555
1985	7,328	20,812	4,883	5,400	3,175	2,599

The rate of inflation increased during the early 1980s as the price of fuel and fertilizers increased. However, as can be seen in Table 12, inflation has slowed since 1982, increasing 6.5 percent in the Northeast between 1982 and 1985 compared to 7.2 percent for the Kingdom.

TABLE 12. Consumer Price Index by Region, 1982 - 1985²⁷

(1976 = 100)

	1982	1983	1984	1985
Whole Kingdom	181.1	187.9	189.5	194.1
Bangkok	186.3	192.6	194.0	200.2
Central	175.2	181.6	183.0	186.2
Northeast	178.2	188.2	188.4	189.9
North	171.5	180.0	181.8	184.1
South	173.0	178.4	182.9	185.3

Agricultural credit continues to expand in Roi Et as shown in Table 13. The Bank for Agriculture and Agricultural Cooperatives began offering credit-in-kind in 1980 and this policy greatly expanded the credit available to small holders. The significant increase in short-term loans made in Roi Et after 1980 is attributable to the new policy. This policy also enabled

TABLE 13. Loans Made to Farmers in Roi Et by Bank for Agriculture and Agricultural Cooperatives, (1977 - 1982)²⁸

Loans Disbursed
(',000 Baht)

	Short-term	Median-term	Long-term
1977	25,413.6	8,998.5	1,028.5
1978	42,642.0	13,168.2	6,916.7
1979	48,919.2	19,683.0	13,069.8
1980	40,476.3	18,063.0	10,203.5
1981	70,500.9	28,071.7	16,399.2
1982	74,203.4	28,163.6	11,223.9

²⁷Department of Business Economics, Ministry of Commerce

²⁸Bank for Agriculture and Agricultural Cooperatives.

the bank to better control the quality and the price of inputs, while also encouraging client farmers to adopt improved farming methods and reducing the possibility of diversion of loans to non-farm uses. This credit has been given primarily in the form of fertilizer and machinery and now makes up over 15 percent of all BAAC loans.

Forms of land tenure are changing in Roi Et as in the Kingdom as a whole. An increasing number of land holders now operate under more than one form of land tenure, be it partially-owned holdings, rented or sharecropped. As can be seen in Table 14, while a larger percentage of land holders in Roi Et still own their own their holdings, the trend is going toward a mixture of tenure systems.

TABLE 14. Land Tenure by Kingdom and Roi Et Province, 1982²⁹ and 1983²⁹

	1978				1983			
	Kingdom		Roi Et		Kingdom		Roi Et	
		%		%		%		%
TOTAL	3,970.5	100.0	123.2	100.0	4,463.9	100.0	133.6	100.0
Under single form of tenure	3,688.3	92.9	119.9	97.3	3,620.4	81.1	120.1	89.9
Owned	3,419.5	86.1	119.1	96.6	3,230.9	72.4	117.3	87.8
Rented	234.0	5.9	0.6	0.5	246.6	5.5	0.8	0.5
Others	34.7	0.9	0.3	0.2	142.9	3.2	2.1	1.6
Under more than 1 form of tenure	282.2	7.1	3.3	2.7	843.5	18.9	13.5	10.1

HEALTH SERVICES

There is only one hospital in the province, located in the provincial capital. Government health centers, staffed by medics and nurses, are found in each district and are most often used by villagers. The facilities available and services provided at these centers are limited but are much more accessible to rural villagers than the provincial hospital. The number of these health centers is increasing and are now located in many Tambons. The Thai government currently has a program underway where hospitals will be built in all districts of the Kingdom.

²⁹1983 Intercensal Survey of Agriculture, Roi Et Province. National Statistics Office, Office of the Prime Minister. 1984.

As can be seen in Table 15, the number of hospital beds is growing though there is a continuing shortage of trained medical personnel.³⁰ As a comparison to these figures for Roi Et, in 1984, the Kingdom of Thailand had 1.27 hospital beds and 0.159 doctors per 1,000 people. There is still much to be done before Roi Et has medical services comparable to that generally available in the Kingdom.

TABLE 15. Number of Hospital Beds, Hospital Beds per 1,000 and Doctors per 1,000, 1973-1984 for Roi Et Province

	Number of beds	Hospital beds per 1,000	Doctors per 1,000
1973	232	0.24	0.01
1974	255	0.37	0.01
1975	210	0.21	0.01
1976	235	0.23	0.01
1977	303	0.3	0.01
1978	350	0.34	0.009
1979	400	0.38	0.01
1980	400	0.38	0.01
1981	400	0.37	0.01
1982	400	0.37	0.01
1983	432	0.39	0.01
1984	432	0.38	0.01

TABLE 16. Number of Public Health Stations in Thailand and Roi Et Province (1979 -1986)³¹

	Thailand	Roi Et
1979	3,789	90
1980	4,212	94
1981	4,746	101
1982	5,891	131
1983	6,761	157
1984	6,887	161
1985	7,043	157
1986	7,368	164

³⁰Provincial Hospital Division, Office of the Permanent Secretary, Ministry of Public Health.

³¹Ministry of Public Health

The family planning programs carried out in the Kingdom have proven quite effective over the past decade and Thailand has been recognized internationally for its success in the promotion of family planning. There has been a substantial increase in users of family planning measures in Roi Et province, as can be seen in Table 17. The number of women using injections has increased most significantly as this method has proven most reliable for older women, in spite of many users complaining of a rapid gain in weight soon after beginning use.

TABLE 17. Number of Family Planning Active Users by Method for Roi Et (1978 - 1982)¹²

	1978	1979	1980	1981	1982
Oral Pills	19,287 /	19,688	20,872	22,505	23,651
DMPA	580	1,566	3,117	4,504	5,473
IUD	18,742	18,217	18,439	18,475	19,111
Sterilization	11,243	13,922	17,872	21,626	25,153
Total	49,852	53,393	60,300	67,110	73,388
% of MWRA ¹³	35.1	36.4	39.8	42.9	46.9

EDUCATION

Education is compulsory through 12 years of age in Thailand and the literacy rate for the Kingdom is high though rural education standards are still much lower than those found in the cities. The number of students completing the 6th grade continued to increase through the 1980s until 1985 when the positive effects of family planning became apparent and the number of school age youngsters decreased, causing the closure of grade schools in some areas. Many provinces still have only one high school, located in the provincial capital, thus limiting the number of rural youth able to further their education. There is now a program being implemented that will increase the number of high schools in the Kingdom so there will be a school for each district. The Thai government dedicates more of its annual budget (26.6 percent in 1985) to education than any other Asian nation.

¹²Family Health Division, Department of Health, Ministry of Public Health.

¹³Mature Women of Reproductive Age (15-44 years)

TABLE 18. Number of Graduate Population (6th Grade) in Thailand by Educational District for Selected Years³⁴

District ³⁵	1976 ³⁶	1979	1981	1982	1984	1985
1	N/A	36,316	39,980	45,055	44,336	37,217
2	N/A	16,255	18,749	20,209	23,687	23,121
3	N/A	60,503	68,332	69,072	74,112	80,689
4	24,323	17,271	19,793	24,252	25,070	24,471
5	61,112	41,236	N/A	57,085	57,187	56,333
6	53,251	45,646	48,927	52,541	53,747	N/A
7	103,462	66,418	81,723	82,316	97,720	97,805
8	96,533	N/A	N/A	N/A	N/A	N/A
9	117,644	84,148	87,534	121,234	134,885	116,851
10	2,190	94,908	137,974	149,640	151,223	147,722
11	125,547	94,419	126,243	144,199	155,663	154,555
12	64,891	43,963	53,048	58,209	60,898	61,466
Total	648,953	601,083	682,303	823,812	878,528	800,230

TABLE 19. Number of Government Schools in Thailand by Educational District for Selected Years

District	1976	1979	1981	1982	1984	1985
1	N/A	1,107	1,125	1,032	1,060	1,152
2	N/A	1,222	1,234	1,159	1,201	1,189
3	N/A	2,767	2,496	2,743	2,850	2,843
4	1,048	1,009	1,017	1,018	976	1,034
5	2,010	2,179	N/A	2,128	2,177	1,741
6	2,417	2,232	2,332	2,313	2,319	N/A
7	N/A	3,233	3,784	2,792	3,864	3,879
8	3,745	N/A	N/A	N/A	N/A	N/A
9	4,153	3,981	4,153	4,098	4,093	4,115
10	N/A	4,611	4,645	4,743	4,719	4,703
11	4,469	4,578	4,646	4,915	4,849	4,816
12	2,185	2,283	2,342	2,332	2,381	2,364
Total	20,027	29,202	27,774	29,273	30,489	27,836

³⁴Ministry of Education, 1987

³⁵Northeast includes districts 9, 10, 11; North includes districts 7, 8; Central (not including Bangkok) includes districts 1, 5, 6, 12; South includes 2, 3, 4

³⁶Includes all persons completing 4th grade.

. INVESTMENT

Public Investment

Throughout the 1970s and 1980s, the Northeast received over 30 percent of total government expenditures. Even when increases in total government expenditures have slowed, the Northeast has still received about 30 percent of the annual total. As seen in Table 20, government expenditures have increased regularly since 1973 except for the 2 year period 1976 and 1977, immediately following the pull-out of American forces from the Kingdom and the flow of Western aid slowed significantly.

TABLE 20. Royal Thai Government Expenditures by Region, 1973 - 1985³⁷ (Million Baht)

Year	Central	Northeast	North	West	South	Total
1973	2,068	2,878	2,181	1,121	1,473	9,721
1974	2,636	3,720	2,827	1,450	1,895	12,528
1975	3,202	4,502	3,429	1,764	2,399	15,296
1976	699	1,040	728	329	621	3,417
1977	685	1,353	929	342	788	4,097
1978	4,860	7,359	5,533	2,752	3,995	24,499
1979	5,928	9,259	6,893	3,348	4,819	30,247
1980	7,506	11,741	8,902	4,123	6,219	38,491
1981	8,532	13,263	9,938	4,594	6,901	43,228
1982	10,473	15,948	12,056	5,657	8,711	52,845
1983	11,551	21,696	13,404	6,222	9,822	62,695
1984	12,873	24,320	15,181	6,816	10,867	70,057
1985	13,687	25,836	16,331	7,094	11,647	74,595

Roi Et province has normally received roughly 4 percent of the government expenditures in the Northeast. This dropped to less than 3 percent during the 1976 -1977 period but has increased to sometimes over 5 percent during the 1980s. Larger provinces such as Nakhon Ratchasima and Ubon consistently receive greater amounts but other large provinces like Nakhon Phanom and Nong Khai receive less due to their lower populations and relatively more abundant natural resources, especially water.

Area	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Nakhon Ratchasima	472	633	736	145	197	1,304	1,465	1,915	2,439	2,663	3,582	4,074	4,253
Buri Ram	127	163	217	75	49	292	378	507	569	766	1,021	1,156	1,236
Surin	141	186	225	32	59	315	397	525	601	791	1,094	1,289	1,440
Si Sa Ket	135	160	194	33	33	288	480	537	585	748	985	1,108	1,201
Ubon Ratchathani	311	411	513	77	151	674	1,018	1,366	1,531	1,812	2,458	2,790	3,012
Chaiyaphum	76	103	145	75	78	240	317	367	352	446	625	706	818
Fukoe(Chaiyaphum)	26	36	44	2	4	69	88	111	126	160	210	233	212
Yasothon	61	83	97	45	49	198	209	275	320	405	549	598	633
Udon Thani	294	401	475	53	83	745	920	1,073	1,290	1,582	2,059	2,273	2,345
Khon Kaen	313	389	473	202	213	945	1,255	1,579	1,700	1,918	2,513	2,779	2,952
Maha Sarakham	148	177	206	19	50	319	392	524	574	646	922	1,043	1,105
Roi Et	124	158	207	28	47	299	406	595	585	798	1,055	1,149	1,222
Kalasin	126	175	204	80	87	273	339	440	493	626	896	1,034	1,067
Nakhon Phanom	148	180	207	39	35	337	429	575	544	712	787	838	878
Sakhon Nakhon	197	238	271	51	71	404	507	642	725	838	1,151	1,207	1,281
Nongkhai	98	128	158	65	78	258	356	379	447	548	759	842	906
Loei	82	99	131	20	67	200	303	331	382	489	720	819	866
Mukdahan											312	393	411
Total	2,878	3,720	4,502	1,040	1,353	7,359	9,259	11,741	13,263	15,948	21,696	24,320	25,836

TABLE 21. Royal Thai Government Expenditure by Province in the Northeast, 1973 - 1985^a (Million Baht)

NESDB

Private Investment

Private Investment in the Northeast has increased significantly during the 1980s. Agro-industrialization is growing in the region, though still centered on major urban areas such as Korat, Khon Kaen, Ubon and Udorn. Canneries, feed mills and processing plants are among the industries expanding at the fastest rate.

TABLE 22. Private Investment in Northeast Thailand, 1978 - 1985 (Million Baht)

DESCRIPTION	1978	1979	1980	1981	1982	1983	1984	1985
Factories (Construction and expansion)	170.6	345.4	26.0	1,500.6	762.5	750.7	1,609.9	439.1
Received FOI privileges	10.5	51.0	-	101.5	2,131.9	3.4	87.8	10.8
Loans from commercial banks								
- Manufacturing	-	-	1,382.4	2,411.4	3,009.9	4,521.3	4,982.9	-
- Construction	-	-	644.4	837.9	1,240.4	1,832.8	1,922.7	-
- Agriculture	583.0	758.0	864.0	1,336.0	2,144.0	3,273.0	4,522.0	4,796.0
Loans from BAAC	2,471.0	2,725.0	3,090.0	3,509.0	4,059.0	4,615.0	4,328.0	4,607.0
TOTAL	3,235.1	3,879.4	6,006.8	9,696.4	13,347.7	14,996.2	17,453.3	9,852.9

INTERNATIONAL ASSISTANCE

International aid, both grant and loan funds, has played a important role in development of the Northeast. While this assistance slowed during the mid-1970s following the left-ward swing of the Bangkok government and the pull-out of American troops from Thailand, assistance has increased consistently since that 2 - 3 year period. As the Thai economy has strengthened over the years the amount of funds made available to the Kingdom in the form of grants has decreased but Thailand still receives favored status from the international lending institutions.

TABLE 23. Major Grant Assistance to Royal Thai Government for Agricultural Development Projects in Northeast 1971 - 1985³⁹ (\$US '000)

Year	ABD	Australia	CIDA	EEC	FAO/ UNDP	Ford	Germany	IBRD	ILO	Israel
1971		2,272.5			41.5		1,684.8		12.0	25.0
1972		2,537.3			63.8		2,084.8		30.0	4.0
1973		2,485.3			140.0		2,084.8		30.0	
1974		1,795.1			207.3		3,698.6	3,960.0	20.0	36.0
1975		953.3			203.9	54.3	3,708.6	1,460.0	14.4	93.9
1976		83.2				84.3	3,733.9	1,460.0		128.0
1977		40.4				84.3	3,815.4	6,126.7		7.5
1978		26.2					2,675.8	86,126.7		13.4
1979		299.9					3,675.8	4,666.7		15.6
1980	4.5	411.3	10.6				4,371.8	12,666.7		
1981	4.5	775.1	241.6				4,774.1	12,666.7		
1982	4.5	1,076.8	162.6	24,306.0			7,468.3	12,666.7		
1983	4.5	961.8	450.0				1,248.3	8,000.0	6.5	
1984	4.5	1,066.2	655.0				4,578.3	8,000.0		
1985	4.5	1,585.8	2,508.3			249.0	1,172.0	5,600.0		
Total	27.0	16,190.3	4,028.2	24,306.0	656.6	472.0	49,775.0	163,400.0	112.9	323.4

Year	JICA	USOM	Netherlands	New Zealand	Switzerland	UNIDO	USAID	TOTAL
1971	185.0	1,368.5		259.1				5,848.4
1972	181.7	501.0		115.9				5,338.4
1973	145.5	767.0		10.0				5,664.6
1974	158.5	668.3		3.8				10,549.6
1975	195.5	404.0		22.7				7,112.8
1976	138.7						65.0	5,695.2
1977	1,349.8			180.0			1,025.0	12,631.1
1978	1,560.8		17.0	150.0			1,025.0	91,596.8
1979	1,160.9		3,005.0	178.0			1,272.0	13,273.0
1980	1,279.7		2,541.9	200.0	3,283.3		3,972.0	23,741.9
1981	1,031.9		1,173.9	178.0	3,283.3		14,697.0	38,826.2
1982	114.1		2,150.2	111.0	3,283.3		9,340.6	60,684.1
1983	647.4		447.9	430.3	3,283.3	155.0	7,101.7	22,736.8
1984	879.5		334.3	197.8	3,283.3	197.3	6,223.9	25,420.1
1985	2,233.1		334.3	359.0	3,283.3	101.3	5,898.9	23,329.6
Total	11,262.1	3,708.8	10,004.7	2,395.7	19,700.0	453.6	50,620.9	357,446.3

³⁹Twenty-first Compendium of Development Assistance to Thailand

TABLE 24. Major Loans to Thai Government for Agricultural Development Projects in the Northeast
1970 - April, 1979 (\$US '000,000)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	Total
IBRD				4.9	7.8		36.5	4.6	43.3		97.1
OECF	11.2	0.9						5.3	16.2	11.7	45.3
Germany					1.9			5.9	22.0		22.8
USAID						2.4	2.6	0.5	1.4		6.9
CIDA									1.8		1.8
ADB						5.0			13.3		18.3
Other	0.3								33.7		34.0
Total	11.5	0.9	0.0	4.9	9.7	7.4	39.1	16.3	131.6	11.7	233.1

VII. CONCLUSION

After having been neglected for many years, Northeastern Thailand began receiving development assistance from the central government and foreign donor agencies during the 1960s in an effort to counter communist activities in the region. At the time, much of the Northeast was inaccessible to most government services as there were few all-weather roads. Therefore, those first development efforts went toward the construction of infrastructural necessities such as roads, dams, and the electrification of the larger towns. As the Northeast had long been isolated from international commodity markets and most farmers were traditional producers of rain-fed glutinous rice with few commodities to market, these roads initially allowed more to flow into the Northeast than flow out. The main export from and within the region was labor, migrating to other areas in search of employment. There was also an increase in immigration to the region as those from other regions moved into forest reserve areas made accessible by the roads.

The early development efforts of the First and Second Plans were aimed at expanding the central governments control over the area, seen as easily exploitable by internal communist influences receiving support from across the Mekong River. Development strategies during this period were totally top-down with little input from the local population in planning and only limited efforts at social development. Villagers accepted the roads and increased services but probably also realized the motivation behind the increase in interest shown by Bangkok.

Among the important elements flowing into the Northeast at this time were additional government services in the form of schools, hospitals and agricultural extension. While the former, particularly the rural health services provided by bare-foot doctors, improved the quality of life of the Northeastern farmer, the efforts of agricultural extension did not prove so beneficial. Chronic drought and the absence of irrigation facilities hampered most agricultural development projects. While the 1960s and 1970s witnessed the construction of many large irrigation projects in the area, most farmers received no benefit from the new reservoirs due to distance from the reservoir sites, inadequate water delivery systems, or lack of proper in-field extension techniques.

Merchants and the larger land owners benefited more from these initial projects more than their more rural neighbors. The rapid growth of cassava and maize production during the 1970s was augmented by the expansion of roads but those with ready capital were better able to make use of the new infrastructure than most small farmers. This contributed more to increases in inner-regional income disparities than decreasing existing regional differences.

Agricultural development projects in the 1970s shifted emphasis from the large scale irrigation projects of the First and Second Plans to projects aimed at transferring new technology to farmers. This change in emphasis coincided with the change in government that saw the end of the military dictatorship of Thanom-Prapat and the beginning of a more democratic form of government under Kukrit's Social Action Party. More concern was ostensibly given to the less prosperous members of the society.

Though large scale agricultural projects such as the National Agricultural Extension Project and employment generation schemes were created during this period, and the scope of the Bank for Agriculture and Cooperatives, the Marketing Organization for Farmers, and the Public Warehouse Organization broadened, the plight of the Northeastern farmer generally worsened. Inter- and inner-regional income disparities worsened throughout the 1960s and 1970s. The central government continually viewed Northeastern small-holders as merely lacking modern technology, failing to examine the reasons why they were slower to adopt new techniques than their counterparts in the Central region.

The harshness of the Northeast environment has, by heritage, made the local farmer much more of a risk averter than his Central-Thai counterpart, especially in regard to new crops or techniques that require definite watering schedules. The uncertainty of rainfall patterns and the general lack of exportable surpluses has caused the Northeasterner to concentrate on a single crop that, with luck, allows him to feed his family until the next rainy season. Extension services aimed at changing this known, yet still uncertain farming system for the monoculture of new crops, promising higher profits at the risk of losing a season's paddy, have not been well received. In addition, many of the newly trained extension workers have lacked proper training for local conditions and cultural patterns, and a common lack of initiative has not inspired farmer confidence. Farmers may not have been satisfied with their lot but it is a lot they know.

Throughout the period studied, new projects claimed to have learned from the mistakes and failures of previous projects. However, all too often, subsequent projects were designed and implemented by officials, both Thai and foreign, who failed to consider the desires, aptitudes, and customs of the recipient farmers. This failure to acknowledge the basic survival skills of those who have succeeded in surviving in a hostile environment has doomed many a project to failure prior to even the implementation phase. This is a problem common not only to Thailand with its vast, paternalistic bureaucracy, but to many countries, but it is especially ironic here, where farmers have long been praised for their dynamism and flair in quickly spotting new market opportunities as exemplified in the diversification from rice into cassava, then maize, then sugar and pineapples. It is unlikely that this phenomenon has escaped many Northeasterners and could

explain the silent resentment sometimes observed when officials arrive in villages with the announcement of a new project--the brainstorm of some desk-bound bureaucrat.

While it is true that most Northeastern farmers have not diversified into new cash crops to the extent as those in the Central region, this can be attributed to long-term government neglect as much as geographical distance from markets. It was not until the overt communist activities of the mid-1960s that the central government began actively developing the Northeast and those development efforts concentrated specifically in those areas believed to be most susceptible to communist subversion. It was common knowledge, whether based on fact or not, among villagers of the era that those villages suspected of having communist sympathizers were the first to get roads, schools, and health centers.

Projects implemented during the 1980s began taking steps to include more dialogue with farmers during the implementation phase though this was normally after goals of the project had been set with little or no farmer input. Projects implemented by non-governmental organizations during the past 5 - 10 years have put a greater stress on village self-reliance than on the production of cash crops for a distant market. Organizations working along border areas and in areas still not serviced by irrigation projects have emphasized many of the traditional farming practices that have often been overlooked during the rush to adopt modern technology. The culture of fish in rice paddies has been practiced for centuries in Thailand but has only recently been "re-introduced" by NGOs and government agencies for this type of project is well received by rural farmers and has had high success rates.

Though the quality of life for the Northeastern farmer has improved over the past 15 - 20 years, when compared to statistics for the nation as a whole or for the central region, the rate of improvement in the Northeast has been much slower. The number of hospital beds in Roi Et has doubled since 1973 but there is still only 1 doctor for every 100,000 people in the province, compared to a national average of 15 per 100,000. Per capita income for Bangkok and the Kingdom has more than doubled since 1975 yet the increase for the Northeast and Roi Et have only been 34 and 21 percent respectively. The per capita income of Bangkok now stands at over 8 times that of Roi Et.

Farmers in the Northeast are well aware of these inter-regional inequalities. The harsh drought of the past few years has forced more and more villagers to immigrate to Bangkok and the Central region in search for work. Working conditions for these migrants are quite harsh but they are usually able to send funds to their family members remaining in the villages. Most would prefer to remain in their home provinces but with no industry to provide

income during the dry season, they have little choice but to migrate to the urban areas.

The Sixth Plan will encourage the private sector to participate in the development of the rural agricultural sector. The Fifth Plan also had this as a goal but achieved only marginal improvement in relocating industry outside of Bangkok. It is doubtful that the Sixth Plan will fair much better given the fact that previous government incentives to relocate have met with little success.

However, something must be done. It has been said that the Northeast has been "saved" 3 times. The first instance was the American involvement in the Indo-China war which poured billions of dollars in military and development aid to the region. The second was the construction boom in the Middle East following the oil price increases in the 1970s. This allowed Thailand to export much of its surplus labor to the Mid East and the resulting cash remittances went toward the support of many Northeastern families.

The third "saving" of the Northeast has been the export of cassava products. Marginal land in the region suddenly became productive and farmers were less dependent on inconsistent rainfall for their cash crop. It is now acknowledged that cassava exports have peaked and will undoubtedly decrease in the future as the EEC lowers the current subsidies on local grains.

The question now is what will "save" the Northeast next. Private enterprise is now being asked to take part, the military is now coordinating the Greening of the Northeast Project, but it could be that the time is right for the Northeastern villager to be given his say.

Annex

List of Abbreviation and Acronyms

ADB	The Asian Development Bank
ALRO	Office of Land Reform for Agriculture
ASRCT	Applied Scientific Research Corporation of Thailand
BAAC	Bank for Agriculture and Agricultural Cooperatives
CIDA	Canadian International Development Agency
DLD	Department of Land Development
DOA	Department of Agriculture
DOAE	Department of Agriculture Extension
DOCP	Department of Cooperative Promotion
DOF	Department of Fisheries
DOIP	Department of Industrial Promotion
DOLD	Department of Livestock Development
DPW	Department of Public Welfare
EEC	The European Economic Community
FAO	Food and Agriculture Organization of the United Nations
IBRD	International Bank for Reconstruction and Development
ILO	International Labor Organization
JICA	Japan International Cooperation Agency
KRTC	Kalasin Research and Training Center
MOAC	Ministry of Agriculture and Co-operatives
NEA	National Energy Administration
NIFI	National Inland Fisheries Institute
OAE	Office of Agricultural Economics
OARD	Office of Accelerated Rural Development
OPG	Operational Program Grants
PVO	Private Voluntary Organization
RDI	Research and Development Institute
RFD	Royal Forestry Development
RID	Royal Irrigation Department
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
USOM	United States Operations Mission

Code numbers for Project Area.

- 1 · Buri Ram
- 2 Chaiyaphum
- 3 Kalasin
- 4 Khon Kaen
- 5 Loei
- 6 Maha Sarakham
- 7 Mukdahan
- 8 Nakhon Phanom
- 9 Nakhon Ratchasima /
- 10 Nong Khai
- 11 Roi Et
- 12 Sakon Nakhon
- 13 Si Sa Ket
- 14 Surin
- 15 Ubon Ratchathani
- 16 Udon Thani
- 17 Yasothon

ตัวอย่างโครงการที่ได้ดำเนินการในภาคตะวันออกเฉียงเหนือ

1. โครงการปรับปรุงทุ่งหญ้าเลี้ยงสัตว์
2. โครงการพัฒนาพื้นที่ทุ่งกุลาร้องไห้
3. โครงการพัฒนาแหล่งน้ำ
4. โครงการพัฒนาการเลี้ยงปลา
5. โครงการป้องกันน้ำท่วมและการชลประทาน ห้วยม่ง
6. โครงการสาธิตและทดลอง การจัดการฟาร์มในเขตชลประทาน จ.กาฬสินธุ์
7. โครงการพัฒนานิคมสร้างตนเอง ลำตะคอง
8. โครงการพัฒนานิคมสร้างตนเอง นิมาย
9. โครงการจัดตั้งศูนย์ส่งเสริมการเกษตร อ.ปากช่อง
10. โครงการศูนย์วิจัย และชั้นสูตรโรคสัตว์ ภาคตะวันออกเฉียงเหนือ (ขอนแก่น)
11. โครงการชลประทาน น้ำนอง
12. โครงการจัดหาแหล่งน้ำ จ.อุดรธานี (ไทย - เยอรมัน)
13. โครงการพัฒนาเขื่อนอุบลรัตน์
14. โครงการพัฒนาเขตชลประทาน ลุ่มแม่น้ำคำ
15. โครงการพัฒนาพื้นที่ในเขตชลประทาน (ลำพระเพลิง ลำปาว และน้ำนอง)
16. โครงการส่งเสริมการเกษตรแห่งชาติ (การจัดตั้งเกษตรตำบล)
17. ศูนย์ส่งเสริมและฝึกอบรมอุตสาหกรรมการท่องเที่ยว จ.หนองคาย
18. โครงการศูนย์วิจัย และฝึกอบรมไหม จ.นครราชสีมา
19. โครงการจัดตั้งสถาบันพัฒนาฝีมือแรงงาน จ.ขอนแก่น
20. โครงการจัดตั้งศูนย์ผลิตวัคซีน ป้องกันโรคปากและเท้าเปื่อย อ.ปากช่อง
21. โครงการจัดตั้งเครื่องสูบน้ำ ลุ่มน้ำมูล/ชี
22. โครงการปรับปรุงแหล่งน้ำ จ.อุดรธานี (ไทย - เนเธอร์แลนด์)
23. โครงการพัฒนาแหล่งน้ำขนาดเล็ก จ.ขอนแก่น (ไทย - นิวซีแลนด์)
24. โครงการป้องกันน้ำท่วม และการชลประทาน น้ำสรวย
25. โครงการพัฒนานิคมสร้างตนเอง (ห้วยหลวง คำสร้อย โนนสัง ลำน้ำอูน
อุบลรัตน์ ลำปาว ปราสาท ลำตะคอง)
26. โครงการพัฒนาสระเลี้ยงปลา ในหมู่บ้าน
27. โครงการพัฒนาการชลประทานขนาดเล็ก ในภาคตะวันออกเฉียงเหนือ
28. โครงการพัฒนาเกษตรกรรมโดยอาศัยน้ำฝน ในภาคตะวันออกเฉียงเหนือ
29. โครงการพัฒนาชนบทแบบผสมผสาน ลำน้ำอูน
30. โครงการปรับปรุงเมล็ดพันธุ์พืช
31. โครงการปรับปรุงระบบการจัดการฟาร์ม ในภาคตะวันออกเฉียงเหนือ (ขอนแก่น)

Examples of Major Assistance by Australia

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Accelerated Rural Development Programme Northeast & Southern Thailand	4	Office of Accelerated Rural Development	1969	1972	19,340 (71) 15,500 (72)	To support provincial ARD officers in engineering work, development of water sources, economic and social development and the promotion of occupations for rural people.	
2. Thai - Australian Highway Project Lonsak-Chumpae Highway	4	Thai Highway Department	1970	1975	2,222,000 (71) 2,322,909 (72) 2,468,285 (73) 1,766,072 (74) 858,960 (75)	Construction of this sealed all weather highway from 1970-1975. The final surfacing will be carried out by Thai Highway Department.	This Highway of 104 km provided the first direct link between the North and Northeast. It also facilitated the flow of population and produce as well as the economic development of adjacent land.
3. Pasture Improvement Project Khon Kaen	4	Khon Kaen University	1970	1986	1,383,000 (Total) 32,173 (71) 19,111 (72) 17,062 (73) 28,989 (74) 94,365 (75) 83,201 (76) 32,956 (77) 244,950 (79) 165,729 (80) 226,729 (81) 144,776 (82) 139,408 (83) 34,912 (84) 33,300 (85)	To involve in a pasture research programme, in conjunction with ASRCT and Khon Kaen University. Experts have continued with research into the development of suitable pastures for the Northeast region of Thailand (grasses and legumes).	

Examples of Major Assistance by Australia. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
4. Northeast Water Resources Development			1982	1985	959,158 (Total) 10,275 (82) 184,387 (83) 764,496 (84)		
5. Northeast Village Water Program Phase II			1986	1991	9,836,000 (Total)	In Phase II Australia is continuing to provide technical assistance to Thai agencies in planning, implementing, maintaining and monitoring small scale rural water resource development throughout the seventeen provinces of Northeast Thailand. During this phase emphasis will be placed on the proper handling of water through health education.	
6. Tung Kula Ronghai Project Phase IV			1984	1989	10,400,000 (Total) 7,403 (77) 26,164 (78) 54,965 (79) 245,616 (80) 549,039 (81) 921,798 (82) 638,052 (83) 266,747 (84) 1,552,500 (85)	This project is a multi-sector rural development project which aims to raise living standards in a depressed area of Northeast Thailand. Technical assistance is provided in sectors of groundwater development, water resources, fisheries, upland reforestation, research and extension, community development, land remodelling and technical assistance support.	

Examples of Major Assistance by Asian Development Bank

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Nong Wai Pioneer Agriculture Project	4	RID, DLD, DOAB Department of Cooperative Promotion	1980	1987	360,000 (80)	Consultants to assist the Department of Agricultural Extension, Cooperatives Promotion, Land Development and the Royal Irrigation Department in the operation and maintenance as well as the agricultural development of the Bank's earlier Nong Wai Pioneer Agriculture Project. Under the grant, an irrigation management area of about 300 ha. has been selected to demonstrate proper water management, improved crop technologies and extension cooperative services.	The extension service has concentrated on promoting improved technology for paddy. However, there is a lack of a farm management perspective in formulating recommendations, and there is a need to develop capability in this area. In particular, separate packages of recommendations should be formulated for small farms (under 3 rai) and larger farms. Small farms would benefit from techniques which maximize the use of family labor (eg. buffalo for land preparation, and improved transplanting techniques) while larger farms will seek to replace hired labor with capital (Nong Wai Irrigation Management Seminar, Khon Kaen, Thailand. "Agricultural Extension in Nong Wai: Thailand a Past T&V Bra?", Robert P. Mc Gillop, 1983)

Examples of Major Assistance by Belgium

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Improvement of soil productivity and crop substitution of cassava in Northeast Thailand			1984	1986	N.A.	To elaborate adequate methods of improving the soil by the use of green fertilizers and compost	

Examples of Major Assistance by Canadian International Development Agency (CIDA)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Rural Development Feasibility Study			1981	1981	41,600 (81)	The study's purpose is to determine the feasibility of a three year rural development programme based on self-reliance with disadvantaged communities in the Northeast Region of Thailand. Based on preliminary results, the study aims to develop objectives and an operational guide for the implementation of such a programme.	
2. Supply of potable water to remote communities			1980	1980	10,625 (80)	The Canadian Unicef Communities have provided a grant to supply potable water to communities in North and Northeastern Thailand.	
3. Lahansai Rural Development	1	RDI	1982	1983	250,000 (83)	To construct an irrigation project and food processing plant in a depressed area.	
4. CUSO NBT - Integrated Rural Development in Surin Province	14	CUSO RDI	1981	1985	770,000 (Total) 200,000 (81) 162,601 (82) 200,500 (83)	To raise the standard of living of poor villagers in the Northeast.	
5. Khon Kaen Research and Development Institute	4	Khon Kaen University	1984	1987	4,230,000 (Total) 385,000 (84)	To provide a building, staff training, training facilities, a regional development library and an applied research unit as a resource centre for Northeast Thailand.	

Examples of Major Assistance by Canadian International Development Agency (CIDA). (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
6. Grass-Roots Integrated Development in Tung Kula Bong Hai		CUSO BDI	1984	1989	1,200,000 (Total)	To increase income generating activities in poor villages.	
7. Northeast Fisheries Development Project		DOP	1985	1990	6,200,000 (Total)	To increase protein intake of villagers through upgrading of technical facilities and extension work of Provincial Fish Stations.	
8. UNICEF Rural Services			1984	1987	5,900,000 (Total)	To provide integrated services for women and children in 30 poor villages of the Northeast.	

Examples of Major Assistance by EEC

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Flood Control and Irrigation Huai Mang (Pa Hong Stage I)	10	NBA	1982	1986	24,306,000	Regulation of flood control with pumps. The introduction of Mekong water for dry-season irrigation and the construction of polder dikes, irrigation and drainage system.	
						(Note Grants of US\$ 12.5 million from EEC and US\$ 5.8 million from the Government of Belgium to cover construction and supervision)	

Examples of Major Assistance by FAO/UNDP

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Experimental and Demonstration Farm for Irrigated Agriculture, Kalasin (Phase II)	3	KRTC DOAB RID	1970	1975	41,500 (71) 63,800 (72) 140,000 (73) 207,326 (74) 203,975 (75)	To assist the Government in an experimental and demonstration program for the development and adaptation of modern irrigation techniques in Northeast Thailand.	The "result demonstrations" are further laid out in two different ways: 1) The trial demonstration - in this a number of treatments are involved such as different varieties or different fertilizer doses along with a check plot. At the end of the trail, the superiority of the best variety or the best fertilizer treatment is visually noted and yields recorded in the presence of the farmers. In most cases all the field operations are carried out by the farmer himself under the help and guidance of either the extension officer or the scientist from the research center or both together. This type of demonstration would not only provide visual comparative effect to convince the farmers but would also reveal additional information to scientists to draw broad conclusion involving the variable factors of soil and climatic conditions. The results of this would then lead to package demonstrations.

Examples of Major Assistance by FAO/UNDP. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
							2) Package demonstrations - are conducted on crops which have been introduced for the first time into the area. For example in an area like Lam Pao where irrigation in a particular village has been brought in for the first time, the farmers must be shown how to grow a new crop like soybean, peanut, cotton etc. under irrigation. In so demonstrating, a package of technological practices are applied from the time of land preparation to sowing, and harvesting. All established improved practices are demonstrated in this type so that the farmers may understand by visual observation all the improved techniques involved in growing new crops.
2. Strengthening of the Programme for the Improvement of Irrigated Agriculture in Northeast Thailand (Phase III).	3	KRTC	1976	1979		To continue from the above project (Phase II). This project is extension oriented, the immediate objective of which is to transfer these technologies to the farmers. This is to be accomplished primarily with on-farm agronomic trials and demonstrations. The projects covers 5 areas. (Lanpao, Nam Pong, Lam Phra Plerng, Hong Wai and Kamalasai)	In the 1976 Farm layout Improvement area, all farmers were enthusiastic to grow their first dry season crop, but due to the lack of experience with this new method of irrigated farming, maximum yields were not obtained. Farmers were not familiar with the new methods of land preparation, spacing, water control, weed and disease control and fertilizer applications.

Examples of Major Assistance by the Ford Foundation

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
1. Experimental programme in rural development in Thailand		Faculty of Agriculture Khon Kaen University	1975	1977	163,000 (76) (Total)	The project concentrated in Northeast Thailand, to improve agricultural and water management technology, education and health, research and evaluation capacity and understanding of rural development processes at local and national levels and improve government planning and management processes.	
2. Cropping Systems for Rainfed Agriculture in Northeast Thailand.		Faculty of Agriculture Khon Kaen University	1975	1977	60,000 (76) (Total)	A research and extension project to develop suitable cropping systems which were to help increase and stabilize farm production through better use of limited resources in the region. The project area was the Korat Triangle, covering 11 provinces.	Certain cultural practices, particularly land preparation, are key factors for the success of growing peanuts after rice and kenaf, especially in Suri and Buriram. Thus, it appears that with the farmers' techniques, our cropping patterns of growing field crops after rice might be possible under similar environmental conditions. This suggests that not only theory but also techniques and experience from the farmers themselves should be used in forming new cropping systems. In future, thus plan to place a much greater reliance on using the experience of innovative farmers in KRU research.

Examples of Major Assistance by Ford Foundation (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
3. Development of a Rural Resource Systems Center for Policy Research on Rural development in Northeast Thailand		Faculty of Agriculture, Khon Kaen University	1985	1988	412,500 (Total)		
4. Support for Case Studies of Deforestation and Changes in Land Use in Northeast Thailand		Faculty of Forestry, Kasetsart University	1985	1986	112,000 (Total)		
5. Support of exploratory research concerning small scale irrigation development in Northeast Thailand		Faculty of Engineering Khon Kaen University	1985	1985	8,900 (Total)		
6. Support for action research on small-scale water resource development in Northeast Thailand.		Faculty of Engineering Khon Kaen University	1985	1987	243,000 (Total)		

Examples of Major Assistance by France

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Agronomist attached to Mekong Project	3	MOAC	1973	1978	12,000 (73)		

Examples of Major Assistance by Federal Republic of Germany

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	----- End			
1. Lamtakhong self-help settlement, agricultural extension service, Advisor for co-operatives	9	Department of Public Welfare	1972	1976	400,000 (72)	Demonstration farm and training centre	
					400,000 (73)		
					898,354 (74)		
					898,354 (75)		
					909,583 (76)		
2. Pimal self-help settlement	9	Department of Public Welfare	1974	1977	1,125,514 (74)	A similar farm as at Lamtakhong project, but concentrating more on mulberry growing and silkworm breeding.	
					1,125,514 (75)		
					1,139,583 (76)		
					1,139,583 (77)		
3. Agricultural Extension Service, Pakchong	9	Department of Agricultural Extension	1977	1982	991,054 (77)	The Agricultural Extension Service Project in Pak Chong is in a very active implementation stage with Farmer Associations expanding and a crop insurance system established	
					991,054 (78)		
					991,054 (79)		
					2,687,054 (80)		
					2,220,000 (82)		
4. Animal Health Project, Khon Kaen: Part of the Livestock Development Project, veterinary extension service and veterinary laboratory.	4	Department of Livestock Development	1977	1987	3,330,000 (Total)	Training programme in Community Medicine at Khon Kaen. To provide veterinary extension services and veterinary laboratory	
5. Ubol Ratana Dam Flood Protection Study (BGAT): Dam and irrigation measures.	4		1981	1982	417,000 (81)		
6. Thai-German Land Settlements Promotions Project in the North and the Northeast, Phase IV.	15	DPW	1982	1986	4,370,000 (Total)	Integrated rural development programme in three settlement areas. (Khuan Phumiphol, Lam Nam Nam and Lam Don Noi)	

Examples of Major Assistance by Federal Republic of Germany. (Continued)

Project Title	Project Recipient		Duration		Donor US\$	Objective	Comments
	Area	Institute	Begin	End			
7. Master Plan, Feasibility Study for Water Supply of the City of Udon Thani.	16		1981	1984	N.A. (83)		
8. Study and Final Design on the improvement of Ubol Ratani Dam.	4		1981	1984	N.A. (83)		
9. Village Family Planning and Health Care Project		Production 1980 and Community Department Association	1980	1984	1,490,000 (Total)	To support family planning measures in 10 districts in Northern and Northeastern Thailand	
10. Irrigation Project Nam Pong II	4		1983		20,000,000 (Total)		
11. Water Supply Udon Thani	16		1984		7,780,000 (Total)		
12. Ubon Ratana Dam improvement	4		1983		7,140,000 (Total)		
13. Project Formulation and Detailed Designs for Integrated Development of the Lam Dom Noi Land Settlement.	15	NBA	1981	1984	305,000 (Total)	1. To review and up-date the existing feasibility study on water resources development as well as to identify and formulate an integrated development plan for the project area, 2. To prepare detailed designs and cost estimates for all the components of the project	

Examples of Major Assistance by Federal Republic of Germany. (Continued)

Project Title	Project Recipient		Duration		Donor	Objective	Comments
			Area	Institute			
14. Lower Nam Kam Irrigation Project	8	RID NEA	1980	1984	29,343,000 (Total)	Contribute to the improvement of the income and living levels of the local farm population, through year-round irrigation by pumping to be provided for a gross area of 11,230 ha.	

Examples of Major Assistance by IBRD

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Northeast Thailand Irrigation Improvement Project	3 4 9	RID	1974	1978	7,000,000 (74) (Total)	Services to be provided by consultants at Lam Phra Plergn, Lam Pao and Nam Pong include:	
Consultants to help the Royal Irrigation Department in the preparation of designs and contract documents, supervision of construction, and guidance in establishing operation and maintenance procedures for three irrigation areas: Lam Phra Plerng, Lam Pao, Nam Pong.						(a) designs, contract documents and construction supervision for work on the main canals and laterals, and for the construction of the canal service roads;	
						(b) preparation of topographic maps to be used as a basis for tertiary system development;	
						(c) preparation of plans, designs and work programmes for rehabilitation and improvement of the tertiary systems;	
						(d) the establishment of more efficient procedures for operation and maintenance in each of the three sub-projects.	
2. Feasibility studies for Stage II of Nam Pong and Lam Pao; development of areas downstream from the existing Lam Takhong Reservoir.	3 4 9	RID	1974	1976	2,200,000 (Total)	Consultants undertook surveys and mapping, and prepared feasibility studies for the following projects:	
						(a) Stage II of the Nam Pong Project, which will serve a population of 20,000 people...	

Examples of Major Assistance by IBRD. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
						(b) Stage II of the Lam Pao Project (additional areas of 24,000 ha. on the right bank and 12,000 ha. on the left bank);	
						(c) Development of areas downstream from the existing Lam Takhong reservoir (new systems to serve 10,000 ha. and rehabilitation of existing systems serving 10,000 ha.).	
3. Consultants to help prepare a rural infrastructure project in the Northeast.	3 4 9	RID	1974	1978	300,000 (74)	Included in this N.E. Thailand Irrigation Improvement Project is US \$300,000 for consultants' services to help prepare a future rural infrastructure project in the Northeast.	
4. Experts and advisor to assist six Government rice stations	4 9 12 14 15	DOA	1974		300,000 (74)	Experts and advisors would help implement the rainfed rice improvement component by providing assistance to six government rice stations at Phi Mai, Ubon, Khon Kaen, Sakhon Nakhon, Surin and Chuaphae.	
5. Second Irrigation Project	3 4 9	RID	1978		80,000,000 (Total)	This project will benefit some 21,000 farmers, among the poorest in the country, who grow rice for subsistence under for rainfed conditions. Provision of irrigation facilities will enable	

Examples of Major Assistance by IBRD. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
						them to cultivate improved varieties and grow crops annually. Year-round irrigation on two existing reservoirs at Lam Pao and Lam Takhong near the city of Nakorn Ratchasima. The project includes the construction or improvement of canals and drains as well as facilities for operation and maintenance.	
6. Regional Cities Development	4 9	HOI	1985	1989	28,000,000 (Total)	Improvements to municipal infrastructure and services in Chiang Mai, Khon Kaen, Korat and Songkhla and technical assistance to the Interior Ministry and local governments.	
7. National Agriculture Extension Project I (NABP I)		DOAB	1977	1982	28,000,000 (Total)	Total project cost are \$59.5 million. USAID to contribute \$3 million as loan, the remainder was financed by RTG. The project was intended to expand and strengthen existing DOAB extension services in 33 provinces.	The final evaluation report of the joint evaluation team of USAID and the government included the following. a. Currently most subject matter specialists view the research station as a means of solving immediate problems rather than as a continuous source of new knowledge. A formal linkage to facilitate the diffusion of research results to the farmers and to ascertain the needs of farmers through extension is recommended.

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Examples of Major Assistance by IBRD. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			

b. Although there are many remaining problems related to farmer adoption of recommended crops and practices (e.g. insufficient location specificity in the recommended packages, lack of dependable prices for products, unfavorable changes in agroclimatic conditions and nonavailability of affordable agricultural inputs), there is clear-cut evidence that farmers have been adopting new practices for certain crops. The recommendation given is that "research needs to be conducted to facilitate the development of recommendations which are adapted to specific conditions that exist in the various amboes."

c. It appears that career opportunities for the KT and KA are limited. Additional incentives appear necessary if maximum production is to be realized.

d. There is a definite trend of greater contact farmers' contact with KTs over a period of time, as would be expected.

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Examples of Major Assistance by IBRD. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
7. National Agriculture Extension Project II (NAEP II)		DOAE	1980	1984	40,000,000 (Total)	Total project cost are \$70 million, RTG share \$30 million. The project was continued from NAEP I expand and strengthen the DOAE's extension services in 40 provinces not cover under NAEP I.	e. Contact farmers were reported to be in increasing association with extension staff, especially the Kaset Taebons who have longer tenure in the subdistrict. Farmers noted KTAs the source of assistance for insecticide, seeds, equipment, and advice. It was also noted that the longer a KT remained in the tambon, farmers seemed to be more reliant upon the KT than upon the headman, COF (contact farmer), KA or neighbors.

Examples of Major Assistance by International Labour Organization. (ILO)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Employment and income generation among rural workers of Khon Kaen	4		1983		6,500 (83)	To develop integrated farming methods, to develop suitable training methods for rural workers, to form small groups for common action in the village, and to increase per capital income of rural workers.	
2. Expansion of the Mongkhai Industrial and Boat Building Training Centre	10	NEA Ministry of Education	1986	1988	4,978,958 (Total)	The main objectives are to re-equip the centre in Mong Khai and to upgrade the skills of its instructors, and to increase the in-take of trainees, thus enhancing the centre's ability to fill the urgent need for trained manpower in the various trades connected with boat building and related industries	
3. Vocational Rehabilitation	4		1971	1975	12,000 (71) 30,000 (72) 30,000 (73) 20,000 (74) 14,400 (75)		

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Examples of Major Assistance by Israel

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Khon Kaen University Farm	4	NBA DPW Faculty of Agriculture Khon Kaen University	1970		25,000 (71) 4,000 (72)	Work on 60 rai experiment plot has been going on under the supervision of Israeli experts. Funds to facilitate irrigation of the 800 rai commercial demonstration farm have already been approved. The experiment included groundnut, corn, sorghum, cotton, tomatoes	
2. Committee for Co-ordination of Irrigation of the Lower Mekong Basin: Fishery Survey and Studies	10	NBA	1974	1974	36,000 (74)	SRR Feasibility Report (Israel's share) Co-operating jointly with the Government of Netherlands.	
3. Committee for Co-ordination of Investigation of the Lower Mekong Basin: Nam Pong Pioneer Project of Resettlement and Irrigated Agriculture (Physical Planner)	4	Department of Public Welfare	1975		36,000 (75)		
4. Committee for Co-ordination of investigation of the Lower Mekong Basin: Fishery Study Tour			1975		18,900 (75)		
5. Committee Co-ordination of Investigation of the Lower Mekong Basin: Survey and Instruction Agricultural Cooperatives at above mentioned Project			1975		9,000 (75)		

Examples of Major Assistance by Israel. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
6. Committee for Co-ordination of Investigation of the Lower Makong Basin: Two courses: guided Credits and Physical Planning			1975		30,000 (75)		
7. Pilot Fish Farm at Lam Takong	9		1976		64,000 (76) 3,750 (77) 6,700 (78) 7,800 (79)	To establish a demonstraion and training centre for inland fish culture, based upon co-operative operational and marketing principles.	
8. Nam Pong/Huey Luang/None Sung Integrated Rural Development Project	4 16	Department of Public Welfare	1977			To utilize the experience and knowledge gained at the Resettlement project of the Mekong Committee, by duplicating the Agricultural Input/Output and Extension Centre, within the framework of cooperative farming.	

Examples of Major Assistance by JICA

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Sericulture Development Project in Sericulture Research and Training Centre, Korat and for (4) Sub-Centres	4	DOA	1969	1980	185,000 (71)	To establish for the dissemination of mulberry and silkworm eggs an application of techniques developed. Also undertaken was cooperation at pilot villages in rearing young worms for farmers	
	7				181,655 (72)		
	9				145,500 (73)		
	15				158,526 (74)		
	16				195,500 (75)		
					138,700 (76)		
					529,784 (77)		
					446,749 (78)		
					68,181 (79)		
					62,897 (80)		
2. Institute for skill Development in the Northeast, Khon Kaen	4	Department of Labour	1977	1981	4,100,000 (Total)	To provide potential skilled workers in the Northeast provinces with practical and theoretical training in the field of industry and agriculture.	
3. Animal Health Improvement Project in Foot-and-Mouth Disease Vaccine Production Centre, Pak Chong and Diagnostic Laboratory Centre, Tung Song	9	DOLD	1977	1985	294,003 (78)	To promote the technology of animal health, through animal health survey, diagnosis and practical experiments on vaccine production	
					272,727 (79)		
					396,812 (80)		
					211,959 (81)		
					114,100 (82)		
					437,645 (83)		
364,679 (84)							
649,800 (85)							
4. Feasibility Study for the Lower Northeast Medium-Scale Irrigation Package Project		RID	1982	1983	142,400 (83)		
					159,067 (84)		
5. Agricultural Development Research Project, Khon Kaen (Japan-US Joint Cooperation)		DOA	1983	1988	144,544 (84)	To strengthen Agricultural research activities in the Northeast part of Thailand.	
					707,200 (85)		
6. Basic Design Survey for Agricultural Development Research Centre in Northeast Thailand			1982	1983	N.A. (83)		

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Examples of Major Assistance by JICA

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
7. Feasibility Study for Road Development in the Northeastern Region of Thailand		Dept. of Highway	1981	1985	67,320 (83)		
					71,487 (84)		
					792,600 (85)		
8. Agricultural Cooperatives Promotion Project			1984	1989	56,250 (84)	To strengthen the cooperatives in the Northeastern part of Thailand	
9. Feasibility Study for Immediate Improvement and Construction of Sanitary district Water Works Project for North-eastern Region of Thailand		PWA	1984	1985	N.A. (84)		
10. Korat Sericultural Research and Training Center	9	DOA	1984	1985	64,000 (Total)		
11. Equipment for Korat Sericulture Promotion	9	MOAC	1984	1985	103,000 (Total)		

Examples of Major Assistance by Netherlands

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Ley Farming on Upland Soils: Soil improvement for agriculture, Northeast	5	Khon Kaen University	1979	1985	324,000 (Total)	The objective of this project is to investigate the possibilities of developing a stable, low cash input system on infertile upland soils in North-East Thailand, by integrating ley pastures with cash cropping and livestock.	<p>Small cash input dairying on legume ley pastures and farm-grown and village found feed is extremely profitable compared to any other upland farming system in the area and is very well accepted by poor farmers on infertile soils who had never had previous experience of either dairying or improved pasture production.</p> <p>There is encouraging evidence of an increasing maturity in the farmers' animal husbandry techniques as they gain experience and deliberately select the most suitable management regimes for their enterprises.</p> <p>It is obvious that farmers tend to copy techniques they see adopted by other farmers of similar social standing. Attempts are being made to use this fact in extending appropriate technology.</p> <p>This unique Project provides an excellent opportunity to continue to monitor production parameters and to demonstrate a viable small-cash input farming system for infertile</p>

Examples of Major Assistance by Netherlands. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
							upland soils that is also conservative of upland soil resources.
2. Farm Benefits Project, Kalasin (Mekong Committee)	3	NBA	1978	1980	17,000 (78) 350,000 (79)	To measurement campaign on farm management	
3. North East Thailand Pump Irrigation Project: Pumps and related equipment, Mun/Chi Basin (Phase I)	1 3 4 6 8 10 11 13 15 17	National Energy Administration	1979	1982	1,264,150 (82)	The project foresees in the installation of 26 pumps at sites along the Mun and Chi rivers. The pumps will provide irrigation for the farming of paddy and upland crops in the dry season.	
4. Pumps Ubolratana Dam Resettlement Area	4		1979		15,000 (79)		
5. Thai-Netherlands Integrated Development Project: Resettlement, Land improvement water resources Development., Udon Thani	16	Department of Public Welfare	1979		2,000,000 (79) 285,000 (80) 300,000 (81)	To improve of living conditions of about 2000 poor farmer households in the Ubonratana, Non Sang and Huey Luang resettlement areas. The main targets are water resources development irrigation, agricultural improvements (among others by system farming), credit facilities and child care and nutrition schemes. The project's office is at Udon Thani.	
6. Feasibility Study for the development of the Lower Mun and Chi Basin (Mekong Committee)	13	NEDECO	1980	1982	2,055,000 (80) 253,169 (81) 221,205 (82)	Studies on the development of irrigation and flood control in the basin of the lower Mun and Chi rivers, tributaries of the Mekong, were started	

Examples of Major Assistance by Netherlands. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
7. Water Management Support Programme (Mekong Committee)	6	National Energy Administration	1980	1986	388,571 (Total)	by the Netherlands engineering consultants' firm NBDECO. This project is aimed at the formulation and the testing of effective water management and related practices for pump irrigation in Northeast Thailand.	
8. Lam Pao Service Centre Project	3	BAAC	1980	1986	449,100 (Total)	To establishment of one central service centre Project area, Kalasin Province, to grow dry season crops. The objective is to help to establish farmers' organization with the capability to repay loans and be effective in achieving socio-economic benefits for its members through promotion of profitable cropping.	
9. Nam Songkran Basin: Hydrographic and Topographic Surveys and Studies.	8 10 12 16	NBDECO	1981	1985	1,400,200 (Total)	The surveys and studies will serve for the preparation of a mathematical model of the flood pattern and flood conditions in the river and its flood plains. The model will be essential for planning flood control works in the Nam Songkran Basin. This Basin is the second largest tributary of the Mekong in Thailand and covers an area of 12,700 sq m. The study is being conducted by the	

Examples of Major Assistance by Netherlands. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
						Netherlands Engineering Consultants NEDECO.	
10. Pilot Freshwater Fish Farm Lam Pao (Mekong Committee)	3	NBA	1981	1985	739,500 (Total)	The construction of the Freshwater Fish Farm at Lam Pao, Kalasin. The fish farm will have a total water surface area of 128 rai and will house 72 ponds.	
11. Pump Irrigation on Mun/Chi, Phase II	1 3 4 10 11 13 15 17	National Energy Admini-	1983	1985	1,003,000 (Total)	To continued from Phase I	Phase I and II construct 66 pumps installed in 10 provinces in Northeast.
12. Shallow Well Drilling Rig Project for Prasart Land Settlement	14		1983		1,017 (83)		
14. Thai/Netherlands North East Agricultural Development Project			1986	1989	2,095,800 (Total)		

Examples of Major Assistance by New Zealand

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Donation of pigs at Khon Kaen	4		1971		4,868 (71)		
2. Road Project Borabu/Buriram	1 6	The Highway Department	1966	1971	236,701 (71) 51,980 (72)		
3. Assistance to Pasture Demonstration Farm, Borabu.	6	DLD DOLD Khon Kaen University	1968	1975	17,565 (71) 16,250 (72) 10,000 (73) 3,800 (74) 22,667 (75)	To help design improved methods of harvesting townsville stylo seed.	
4. Road Survey and design, Prathai to Yasothon	6 9 11 17	The Highway Department	1972	1973	47,750 (72)	The survey and design of a new highway from Prathai to Yasothon	An economic appraisal was completed on some 153 km. of highway South of Ban Kao Sai
5. Northeast Livestock development Programme (with IBRD)	6	DLD DOLD Khon Kaen University	1977	1981	180,000 (77) 150,000 (78) 178,000 (79) 200,000 (80) 100,000 (81)	Pasture improvement, seed production, extension and training in selected villages.	The fairly reliable wet season rainfall enables grasses and legumes to be planted. There are sufficient dry periods during the wet season to harvest grass seed. The cool days and short nights of the dry season when very little rain falls is ideal for pasture legume seed production.
6. Small Scale water Resources Project at Khon Kaen University	4	Khon Kaen University	1981	1986	78,000 (81) 111,000 (82) 69,320 (83) 2,200 (84) 23,000 (85)	To develop low cost water storage and distribution systems at the village level in the arid Northeast.	The project developed a successful approach for small scale irrigation development, using farmer participation to build cheap flexible weirs to divert water for supplemental irrigation in the wet season and store water for dry season use.

Examples of Major Assistance by New Zealand

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
7. Village Based Water Supply Project	2	Local Administration Department, Chaiyaphum Province Office	1983	1988	360,969 (83) 195,600 (84) 273,000 (85)	To develop simple low cost agricultural water storage and distribution systems in the Northeast province of Chaiyaphum.	
8. Ubon water Resources Development	15	Khon Kaen University	1985	1986	63,000 (85)	To construct small weirs in Ubon Province, North East Thailand.	The weirs are important to farmers in Ubon Villagers like the type of weir (K.K.U.-N.Z) which has a crest which can be adjusted by using stop logs. Most villagers can see the benefit of weirs so they are willing to participate in the construction for free. They realize that the benefit of weirs is much greater than the wages they would have been paid. All these factors mentioned indicate that by adopting the design of K.K.U.-N.Z. weir and implementing the procedures of the K.K.U.-N.Z.-Ubon project, we will be able to reach the project goal.

Examples of Major Assistance by Switzerland

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Flood Control and Irrigation of Nam Suai BASIN	10 16	NBA	1980	1985	19,700,000 (Total)	About 20,900 ha. of land in the flood plain will be irrigated by electric pump when project is implemented.	

Examples of Major Assistance by United Nations Industrial Development Organization (UNIDO)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Industrial Expansion in the Northeast workers of Khon Khen	4	HOIW	1983	1985	453,585 (Total)	To provide techno-economic services for local entrepreneurs or agr-based small to medium scale industry.	

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Examples of Major Assistance by USAID

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Land Settlements	3	DPW	1979	1984	4,200,000 (Total)	To improve agricultural productivity through appropriate land use in eight pilot areas of the Northeast (Huay Luang, Rhom Soi, Non Sang, Lam Nam Oon, Ubolratana, Laxpau, Prasat, Lantakhong)	Overall, the research findings provide considerable evidence of initiation of technological change among project beneficiaries. Among the strongest indications of this are increased crop diversification, increased use of high yield seed varieties (especially with respect to rice), increased use of fertilizers and pesticides, and improvements in patterns of farm management (i.e., cropping patterns resulting in better soil and water conservation). There were also indications of improved standards of living, although the majority of land settlement farmers remains poor under most reasonable criteria. Considering the short period of time in which the project was operational, the project would have to be judged relatively successful in initiating technological and economic change.
	4						
	7						
	9						
	12						
	14						
	16						

Examples of Major Assistance by USAID (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
							These positive indications are offset to some extent by consistent evidence that the observed technological changes have thus far taken place on a small-scale bases. The evidence suggests that settlement farmers have not yet accepted the technologies advocated by the project to the extent that they are willing to commit themselves fully to the new technological regimes and thus engage in the new technologies only partially as a risk-minimization strategy. Also dampening the relatively positive nature of the findings are the facts that the majority of settlement farmers remain heavily dependent upon rainfall for agriculture, lack the necessary capital to engage fully in the advocated technology and simultaneously have at best marginal access to credit markets, and (due in part to a lack of cooperative efforts among themselves) are in general unable to market production on favorable terms.
2. Village Fishpond Development	1,2,3 4,5,8 9,10	RTO NIFPI	1979	1981	442,000 (79)	3 year project to provide selected villages in Northeast Thailand	In comparing the Village Fish Pond (VFP) targets and

Examples of Major Assistance by USAID (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	Bnd			
	12, 14 15, 16					with year round access to supplemental water supplies and fish protein.	<p>accomplishments to date, the evaluation team found that in broad economic and social terms the VPP is having less impact that was anticipated, due, in part, to the fact that the project was over-designed and lacked strong management.</p> <p>Welfare of the villagers, as indicated by increased incomes from grater production and sale of fish, garden and orchard crops, livestock and surplus rice has not improved significatly as a result of the VPP. Fish production levels in the few pond harvested are estimated to be about 5 kgs of fish per person, compared to the project target of 10 kgs per person. This could have been substantially increased if the project had provided more adequate pond design and construction, better management, and introduction of improved fish production techniques as the village level.</p> <p>The social impact of the project is mixed to date. In some a villages a very positive feeling has developed regarding the pond. Here, the people perceive the pond as their own and take an active interest in its</p>

Examples of Major Assistance by USAID (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
							management for fish production and multiple uses. In these cases, a significant impact of the pond on village life can be predicated. In other project villages, however, such a positive attitude does not appear to be developing, and neither the planned social nor economic benefits of the project are being fully realized.
3. Northeast Small Scale Irrigation	1,3,8 9,11 15	DOAB RID BAAC DLD	1980	1985	8,600,000 (Total)	A five years project to improve utilization of small scale resources for increased agricultural productivity	
4. Decentralized Development Management	4,6 13,15 17	OARD CDD	1981	1986	10,600,000 (Total)	To help strengthen capability at the tambol and amphoe levels in planning, designing and implementing projects and programmes responsive to the needs of local people. Resources are concentrated on 97 villages located in 5 provinces of Northeastern Thailand.	
5. Northeast Rainfed Agriculture Development	2,8 11,13	DOCP OAB DLD DOA DOAB RFD DOP DOLD	1981	1988	10,000,000 (Total)	To develop a research and extension system which is readily accessible and responsive to the individual needs of the farm families and communities in rainfed areas of Northeast Thailand.	The project management should improve material in a farming systems context by utilizing the information, knowledge and lessons learned from project implementation for training purposes. The project management should develop and implement a management system which involves increased farmer and villager involvement in

Examples of Major Assistance by USAID (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
6. Kho Wang Rural Resources Formation	17	CARE	1985	1989	357,600 (Total)	To assist in producing and marketing cash crops and improving water utilization by farmers. Promotion of rural based small industries and nutrition education activities. Located in Yosothon Province, Northeastern Thailand. Total project cost is US\$ 553,300	the management of project activities (Mid-Term Evaluation Report)
7. Khon Kaen University Research Development Project		RDI	1983	1989	2,000,000 (Total)	To develop KKU research capabilities to conduct research relevant to the development of the Northeast Region.	
8. Sericulture Settlements	1,3,4,7 8,9,10 12,14 16	BAAC DPW	1976	1980	1,800,000 (Total)	To support the introduction of modern sericulture technology in the Northeast by the Royal Thai Government Under this project USAID provides financial assistance for infrastructure and applied research and training concerning the production and processing of silk cocoons. The project directly benefits 1,000 farmers in 10 northeastern land settlements (Prasat, Lam Dow Noi, Lam Doy Yai, Khom Sai, Kuchinarai, Lam Pao, Uhol Ra' Dam, Chiang Pin Phon Phisai, Ban Kruat)	The achievement of the Project's goal is increasing the family income of participants by fifty percent in five years is seemed to depend upon two main factors, increases in cocoon production and prices. The production problem could be solved by the improvement of mulberry production, and the silk worm rearing skills of the farmers. The Project's supervisors and extension workers in most settlements appear to be doing an effective job of assisting settlers with mulberry production and worm rearing. The project faces the problem of recruiting new

Examples of Major Assistance by USAID (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
9. Lam Nam Oon Integrated Rural Development Project	12	BID	1977	1985	4,600,000 (Total)	To increase irrigated agricultural production The main components of this project are construction of an on-farm water delivery and drainage system, adaptive agricultural research, and extension and training in irrigated agricultural practices and water management to RTC	participants up to the target. This problem is very serious due to several constraints. Ban Kruat settlement, constrained by security problem, is unable to expand its membership. Prasat settlement is constrained by the mulberry production problem. Kuchinarai just unable to expand further due to the small number of settlers. Lam Dom Yai seems to have a communication problem between extension workers and farmers. Chiang Phin has a small proportion of low income settlers who are interested in silk worm rearing, many of them prefer non-farm work since they live near the provincial city. It is believed that the project should be redesigned considering constraints on credit, mulberry production, and farmer training at village level. A strategic orientation existed from the outset, particularly with the inclusion of a recognition of the need for private sector involvement in dry season crop production and marketing and a program for generating this involvement, the economic return of the project would have been substantially greater.

Examples of Major Assistance by USAID (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
						personnel and farmers. USAID's contribution to this project consists of technical assistance to the RTG project staff and support for research, training and extension activities in the Lam Han Oon area.	
10. Seed Development I	3,9	DOAB	1975	1981	3,900,000		
11. Seed development II	3,9	DOAB	1982	1987	6,200,000		To complete the institution building process begun under Seed I so that the Royal Thai Government will be able to maintain a comprehensive and efficient seed program that cost-effectively increases farmer's use of high quality seed while steadily increasing the role of the private sector to supply such seed. Project area of USAID Loan is at Kalasin and Nakhon Ratchasima
12. PVO/OPG **			1976	1979			To multiply and improve local level development efforts in Thailand within the priority sectors of AID assistance (Food and Nutrition, Health and Population, Education and Human, Research and Development)
13. PVO Co-Financing I **			1980	1985	5,000,000		To follow on the PVO/OPG
14. PVO Co-Financing II			1986	1992	5,000,000		To follow on the PVO Co-Financing II

Examples of Major Assistance by USAID (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
15. Ubon Micro Enterprise Extension Project	15	CARE	1986	1987	115,709	Total Project is US\$ 155,728. To design model for micro enterprise extension. The project include in 4 sections. 1. Agricultural base and marketing 2. Small commercial shop 3. Cottage industry 4. Village cottage industry	
16. Agricultural Technology Transfer Project (ATT) †††		MOAC	1985	1989	5,000,000	To develop technology and import of technical know how and transfer to farmer and exporter 1) To improve the production efficiency and quality standardization concern with requirement and competition in world market. 2) To increase the high potential agricultural products in purpose to import substitution.	

Note:

- † See Examples of Major Assistance by USAID to RDI
- †† See Examples of Major Assistance by USAID to PVO
- ††† See Examples of Major Assistance by USAID to ATT.

Examples of Major Assistance by USAID/PVO

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
1. Rural Womens Development Program		TAP/GGAT	1975	1979	55,000		
2. Credit Union and Credit Union Training Development		TAP/CULT	1975	1979	77,000		
3. Food & Nutrition Devel.		TAP/POSU	1976	1979	133,765		
4. Village Community Devel.		YMCA	1976	1979	142,678		
5. Better Family Living.		Thai Home Economics Association	1976	1979	99,918		
6. Integrated NFB to Promote Development Among Hilltribe in Northern Thailand		WBI/MOB	1976	1979	172,515		
7. Artificial Fish Propagation Project		FPST/BST	1977	1982	125,000		
8. Development of Rural Youth Agricultural Club		HOAC	1977	1981	297,825	Note 247,825 - PVO/OPG 50,000 - PVO/CO FI I	
9. Rural Infant & Child Care Centers		TAP/MALAN	1978	1982	322,409		
10. Training for PVO		DAS	1978	1978	21,351		
11. Development of Ban Nam Yao Hospital		TDH	1978	1979	75,000		
12. Development of AG Co - operative in Thailand		CLUSA	1978	1979	165,000		
13. Hilltribe Youte Leadership Training		THCP	1978	1982	35,485	Note 32,000 - PVO/OPG 3,485 - PVO/CO FI I	
14. Skills Training for Rural Youth		TAP/GGAT	1978	1982	166,701		
15. Amerasian Outreach		PSBF	1978	1982	200,000	Note 150,000 - PVO/OPG 50,000 - PVO/CO FI I	

Examples of Major Assistance by USAID/PVO. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
16. Promotion Rural of Development Through Women		NCWT	1978	1980	29,000		
17. Tambon Development Project		IHAP	1978	1980	249,200		
18. Women Development Through Non-Formal Education		CBS	1978	1982	478,300		
19. Implementation of Agricultural Cooperatives Plan		CLUSA	1979	1980	225,000		
20. Educational & Medical Services for Children in Klong Toey Slum		CBS	1979	1983	93,000	Note 58,000 - PVO/OPG 35,000 - PVO/CO FI I	
21. Assistance to Amerasians		PSBF	1979	1982	160,000	Note 135,000 - PVO/OPG 25,000 - PVO/CO FI I	
22. Devel. of Ban Nam Yao Hosp. (Tom Dooley Memorial Hosp.)		TDH	1979	1983	517,000	Note 380,000 - PVO/OPG 137,000 - PVO/CO FI I	
23. Rural Vocational Training & Nutrition Project		YNCA	1980	1982	231,340		
24. NPB for low income women in Northeast Thailand		ORF	1980	1981	38,695		
25. Community Services Center for Disadvantaged Children		IHAP	1980	1982	73,945		
26. A Village Management System for Integrated Rural Development		TERM	1980	1983	138,000		
27. Expansion of Yuwa-Kaset-Thakorn (4-H) Program		MOAC	1981	1983	492,466		
28. Youth Development Project		IHAP	1981	1984	311,886		

Examples of Major Assistance by USAID/PVO. (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Evaluation
			Begin	End			
29. Thailand's Deaf Community Project		IHAP	1981	1983	118,815		
30. Y-K Foundation Initiating Project		YKF	1981	1984	147,935		
31. Training for Social Development		TAF/CSWT	1981	1983	75,349		
32. Food & Nutrition--Rural Development Center for Southern Thailand		TAF/PSU	1982	1985	437,111		
33. Rural Development thru NFE Training for Women		CRS	1982	1985	152,100		
34. Rural Outreach Program		TAF/PSU	1982	1985	171,174		
35. Vocation Center for Young Girls in Kort		YWCA	1982	1985	66,700		
36. Southern Thailand Experimental Project		WEI/DNFE	1982	1985	405,285		
37. Assistance to Older Amerasians		PSBF	1982	1985	63,000		
38. Southern Youth Enterprise Development		IHAP	1983	1985	478,074		
39. Community Based Integrated Tambon Development		SCF	1983	1986	385,000		
40. Hillside Youth Training Village Development		Thai Hillcrafts Foundation	1983	1985	120,000		

Examples of Major Assistance by USAID to RDI (\$2 million)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			----- Begin	End			
1.Improvement of Native Chicken Rasing in Rural Areas			1984	1985	13,416		
2.Diarrhoeal Diseases Caused by Rotavirus			1984	1985	9,362		
3.Development of Khon Kaen Provincial Health Information System			1984	1985	9,157		
4.Effect of Village Fishery Projects to Socio-Economic and Health Status			1984	1986	19,986		
5.Forage Crops Production Techniques for Livestock Improvement in Northeastern			1984	1986	18,520		
6.Cashewnut (Anacardium Occidentale linns) Research Development Project (CRDP)			1985	1987	16,904		
7.Swine Breeding Methods of Small Farmers in Khon Kaen and Sakon Nakhon			1985	1985	10,842		
8.Animal Production Development for small holders in Poo Keaw Wildlife Conservation Region, Chaiyapoom			1985	1987	N.A.		
9.The Development and Improvement of Small Animal Production for Small Holders in the Northeast			1985	1987	19,400		

Examples of Major Assistance by USAID to RDI (\$2 million) (Continued)

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Comments
			Begin	End			
10. Use of Soil and Fertilizer Technology to Improve the Yield of Papaya and the Income of Small Farm Holders in Northeast			1985	1986	19,240		
11. Studies on Beekeeping in Northeastern Thailand			1985	1987	19,388		
12. Protein Increment in Water Hyacinth for Feed Production			1985	1986	15,908		
13. A Study on Protein and Energy Requirements of Native Chickens in Northeast Thailand			1985	1986	8,772		
14. Other Projects include Energy, Engineering, Public Health, Education 16 Project.					266,567		
Total					447,461		

Examples of Major Assistance by USAID to ATT

Project Title	Project Area	Recipient Institute	Duration		Donor US\$	Objective	Evaluation
			Begin	End			
1. Low Moisture Seed Processing to Protect Germination		DOAE	1985	1986	118,800		
2. Reduction of Fungi Contamination in Mungbean		DOA	1985	1989	62,800		
3. Pathological Measures to Reduce Aflatoxin Contamination of Maize, Sorghum and Peanut		DOA	1985	1989	205,600		
4. Quality Improvement of Fresh Fruit and Vegetable for Export		DOA	1985	1989	375,200		
5. Export Fishery Products Quality Control Improvement		DOF	1985	1989	148,800		
6. Cockle Seed Production		DOF	1985	1987	222,400		
7. Aquaculture Control of Disease in commercial Fish Ponds		DOF	1985	1987	125,600		
8. Seaweed Production and Processing Project		DOF	1986	1987	374,885		
9. Lam Nam Don Integrated Agro-Production and Marketing Program		RID	1986	1987	74,800		

Examples of Major Assistance by USOM

Project Title	Project Recipient		Duration		Donor US\$	Objective	Comments
			Area	Institute			
1.		Department of Agricultural Extension	1966	1972	80,000 (71) 33,000 (72)	To organize farmers into local cooperative type groups to provide training in improved farming methods, use of credit facilities, and producing and marketing services in economically depressed and security sensitive areas Northeast and North Thailand.	
			1968	1971	180,000 (71)	Using small RID water storage tank presently existing or to be constructed in security sensitive areas of the Northeast, provide irrigation water to farmers, through construction of required distribution system, and training in use and management of such water to obtain increased farm production and income.	
3. Feasibility investigations of the Mun and Chi water storage and irrigations project in Northeast Thailand.		RID	1965	1971	94,000 (71)	To produce feasibility grade report on the Nam Mun and Nam Chi project and a reconnaissance grade report on the Nam Yang project. This work is being carried out as a collaboration between the US. Bureau of Reclamation and the RID utilizing the service of private consultants whenever possible.	

Examples of Major Assistance by USOM. (Continued)

Project Title	Project Recipient		Duration		Donor US\$	Objective	Comments
			Area	Institute			
4. Provides assistance to Northeast to the agricultural Research Centre at Tha Phra, Ehon Kaen.	4	Northeast Agricultural Research Centre	1963	1975	980,000 (71)		
					468,000 (72)		
					767,000 (73)		
					668,250 (74)		
					404,000 (75)		
			1966	1971	31,500 (71)	Provision of basic health services to people in remote areas in Northern and Northeast Thailand who are not served by rural health centres because of the isolated location of these villages. U.S. support for this project provides for advisory services, commodities and third country participant training.	

B. DEMOGRAPHIC SURVEY

DEMOGRAPHIC SURVEY

No. 1 of 4 Copies

Prepared for

PPC/CDIE

By



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A Member Of The Survey Research Group

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SEPTEMBER 1987

1/8

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INTRODUCTION

1. This report contains the findings from the Demographic Survey conducted in the target province of Roi-Et in Northeastern Thailand. A total of 105 villages were surveyed in an area consisting of the four following districts (amphur) and the relevant sub-districts (tambol).

Amphur -----	Tambol -----
Ajsamart	Nom, Nong Bua
Panom Prai	Nong Tap Thai, Na Nual
Suwannaphume	Bor Pan Kan, Hin Kong
Kasetwisai	Lao Luang, Muang Bua

2. The Demographic Survey was accomplished through a key informant interview method with the village headman or other key resident of the village. The questionnaire covered basic demographic data as well as quality of life indicators :

- population profile of the village
- livelihood of villagers
- public utilities
- geographical distances
- consumer durables
- media habits
- income and migration

3. Interviewers were recruited from Deemar's pool of trained interviewers who have experience in conducting interviews of this nature. In the field they worked under full time field supervisors who backchecked or personally witnessed a minimum of 15% of all interviews to ensure the highest standards of quality control.
4. All questionnaires were edited and coded by Deemar's Data Processing Department. Tabulations were prepared using Merlin software on Prime hardware.
5. The report is divided into the following sections :
 - Introduction
 - I Management Summary
 - II Computer Tabulations
 - Appendix : English and Thai questionnaires

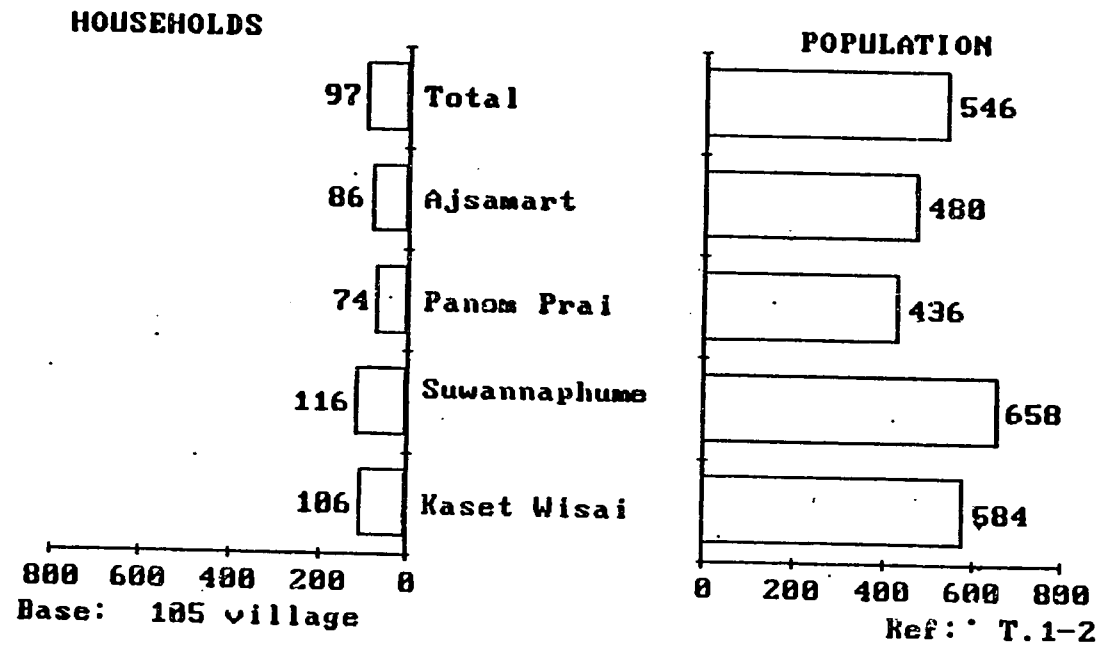
MANAGEMENT SUMMARY

POPULATION

(Chart. 1)

1. Chart 1 shows average population in the 105 villages surveyed. This averaged between 436 to 658 per village with an overall mean of 546 inhabitants and 97 households. Average household size was 5.6 people.
2. Split by sex was exactly 50:50 while children accounted for one-third of the average village population. This ties in with the general population structure of Thailand on two accounts : (1) the high youth segments in the population in general and (2) the low number of children per family or household which is less than 2.0.

CHART 1: AVERAGE VILLAGE POPULATION



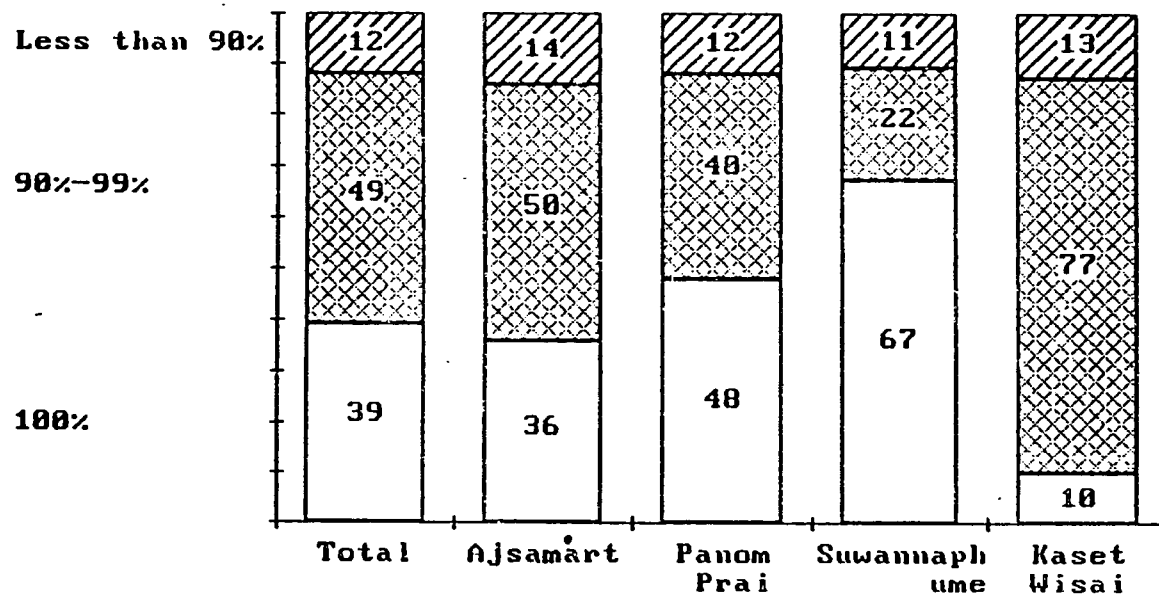
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AGRICULTURE

(Charts 2A-B)

3. Corresponding to the overall pattern for rural Thailand and the Northeast, over 90% of the population of the villages were involved in agriculture with agriculture or farming considered universally to be the main occupation of villagers.
4. Crops grown include primarily glutinous rice (93%), official high yield variety rice (92%) (Note : RD stands for Rice Department of the Ministry of Agriculture.), other high yield varieties of rice (74%), vegetables (46%), local varieties of rice (39%), cassava (32%), beans (31%) and other crops.
5. Of interest is the low incidence of low value commodity crops such as jute (12%) and tobacco (12%) and upcoming incidences of high value crops such as mulberry (15%) used in the raising of silkworms either in the village or for export locally.
6. By far the most important crop on which villagers' livelihoods depend are the different varieties of rice.

CHART 2A: PERCENTAGE OF HOUSEHOLDS INVOLVED IN AGRICULTURE

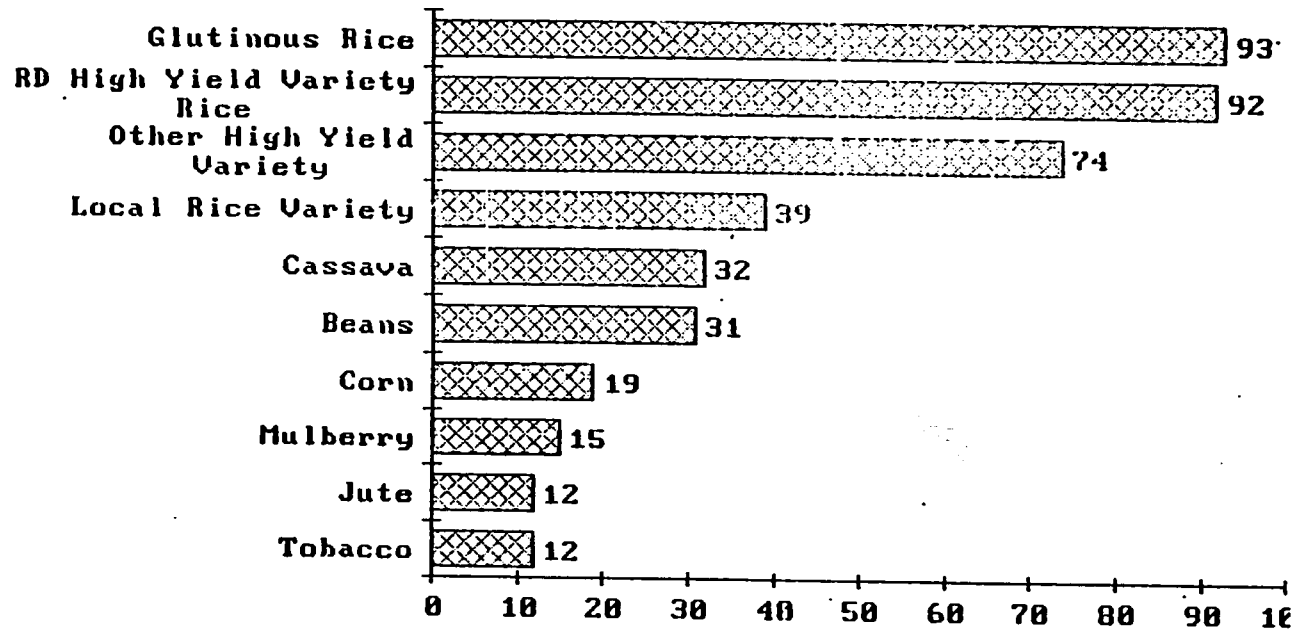


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CHART 2B: CROPS GROWN



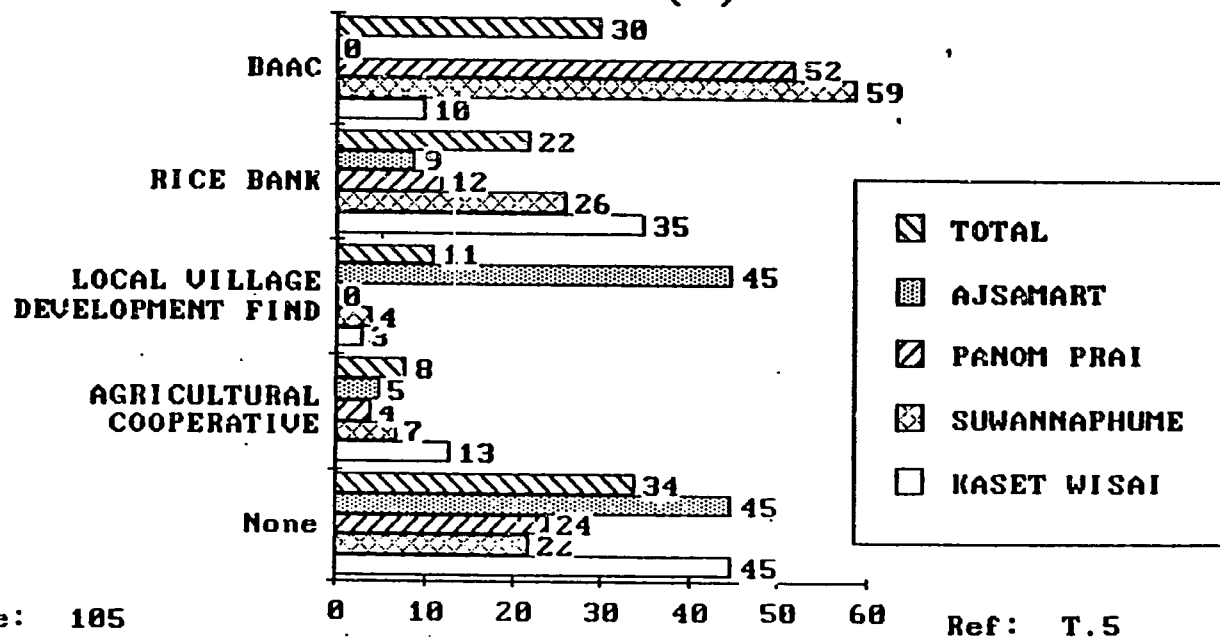
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AGRICULTURAL SERVICES

(Chart 3)

7. Chart 3 shows the incidences of various agricultural services available in the village. The most common of these is a local branch of the Bank for Agriculture and Agricultural Cooperatives, not surprising since these have been established and promoted since the Second Five Year Plan (1967-1971). (See Contextual Study pp.38-41,50-51.) For Roi-Et province in particular, availability of in-kind credit since 1980 has also encouraged expansion of credit.
8. Other agricultural services available include local rice banks, village development funds, and cooperatives.
9. One amphur which deviates from the norm with regard to agricultural services is Ajsamart, none of whose villages surveyed had a local BAAC branch. These were largely substituted by the prevalence of local village development funds.

CHART 3: AVAILABILITY OF AGRICULTURAL SERVICES IN VILLAGE (%)



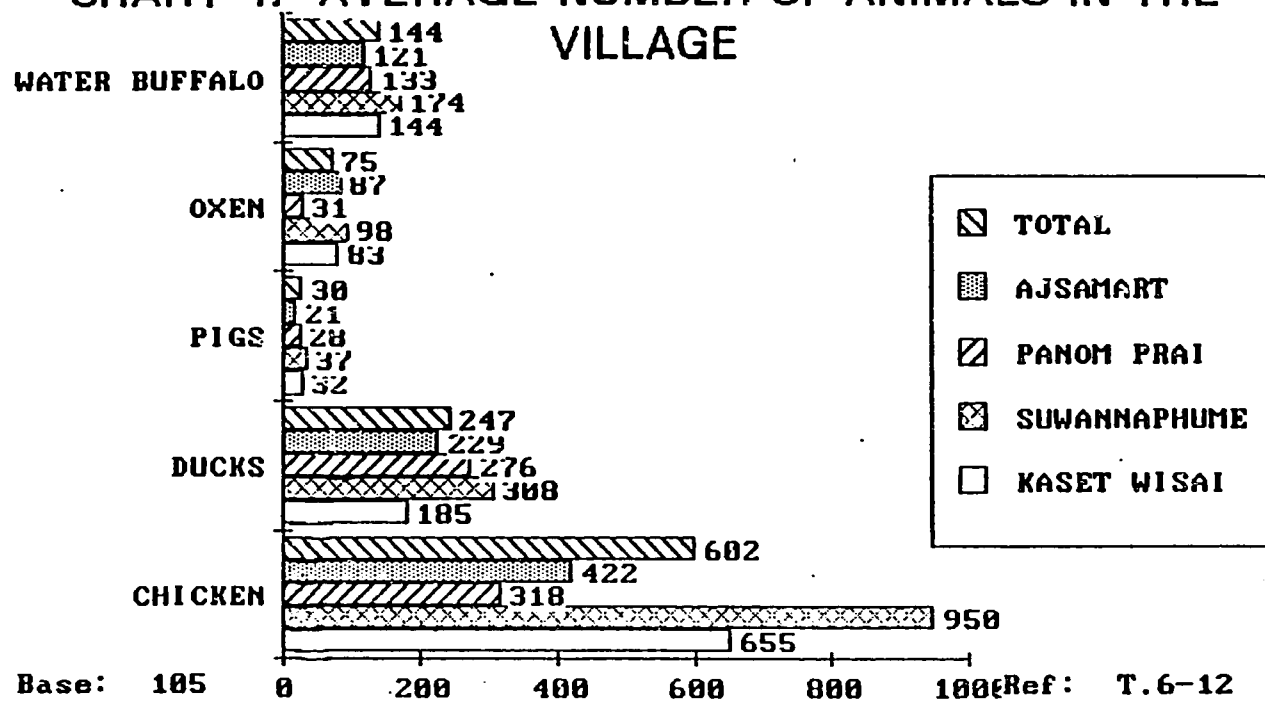
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LIVESTOCK

(Chart 4)

10. Chart 4 shows the average number of various types of domestic livestock in the village. While no comparative figures are available either for the Northeast as a whole or for other more prosperous regions of Thailand, we do feel that an overall average of 1-3 buffaloes per household and 1 ox/cow per household do not constitute immense wealth in livestock. There are almost no pigs, with heavy emphasis on fowl, especially chickens due no doubt to arid conditions not favorable to ducks.

CHART 4: AVERAGE NUMBER OF ANIMALS IN THE VILLAGE



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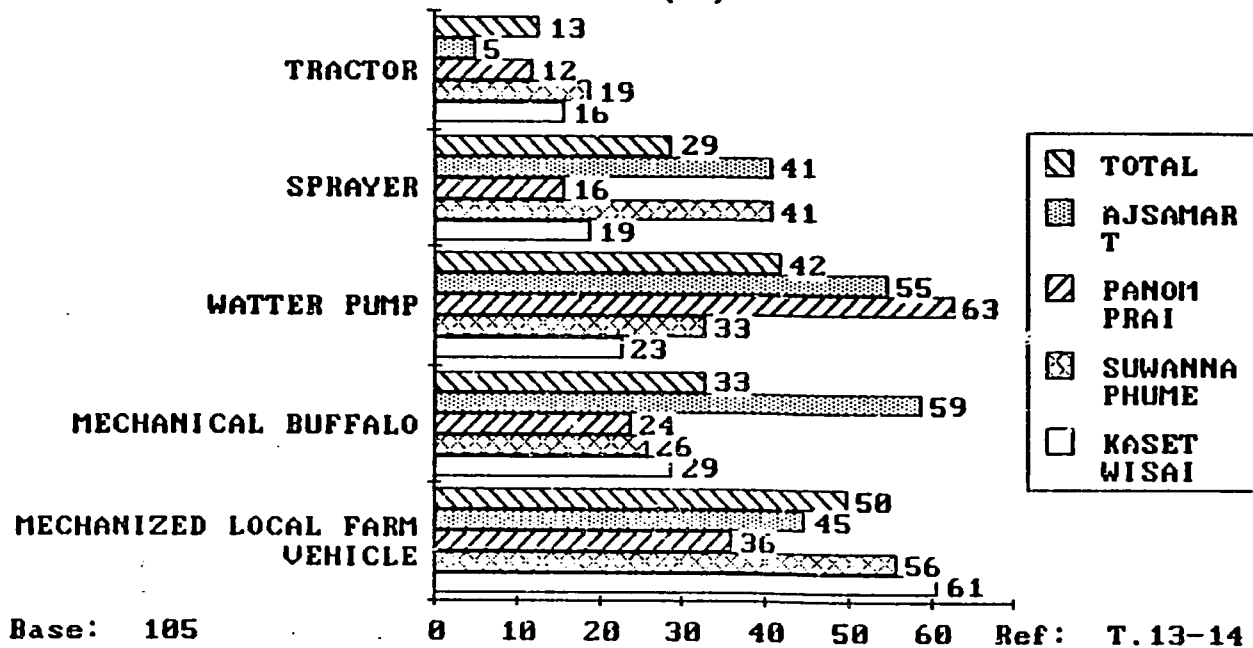
FARM EQUIPMENT

(Chart 5)

11. Incidence of farm equipment is fairly basic. Advanced types of farm equipment such as tractors are not generally found (13% incidence) and it is much more common to find domestically-produced farm vehicles. These include the mechanical buffalo (found in one-third of villages) which is a large diesel engine mounted on 2 paddle wheels to negotiate muddy paddy conditions and is used to pull a plow, and the mechanized local farm vehicle, which is again a diesel engine mounted on a flatbed chassis and is used for transport of people and materials.

13

CHART 5: INCIDENCE OF FARM EQUIPMENT IN THE VILLAGE (%)



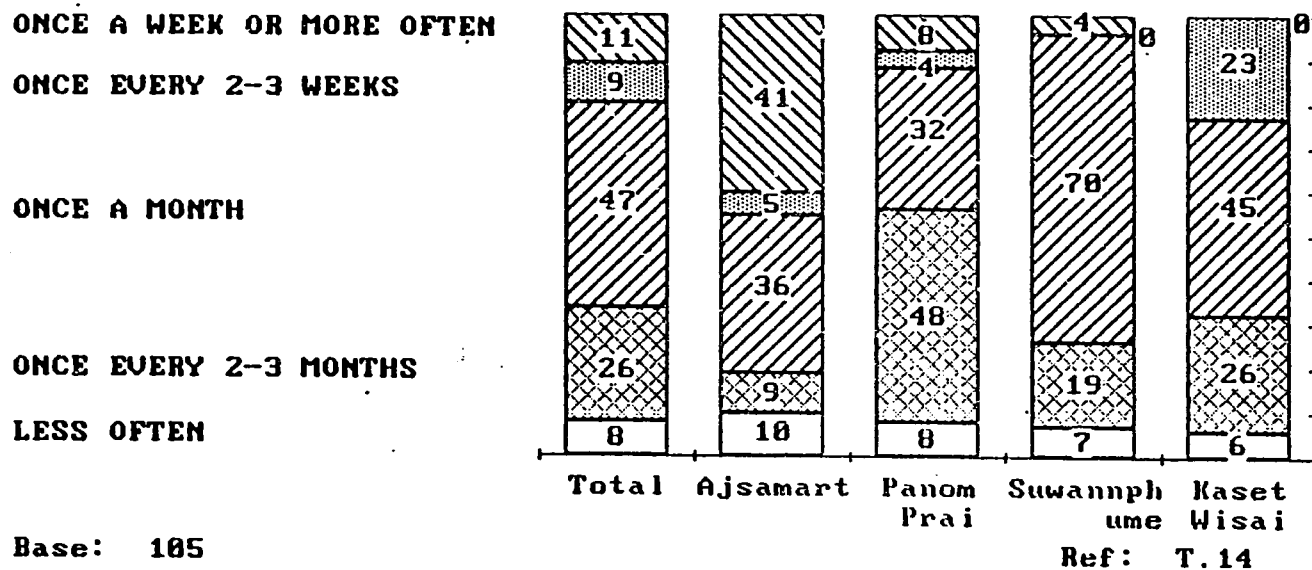
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FREQUENCY OF AGRICULTURAL EXTENSION VISITS

(Chart 6)

12. Generally villages are visited by agricultural extension officers once a month (modal frequency). The exception to this is amphur Ajsamart which has a modal frequency of once a week. This may explain why there is such a high incidence of local village development funds as opposed to local BAAC branches. The former is more likely to be integrated with some program which also involves the agricultural extension officer.

CHART 6: FREQUENCY OF AGRICULTURAL EXTENSION VISITS



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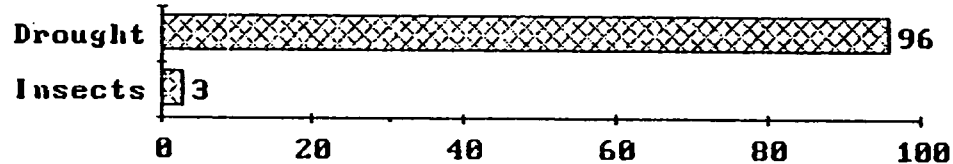
PROBLEMS FACED IN AGRICULTURE

(Chart 7)

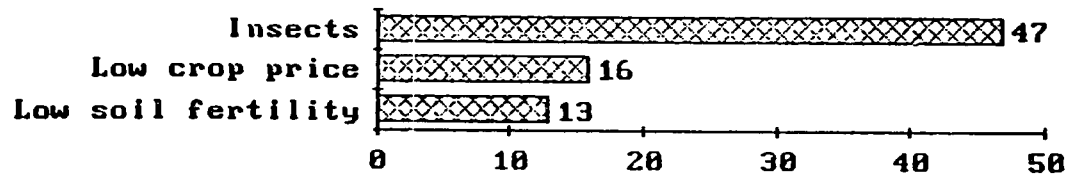
13. Drought and insects are acknowledged as the two main problems facing agriculture in the villages surveyed. By contrast, lack of funds is barely mentioned and commodity prices are relatively unimportant compared with the water supply problem and insects.
14. Implications from this are two-fold. Firstly it is clear that irrigation and water utilization projects would have an immediate impact, while activities targeted towards the output side (marketing) as well as non-tangible inputs (finance) are not as value-added as basic agricultural infrastructure.
15. Secondly, emphasis on assistance by agricultural extension should be focused on the main perceived problem of farmers, that of insects in rice crops. While developing new strains and other activities are important in their own right, provision of cheap, effective insecticides and equipment (or loans to buy such equipment) might prove more effective.

CHART 7: PROBLEMS FACED IN AGRICULTURE

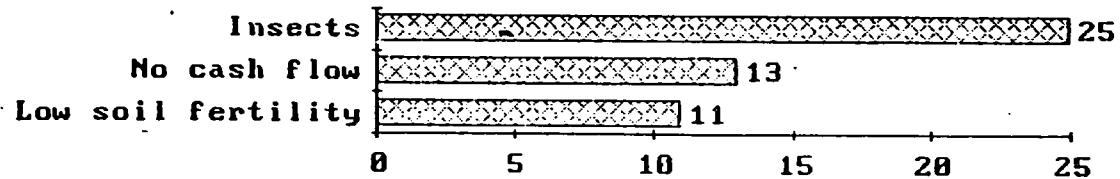
MOST IMPORTANT PROBLEM



2nd MOST IMPORTANT PROBLEM



3rd MOST IMPORTANT PROBLEM



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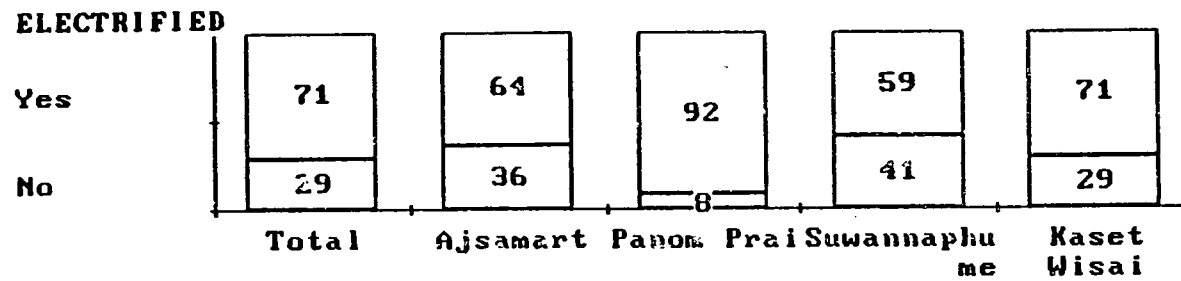
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PUBLIC UTILITIES

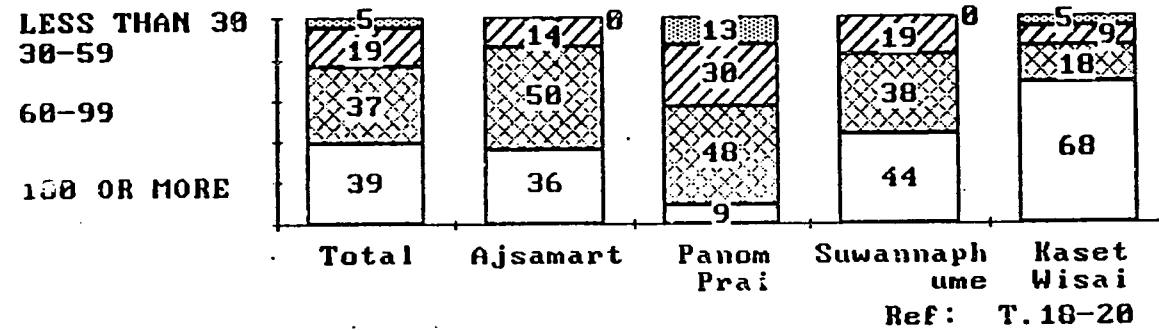
(Charts 8A-B)

16. Approximately two-thirds of villages surveyed are electrified and it appears that in the villages with electricity almost all households are connected to the electricity source.
17. Of the villages that are not electrified by the Electricity Generating Authority of Thailand, all have access to alternative electricity sources within the village (diesel generators).
18. Water supply for domestic as opposed to agricultural use is from a pond or well with a further 50% dependent on rainwater as well. Irrigation for agriculture is totally dependent on rainfall. The water shortage problem extends to domestic as well as agricultural use.
19. The number of water storage jars (less than one per household on average) is very low and this type of development project would seem to be of a high priority.

CHART 8A: ELECTRIFICATION



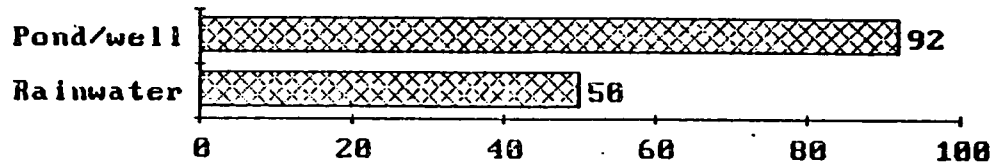
NUMBER OF HOUSEHOLDS HAVING ELECTRICITY



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CHART 8B: WATER SUPPLY

MAIN WATER SUPPLY



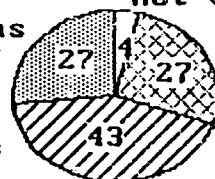
SERIOUSNESS OF WATER PROBLEM

Very serious

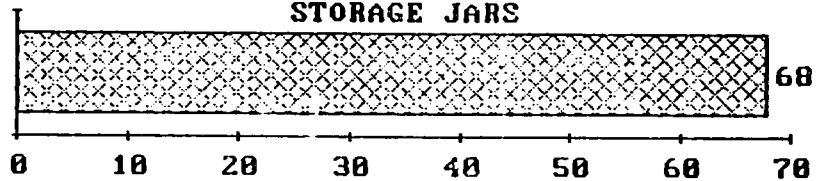
Not very serious

Somewhat serious

Serious



AVERAGE NUMBER OF HOUSEHOLDS WITH WATER STORAGE JARS



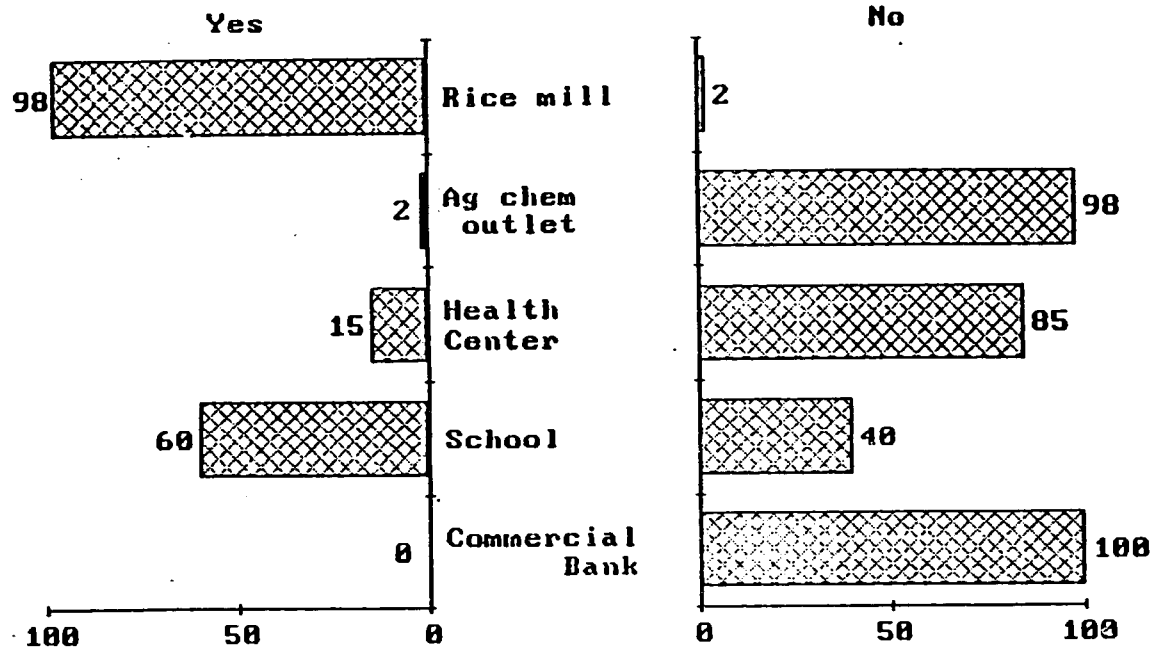
SERVICES AVAILABLE IN VILLAGE

(Chart 9)

20. Of various services, the most commonly available in the village is the rice mill (98% of all villages), followed by a local school (60%). The latter finding is in line with the trend in Government expenditure on education. (See Contextual Study pp.51-53.)
21. Health centers (15%) should also be exhibiting positive trends.

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CHART 9: AVAILABILITY OF SERVICES IN VILLAGE



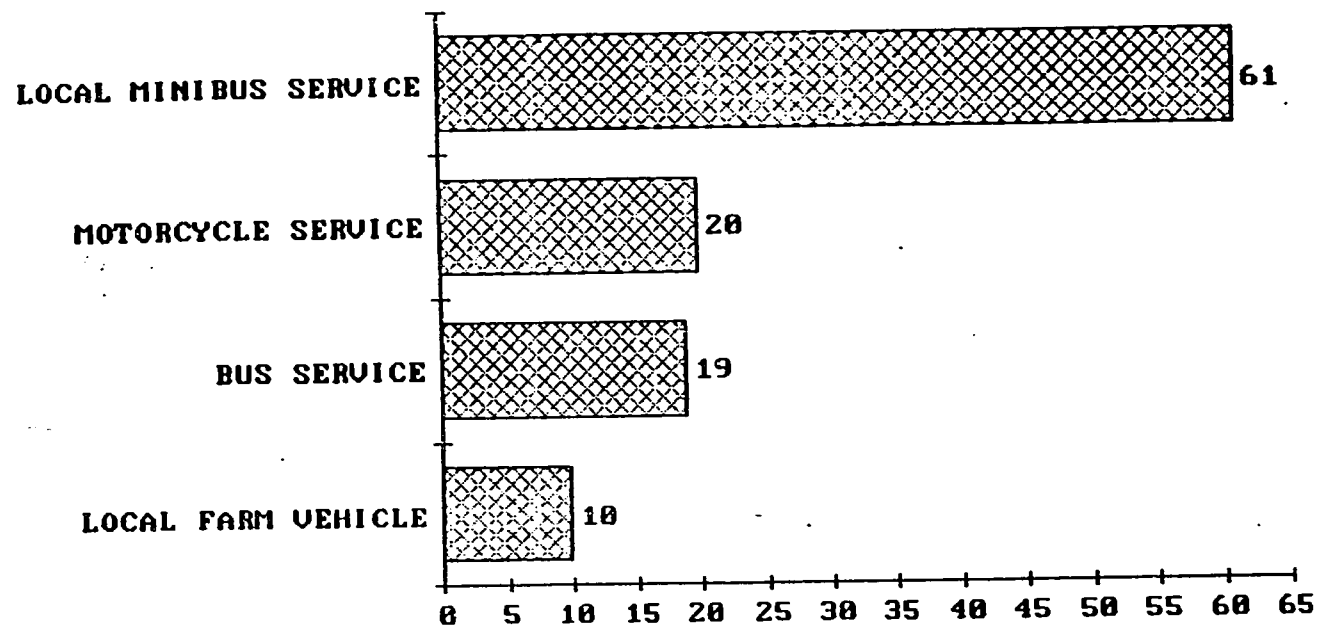
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TRANSPORTATION

(Char 10)

- 22. Transportation facilities can be considered as adequate, with 61% of villages having a minibus service. A further 20% have a motorcycle service.**

CHART 10: FORM OF TRANSPORTATION AVAILABLE



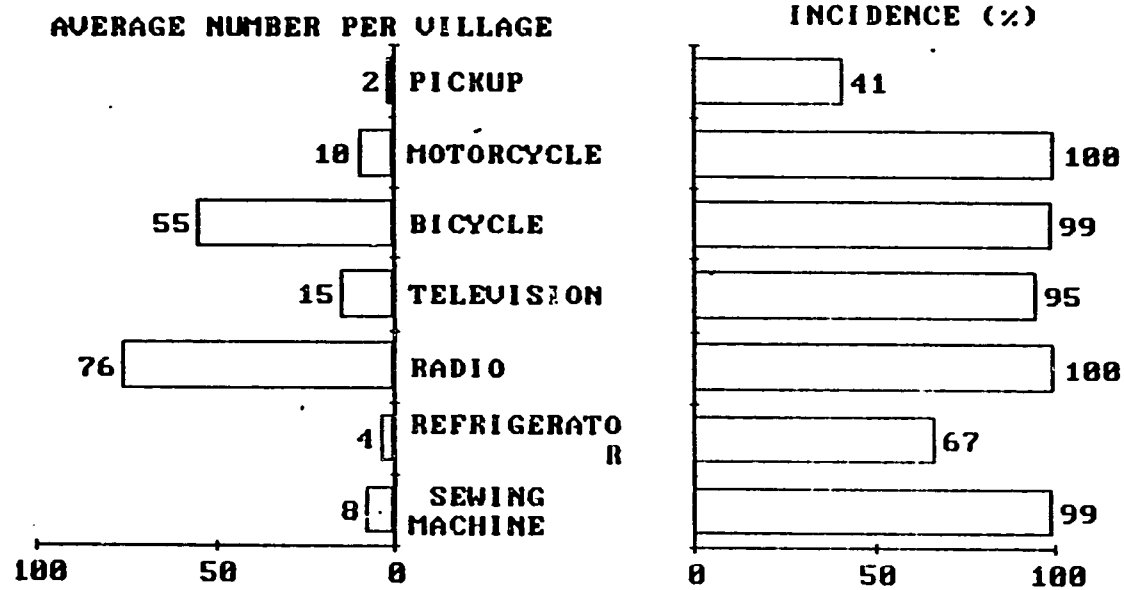
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CONSUMER DURABLES

(Chart 11)

23. In contrast to the ownership of agricultural equipment and farm animals, the incidence of ownership of various consumer durables is quite substantial. Motorcycles, radios, television sets, bicycles, and sewing machines are very common indeed.

CHART 11: CONSUMER DURABLES



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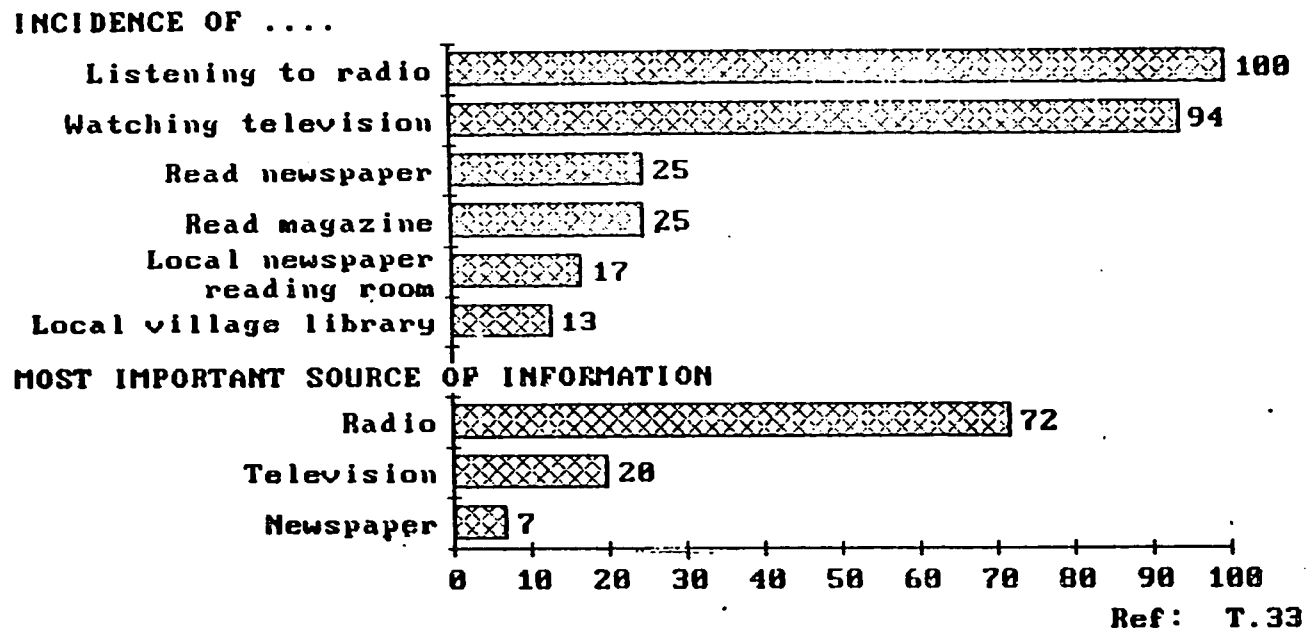
MEDIA HABITS

(Chart 12)

24. Villagers have extensive media habits with radio and television being the most consumed media. Radio is by far the most trusted source of information about the outside world, while we surmise that television is more a source of entertainment.

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CHART 12: MEDIA HABITS



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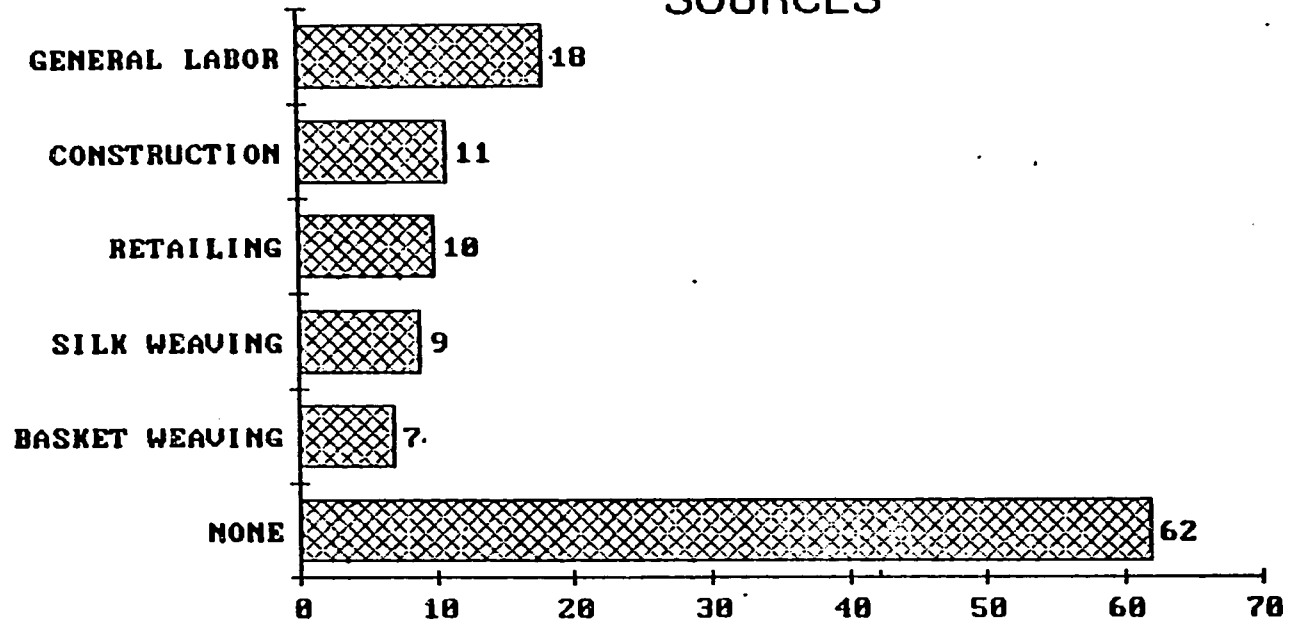
ALTERNATIVE INCOME SOURCES

(Chart 13)

25. If we exclude migration, alternative income sources for villages are limited, with only about one-third of the village population engaging in alternative income-generating activities. These are primarily skilled and unskilled labor.

140

CHART 13: ALTERNATIVE INCOME SOURCES



Ref: T.34

151

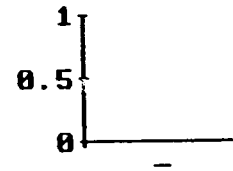
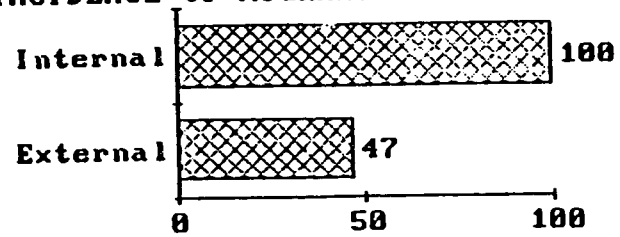
MIGRATION

(Chart 14)

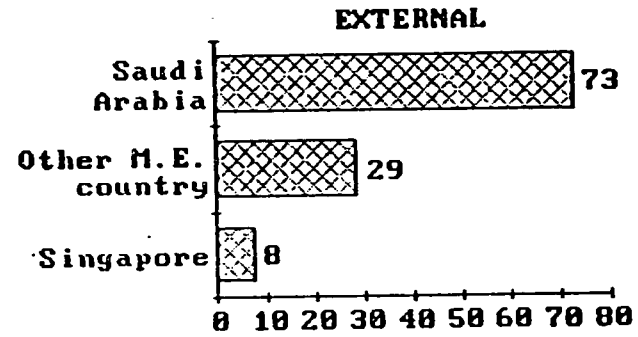
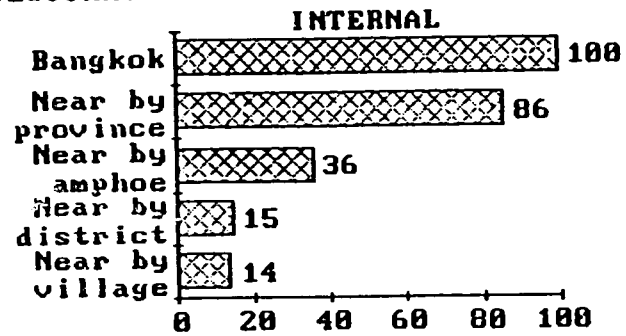
26. Migration is widespread with all villages having internal migrants. Internal migration is mostly to Bangkok and for a duration of several months at a time.
27. External migration in the form of labor to the Middle East is also common with approximately half of villages having some villagers (usually only 1-2) who had worked or were currently working abroad. (See Contextual Study pp.35-38.)

CHART 14: MIGRATION

INCIDENCE OF MIGRANTS



DESTINATION



Ref: T.35-36

Table 1
POPULATION OF THE VILLAGE
Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- HART	PANOM PRAI	SUWAN NA PHUME	KASET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
TOTAL POPULATION	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
LESS THAN 300	22	7	5	3	7	2	5	1	4	2	1	6	1
300 - 499	21X 37	32X 8	20X 14	11X 9	23X 6	17X 6	50X 2	8X 8	33X 6	13X 7	9X 2	30X 4	9X 2
500 - 699	35X 22	36X 4	56X 5	33X 7	19X 6	50X 2	20X 2	62X 3	50X 2	44X 3	18X 4	20X 4	18X 2
700 - 899	21X 11	18X 1	20X	24X	19X	17X	20X	23X	17X	19X	36X	20X	18X
900+	10X 13	5X 2		4X 7	29X 3	8X 1				1 6X		3 15X	6 55X
AVERAGE	12X 946	9X 480	4X 436	26X 658	10X 584	8X 531	10X 418	8X 531		3 598	4 745	3 555	3 638
TOTAL MEN													
LESS THAN 200	39	9	13	6	11	3	6	5	8	5	1	8	3
200 - 299	37X 31	41X 9	52X 10	22X 8	35X 4	25X 6	60X 3	38X 6	67X 4	31X 5	9X 3	40X 4	3 27X
300 - 399	30X 14	41X 2	40X 1	30X 5	13X 6	50X 2	30X	46X 1	33X	31X	27X	20X	3
400 - 499	13X 12	9X 1	4X	19X 3	19X 8	17X		8X		13X	27X	15X	27X
500+	11X 9	5X 1		11X 5	26X 2		10X			2 13X	1 9X	3 15X	5 45X
AVERAGE	9X 273	5X 234	4X 214	19X 332	6X 296	8X 257	10X 207	8X 258		2 13X	3 27X	2 10X	2 330
TOTAL WOMEN													
LESS THAN 200	39	9	12	7	11	3	6	4	8	5	2	8	3
200 - 299	37X 32	41X 7	48X 10	26X 9	35X 6	25X 5	60X 2	31X 6	67X 4	31X 6	2 3	40X 5	3 27X
300 - 399	30X 15	32X 4	40X 2	33X 3	19X 6	42X 3	20X 1	46X 2	33X	38X	27X	25X	9X
400 - 499	14X 10	18X 1	8X	11X 4	19X 5	25X	10X	15X		1 6X	2 18X	2 10X	4 36X
500+	10X 9	5X 1		15X 4	16X 3		10X			2 13X	2 18X	2 10X	3 27X
AVERAGE	9X 273	5X 246	4X 221	15X 326	10X 289	8X 274	10X 211	8X 273		2 13X	3 18X	2 15X	2 307

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Table 2
 NUMBER OF ADULTS, CHILDREN AND HOUSEHOLD IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- MART	PANOM PRAI	SUMAN NA PHUME	KASET WISAI	NOM	NONG BUA	NONG TAP THAI	NA MUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
TOTAL ADULTS	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
LESS THAN 200	27	7	7	4	9	2	5	2	5	2	2	7	2
200 - 299	26X	32X	28X	15X	29X	17X	30X	15X	42X	13X	18X	35X	18X
300 - 399	21	2	9	6	4	2	5	4	4	4	2	3	1
400 - 499	20X	9X	36X	22X	13X	17X		38X	33X	25X	18X	15X	9X
500+	23	8	6	5	4	4	4	3	3	4	1	4	
AVERAGE	22X	36X	24X	19X	13X	33X	40X	23X	25X	25X	9X	20X	
TOTAL CHILDREN	15	2	2	5	6	2	2	2	3	3	2		6
LESS THAN 100	14X	9X	8X	19X	19X	17X		15X	19X	18X	18X		55X
100 - 199	19	3	1	7	8	2	1	1	3	4	4	6	2
200 - 299	18X	14X	4X	26X	26X	17X	10X	8X	19X	19X	36X	30X	18X
300+	18X	5X		33X	26X	8X			25X	45X	20X	36X	18X
AVERAGE	363	346	307	427	366	73	289	376	232	397	472	348	399
TOTAL HOUSEHOLDS													
LESS THAN 40	30	9	10	4	7	3	6	3	7	3	1	6	1
40 - 69	29X	41X	40X	15X	23X	25X	60X	23X	58X	19X	9X	30X	9X
70 - 99	34	8	11	8	7	7	1	7	4	7	1	4	3
100+	32X	36X	44X	30X	23X	58X	10X	54X	33X	44X	9X	20X	27X
AVERAGE	23	4	4	6	9	1	3	3	1	2	4	6	3
TOTAL ADULTS	22X	18X	14X	22X	29X	8X	30X	23X	8X	13X	36X	30X	27X
CHILDREN	18	1		9	8	1			4	4	5	4	4
HOUSEHOLDS	17X	5X		33X	26X	8X			25X	45X	20X	36X	18X
AVERAGE	183	134	129	231	218	138	128	155	101	201	274	207	238
LESS THAN 40	10	2	3	1	4	1	1		3		1	3	1
40 - 69	10X	9X	12X	4X	13X	8X	10X		25X		9X	15X	9X
70 - 99	31	6	11	6	6	2	6	5	6	6		5	1
100+	30X	36X	44X	22X	19X	17X	60X	38X	50X	38X		25X	9X
AVERAGE	21	5	6	6	4	5		4	2	4	2	3	1
TOTAL ADULTS	20X	23X	24X	22X	13X	42X		31X	17X	25X	18X	15X	9X
CHILDREN	43	7	5	14	17	4	3	4	1	6	8	9	8
HOUSEHOLDS	41X	32X	20X	32X	55X	33X	30X	31X	8X	38X	73X	45X	73X
AVERAGE	97	86	74	116	106	97	73	88	59	105	132	98	120

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Table 3
 QUALITY OF LIFE/DEMOGRAPHIC SURVEY
 MAIN OCCUPATION AND AVERAGE PERCENTAGE OF HOUSEHOLDS INVOLVED AGRICULTURE/FARMING
 Base: ALL RESPONDENTS

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- MART	PANDH PRAI	SUMAN NA PHUMÉ	KASET WIBAI	NOH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
MAIN OCCUPATION													

AGRICULTURE/FARMING	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
PERCENTAGE INVOLVED AGRICULTURE/FARMING													

LESS THAN 90	13 12%	3 14%	3 12%	3 11%	4 13%	2 17%	1 10%	2 15%	1 8%	3 19%		3 15%	1 9%
90 - 99	51 49%	11 50%	10 40%	6 22%	24 77%	6 50%	5 50%	4 31%	6 50%	3 19%	3 27%	15 75%	9 82%
100	41 39%	8 36%	12 48%	18 67%	3 10%	4 33%	4 40%	7 54%	5 42%	10 63%	8 73%	2 10%	1 9%

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Table 4
 QUALITY OF LIFE/DEMOGRAPHIC SURVEY
 CROPS GROWN AND MOST IMPORTANT CROP GROWN IN THE VILLAGE
 Base: ALL RESPONDENTS

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- MART	PANOH PRAI	SUMAN NA PHUME	KASET WISAI	NOH	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
CROPS GROWN	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GLUTINIOUS RICE	98	18	23	27	30	11	7	12	11	16	11	19	11
HIGH YIELD VARIETY RICE	93%	82%	92%	100%	97%	92%	70%	92%	92%	100%	100%	95%	100%
OTHER HIGH YIELD VARIETY RICE	97	21	22	25	29	11	10	12	10	16	9	19	10
VEGETABLES	78	16	21	24	15	92%	100%	92%	83%	100%	82%	95%	91%
LOCAL RICE VARIETY	74%	73%	84%	96%	48%	9	7	9	12	16	10	4	11
CASSAVA	48	15	10	13	10	75%	70%	69%	100%	100%	91%	20%	100%
BEANS	44%	68%	40%	48%	32%	10	5	6	4	8	5	8	2
CORN	41	16	4	11	10	83%	50%	46%	33%	50%	45%	40%	18%
MULBERRY	39%	73%	16%	41%	32%	9	7	3	1	6	5	5	5
JUTE	34	13	10	2	9	75%	70%	23%	8%	38%	45%	25%	45%
TJB/CCO	32%	59%	40%	7%	29%	9	4	7	3	2		7	2
WATERMELON	33	13	10	5	5	75%	60%	54%	25%	13%		35%	18%
OTHERS	31%	59%	40%	19%	16%	9	4	9	1	3	2	5	
MOST IMPORTANT CROP GROWN	20	6	7	3	4	75%	40%	69%	8%	19%	18%	25%	
OTHER HIGH YIELD VARIETY RICE	19%	27%	28%	11%	13%	5	1	7		2	1	4	
GLUTINIOUS RICE	14		5	11		42%	10%	54%		13%	9%	20%	
HIGH YIELD VARIETY RICE	13	3	2		8	3		38%	2	44%	36%		
VEGETABLES	12%	14%	8%		26%	25%			17%			6	2
LOCAL RICE VARIETY	13	11	1		1	1	10	1				30%	18%
CASSAVA	12%	50%	4%		3%	8%	100%	8%				1	
BEANS	7	4	2	1			4	2				5%	
CORN	7%	18%	8%	4%			40%	15%			1		
MULBERRY	2	1			1	1					9%		
JUTE	2%	5%			3%	8%						1	
TJB/CCO												5%	
WATERMELON													
OTHERS													
MOST IMPORTANT CROP GROWN													
OTHER HIGH YIELD VARIETY RICE	55	5	16	25	9	5		7	9	16	9		9
GLUTINIOUS RICE	52%	23%	64%	93%	29%	42%		54%	75%	100%	82%		82%
HIGH YIELD VARIETY RICE	30	8	6		16	4	4	4	2			14	2
VEGETABLES	29%	36%	24%		32%	33%	40%	31%	17%			70%	18%
LOCAL RICE VARIETY	20	9	3	2	6	3	6	2	1		2	6	
CASSAVA	19%	41%	12%	7%	19%	25%	60%	15%	8%		18%	30%	

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Table 5
 AVAILABILITY OF ... IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A N P H U R				T A M B O L							
		AJBA- MART	PANOM PRAI	SUWAN NA PHUME	KASET WISAI	NOH	NONG BUA	NONG TAP THAI	NA NUAL	BCR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
<u>AVAILABILITY OF ... IN THE VILLAGE</u>													
BANK FOR AGRICULTURE AND AGRICULTURAL COOPERATIVES	32 30%		13 52%	16 59%	3 10%			6 46%	7 58%	11 69%	5 45%		3 27%
RICE BANK	23 22%	2 9%	3 12%	7 26%	11 35%	1 8%	1 10%	2 15%	1 8%	3 19%	4 36%	6 30%	5 45%
LOCAL VILLAGE FUND FOR DEVELOPMENT	12 11%	10 45%		1 4%	1 3%	6 50%	4 40%				1 9%	1 5%	
AGRICULTURAL COOPERATIVE	8 8%	1 5%	1 4%	2 7%	4 13%		1 10%		1 8%		2 18%	1 5%	3 27%
OTHERS	8 8%		4 16%	2 7%	2 6%			3 23%	1 8%	1 6%	1 9%	1 5%	1 9%
NONE	36 34%	10 45%	6 24%	6 22%	14 45%	6 50%	4 40%	4 31%	2 17%	3 19%	3 27%	12 60%	2 18%

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Table 7
 NUMBER OF OXEN/COWS RAISED IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A N P H U R				T A M B O L							
		AJSA- MART	PANCH PRAI	SUWAN NA PHUME	KABET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
NUMBER OF OXEN/COWS	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
NONE	1			1						1			
LESS THAN 20	1X			4X						6X			
20 - 39	23	3	15	2	3	3		7	8	2		3	
	22X	14X	60X	7X	10X	25X		34X	67X	13X		15X	
40 - 59	21	5	3	6	7	0	1	2	1	6		6	1
	20X	23X	12X	22X	23X	33X	10X	15X	8X	38X		30X	9X
60 - 79	14	1	2	7	4	1		2	2	3	4	3	1
	13X	5X	8X	26X	13X	8X		17X	19X	36X		15X	9X
80 - 99	13	6	3	1	3	2	4	2	1	1		3	
	12X	27X	12X	4X	10X	17X	40X	15X	8X	6X		15X	
100 - 149	6	1			5		1					1	4
	6X	5X			16X		10X					5X	36X
150+	12	2	1	3	6	1	1	1	2	1		1	5
	11X	9X	4X	11X	19X	8X	10X	8X	13X	9X		5X	45X
AVERAGE	15	4	1	7	3	1	3	1	1	6		3	
	14X	18X	4X	26X	10X	8X	30X	8X	6X	33X		15X	
	75	87	31	98	83	60	118	38	23	55	160	77	92

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QUALITY OF LIFE/DEMOGRAPHIC SURVEY

Table 8
NUMBER OF PIGS RAISED IN THE VILLAGE
Base: ALL RESPONDENTS

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- HART	PANOM PRAI	SUMAN NA PHUME	KASET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HTN KONG	LAD LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
NUMBER OF PIGS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
NONE	4	2	3		1	1	1	3				1	
LESS THAN 20	4%	9%	12%		3%	10%	4	25%				5%	
20 - 39	39	7	9	11	12	3	4	5	4	9	2	9	3
	37%	32%	36%	41%	39%	25%	40%	38%	33%	56%	18%	45%	27%
40 - 59	39	11	9	8	10	8	3	5	4	4	4	7	3
	36%	50%	36%	30%	32%	67%	30%	38%	33%	25%	36%	35%	27%
60 - 79	7	2	1	1	3			1			1	2	1
	7%	9%	4%	4%	10%			20%	8%		9%	10%	9%
80 - 99	5			2	3								3
	5%			7%	10%								27%
100 - 149	4		1	3							18%		
	4%		4%	11%				1	1		2		
150+	5		2	2	1			8%	6%	18%			
	5%		8%	7%	3%			2	2				1
150+	1				1			15%	13%				9%
	1%				3%								
AVERAGE	30	21	28	37	32	19	24	35	21	34	42	27	42

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Table 9
 NUMBER OF DUCKS RAISED IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- HART	PANOH PRAI	SUMAN NA PHUME	KASET WISAI	NOM	NONO BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONO	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
NUMBER OF DUCKS	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
NONE	1				1								
LESS THAN 100	31	3	6	6	16	1	2		6	5		1	5X
100 - 199	24	14X	24X	22X	32X	8X	20X		50X	31X	9X	13	3
200 - 299	19	9	6	5	4	6	3	5	1	4	1	2	27X
300 - 399	10	41X	24X	19X	13X	50X	30X	38X	8X	25X	9X	10X	18X
400 - 599	10	5	4	7	3	1	4	1	3	2	5	2	1
600+	10	23X	16X	26X	10X	8X	40X	8X	23X	13X	43X	10X	9X
AVERAGE	247	2	3	3	2	1	1	1	2	2	1	1	1
		9X	12X	11X	6X	8X	10X	8X	17X	13X	9X	5X	9X
		1	3	3	3	1		3		1	2	1	2
		2	3	3	2	8X		23X		6X	18X	5X	18X
		9X	12X	11X	6X	2		3		2	1		2
		229	276	308	185	17X		23X		13X	9X		18X
		274	174	388	154				280	349	118	308	

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Table 10
 NUMBER OF CHICKENS RAISED IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- MART	PANOM PRAI	SUWAN NA PHUME	KASET WISAI	NOM	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total													
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
NUMBER OF CHICKENS	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
LESS THAN 100	6	1	4	1		1		2	2	1			
100 - 199	6X 17	5X 4	16X 5	4X 4	4	8X 4		15X 1	17X 4	6X 4			
200 - 299	16X 16	16X 7	20X 4	15X 2	13X 3	33X 2		8X 2	33X 2	25X 2		10X 3	2
300 - 399	15X 20	32X 3	16X 5	7X 8	10X 4	17X 2	5 1	15X 3	17X 2	13X 3		15X 3	18X 1
400 - 599	19X 17	14X 4	20X 3	30X 4	13X 6	17X 1	10X 3	23X 1	17X 2	19X 2	5 2	15X 6	9X 6
600+	16X 29	18X 3	12X 4	15X 8	19X 14	8X 2	30X 1	8X 4	17X 4	13X 4	18X 4	30X 6	6 8
AVERAGE	28X 602	14X 422	16X 318	30X 950	45X 655	17X 414	10X 430	31X 421		25X 1156	36X 650	30X 570	73X 811

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Table 11
 NUMBER OF GOOSEES RAISED IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R					T A M B O L						
		AJBA- MART	PANOH PRAI	BUMAN NA PHUME	KASET WISAI		NONH	NONG BUA	NONG TAP THAI	NA MUAL	BOR PAN KAN	HIN KONG	LAD LUANG
Total	103	22	25	27	31	12	10	13	12	16	11	20	11
NUMBER OF GOOSEES	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
NONE	72	13	14	21	24	6	7	8	6	14	7	15	9
1 - 5	69%	39%	36%	78%	77%	50%	70%	62%	30%	88%	64%	75%	82%
	17	4	4	3	6	3	1	2	2	1	2	4	2
6 - 10	16%	18%	16%	11%	19%	25%	10%	15%	17%	6%	18%	20%	18%
	11	4	6	1	2	2	2	2	4	1	1	1	1
MORE THAN 10	10%	18%	24%	4%	2	17%	20%	15%	33%	6%			
	5	1	1	2	1	1		1			2	1	
	5%	5%	4%	7%	3%	8%		8%			18%	5%	
AVERAGE	2	3	3	2	1	5	2	3	3	1	4	1	1

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Table 12
 NUMBER OF TURKEYS RAISED IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	AREA OF THE SURVEY											
		AMPHUR				TAMBOL							
		AJBA- HART	PANOM PRAI	SUMAN NA PHUME	KASET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
NUMBER OF TURKEYS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
NONE	94	15	25	27	27	7	8	13	12	16	11	17	10
1 - 3	90%	48%	100%	100%	87%	58%	80%	100%	100%	100%	100%	85%	91%
4 - 10	5%	3			2	3						1	1
MORE THAN 10	3%	14%			6%	25%						5%	9%
AVERAGE	1	2			1	2						1	5%
		9%			3%	17%						5%	
		4			2	6	2					3	

Table 13
 FARMING EQUIPMENT AVAILABLE IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		A-JSA- MART	PANOM PRAI	SUWAN NA PHUME	KABET WIGAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	SDR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
EQUIPMENT AVAILABLE													
TRACTOR													
1	8 8%	1 5%	2 8%	4 15%	1 3%	1 8%		2 17%	1 6%	3 27%			1 9%
2	3 3%			1 4%	2 6%					1 9%			2 18%
3	2 2%				2 6%							1 5%	1 9%
5	1 1%		1 4%					1 8%					
NONE	91 87%	21 95%	22 88%	22 81%	26 84%	11 92%	10 100%	13 100%	9 75%	15 94%	7 64%	19 95%	7 64%
SPRAYER													
1 - 3	10 10%	1 5%	1 4%	3 11%	5 16%	1 8%		1 8%	2 13%	1 9%		4 20%	1 9%
4 - 6	1 1%			1 4%					1 6%				
10 - 19	8 8%	3 14%		4 15%	1 3%	3 25%			3 19%	1 9%			1 9%
20 OR MORE	11 10%	5 23%	3 12%	3 11%		1 8%	4 40%	3 23%	3 19%				
NONE	75 71%	13 59%	21 84%	16 59%	25 81%	7 58%	6 60%	10 77%	11 92%	7 44%	9 82%	16 80%	9 82%
TILLER													
NONE													
105 100%													
WATER PUMP													
1	20 19%	3 14%	5 20%	6 22%	6 19%	1 8%	2 20%	2 15%	3 25%	3 19%	3 27%	3 15%	3 27%
2	8 8%	2 9%	3 12%	2 7%	1 3%	1 8%	1 10%	2 15%	1 6%	1 9%			1 9%
3	5 5%	1 5%	3 12%	1 4%				3 23%	1 6%				
4	1 1%	1 5%											
5	2 2%		2 8%										
6 OR MORE	8 8%	5 23%	3 12%			5 42%		2 15%	1 8%				
NONE	61 58%	10 45%	9 36%	18 67%	24 77%	5 42%	5 50%	2 15%	7 58%	11 69%	7 64%	17 85%	7 64%

Table 13 (continuation)
 FARMING EQUIPMENT AVAILABLE IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- HART	PANOM PRAI	SUMAN NA PHUME	KABET WIBAI	NOM	NONO BUA	NONO TAP THAI	NA MUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
MECHANICAL BUFFALO	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1	17	5	5	3	4	2	3	1	4	3		1	3
	16%	23%	20%	11%	13%	17%	30%	8%	33%	19%		5%	27%
2	9	5	1	2	1	5			1	1	1		1
	9%	23%	4%	7%	3%	42%			8%	6%	9%		9%
3 - 5	3	2		1		2							
	3%	9%		4%		17%					1%		
6 OR MORE	6	1		1	4	1					2		4
	6%	5%		4%	13%	8%					9%		36%
NONE	70	9	19	20	22	2	7	12	7	12	9	19	3
	67%	41%	76%	74%	71%	17%	70%	92%	58%	75%	73%	95%	27%
LOCAL VEHICLE USED ON FARM													
1	24	5	4	7	8	4	1		4	4	3	5	3
	23%	23%	16%	26%	26%	33%	10%		33%	25%	27%	25%	27%
2	12	2	2	4	4	2		1	1	2	2	2	2
	11%	9%	8%	15%	13%	17%		8%	8%	13%	18%	10%	18%
3	6	1		1	4	1					1		4
	6%	5%		4%	13%	8%					9%		36%
4	7	2	2	2	1	2		1	1		2	1	
	7%	9%	8%	7%	3%	17%		8%	8%		18%	5%	
5	3	1	4%	2	6%				1		1	1	1
	3%		4%		6%				8%		5%	5%	9%
8	1		1								1		
	1%		4%								9%		
NONE	82	12	16	12	12	3	9	11	5	10	9	11	1
	50%	55%	64%	44%	39%	25%	90%	85%	42%	63%	18%	55%	9%
PORTABLE DIESEL ENGINE ON 2 WHEELS													
1	2	1			1		1						1
	2%	5%			3%		10%						9%
NONE	103	21	25	27	30	12	9	13	12	16	11	20	10
	98%	95%	100%	100%	97%	100%	90%	100%	100%	100%	100%	100%	91%
TRANSPLANTING MACHINE													
1	1	1				1							
	1%	5%				8%							
NONE	104	21	25	27	31	11	10	13	12	16	11	20	11
	99%	95%	100%	100%	100%	92%	100%	100%	100%	100%	100%	100%	100%

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Table 13
MAIN SOURCE OF IRRIGATION FOR CROPS
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- HART	PANOM PRAI	SUWAN NA PHUME	KASET WIBAI	NOM	NONG BUA	NONG TAP THAI	NA MUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
MAIN SOURCE													
RAINFALL	89 85%	14 64%	20 80%	24 89%	31 100%	5 42%	9 90%	10 77%	10 83%	13 81%	11 100%	20 100%	11 100%
STREAM/RIVER	7 7%	5 23%	1 4%	1 4%		3 42%		1 8%		1 6%			
POND/WELL	7 7%	3 14%	2 8%	2 7%		2 17%	1 10%	1 8%	1 8%	2 13%			
OTHERS	2 2%		2 8%					1 8%	1 8%				

Table 17
 DISTANCE OF THE NEAREST RICE MILL AND AGRO-CHEMICAL OUTLET
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJRA- MART	PANON PRAI	SUWAN NA PHUM	KASET WISAI	NON	NONO SUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG SUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
<u>DISTANCE OF THE NEAREST RICE MILL</u>													
IN THE VILLAGE	103 98%	21 95%	25 100%	24 96%	31 100%	12 100%	9 90%	13 100%	12 100%	15 94%	11 100%	20 100%	11 100%
1 KM.	2 2%	1 5%		1 4%			1 10%			1 6%			
<u>DISTANCE OF AGRO-CHEMICAL OUTLET (KMS.)</u>													
IN THE VILLAGE	2 2%	2 9%				2 17%							
1 - 3	11 10%		6 32%		3 10%				8 67%				3 27%
4 - 10	30 29%	9 41%	4 16%	1 4%	16 52%	6 50%	3 30%		4 33%	1 6%		9 45%	7 64%
11 - 14	24 23%	7 32%		6 22%	11 35%	4 33%	3 30%			4 25%	2 18%	10 50%	1 9%
15 - 19	24 23%	1 5%	6 24%	16 59%	1 3%		1 10%	6 46%		8 50%	8 73%	1 5%	
20 OR MORE	14 13%	3 14%	7 28%	4 15%			3 30%	7 54%		3 19%	1 9%		

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Table 18
 NUMBER OF YEARS THE VILLAGE BEING ELECTRIFIED AND HOUSEHOLDS HAVING ELECTRICITY
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJGA- MART	PANDH PRAJ	SUMAN HA PHUME	KABET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
100X		100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
IS THE VILLAGE ELECTRIFIED													
YES	75	14	23	14	22	8	6	13	10	14	2	13	9
71X		64X	92X	52X	71X	67X	60X	100X	83X	88X	18X	65X	82X
NO	30	8	2	11	9	4	4		2	2	9	7	2
29X		36X	8X	41X	29X	33X	40X		17X	13X	82X	35X	16X
ALL VILLAGES BEING ELECTRIFIED													
75		14	23	14	22	8	6	13	10	14	2	13	9
100X		100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
NO. OF YEARS BEING ELEC.													
1	10	2		2	6	1	1			1	1	4	2
13X		14X		13X	27X	13X	17X			7X	50X	31X	22X
2	19	4	5	7	3	2	2	2	3	6	1	3	
23X		29X	22X	44X	14X	25X	33X	15X	30X	43X	50X	23X	
3	11	3	4	1	3	1	2	1	3	1		1	2
13X		21X	17X	6X	14X	13X	33X	8X	30X	7X		8X	22X
4 - 5	14	1	4	2	5		1	3	3	2		3	2
19X		7X	24X	13X	23X		17X	23X	30	14X		23X	22X
6 - 7	16	2	7	3	4	2		7		3		1	3
21X		14X	30X	19X	18X	25X		54X		21X		8X	33X
8 - 9	5	2	1	1	1	2			1	1		1	
7X		14X	4X	6X	5X	25X			10X	7X		8X	
NO. OF HOUSEHOLDS HAVING ELEC.													
LESS THAN 30	4		3		1				3				
5X			13X		5X				30X			1	
30 - 59	14	2	7	3	2	1			2	3		2	
19X		14X	30X	19X	9X	13X	17X	38X	20X	21X		15X	
60 - 99	28	7	11	6	4	4		6	5	6		3	1
37X		50X	48X	38X	18X	50X	50X	46X	50X	43X		23X	11X
100 OR MORE	29	5	2	7	15	3		2		5	2	7	8
39X		36X	9X	44X	68X	38X	33X	15X		36X	100X	54X	89X

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Table 19
 HOUSEHOLDS USING ALTERNATIVE ELECTRICITY SOURCE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- MART	PANOM PRAI	SUNAN NA PHUKE	KABET WISAI	NONH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA
Total	109 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
HAVING ALTERNATIVE ELECTRICITY SOURCES													
YES	29 28%	8 36%	3 12%	10 37%	8 26%	4 33%	4 40%	1 8%	2 17%	2 13%	8 73%	6 30%	2 18%
NO	76 72%	14 64%	22 88%	17 63%	23 74%	8 67%	6 60%	12 92%	10 83%	14 88%	3 27%	14 70%	9 82%
ALL WITH ALTERNATIVE ELECT. SOURCES	29 100%	8 100%	3 100%	10 100%	8 100%	4 100%	4 100%	1 100%	2 100%	2 100%	8 100%	6 100%	2 100%
NO. OF HHS USING ALTERNATIVE ELECT. SOURCES													
1 - 3	13 45%	4 50%	3 100%	2 20%	4 50%	1 25%	3 75%	1 100%	2 100%	2 100%		2 33%	2 100%
4 - 6	6 21%	3 39%		1 10%	2 25%	3 75%					1 13%	2 33%	
7 - 9	4 21%	1 13%		5 50%			1 25%				5 63%		
10 OR MORE	4 14%			2 20%	2 25%						2 25%	3 33%	

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Table 20
QUALITY OF LIFE/DEMOGRAPHIC SURVEY
MAIN WATER SUPPLY, SERIOUSNESS OF WATER PROBLEMS AND NO. OF HOUSEHOLDS WITH WATER STORAGE
 Base: ALL RESPONDENTS

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJKA- MART	PANOM PRAI	SUWAN NA PHUME	KASAT WISAI	NONH	NONO BUA	NONO TAP THAI	NA MUAL	BCR PAH KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
MAIN WATER SUPPLY	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
POND/WELL	97	18	23	24	28	11	7	13	12	15	11	19	9
RAINWATER	92%	82%	100%	96%	90%	92%	70%	100%	100%	94%	100%	95%	82%
RIVER/STREAM	59	15	7	1	30	8	7	3	4	1		19	11
OTHERS	30%	48%	28%	4%	97%	67%	70%	23%	33%	6%		95%	100%
SERIOUSNESS OF WATER PROBLEMS	4	1			3	1							3
VERY SERIOUS/A MATTER OF LIFE OR DEATH	4%				10%								27%
SERIOUS/HAPPENS EVERY YEAR	1				1								1
SOMEWHAT SERIOUS/ONLY IN BAD YEARS	1%				3%								9%
NOT VERY SERIOUS	1%				3%								9%
NO. OF HHS WITH W/TEI STORAGE													
NONE	2												
LESS THAN 30	2%	2				2							
30 - 49	19	8	3	5	3	17%							
50 - 69	18%	36%	12%	19%	10%	8			3	3	2	2	1
70 - 99	23	6	5	4	8	67%			1	19%	18%	10%	8
100 OR MORE	22%	27%	20%	15%	24%	2	4	4	1	4	18%	10%	9%
AVERAGE	23	3	10	7	3	17%	40%	31%	8%	25%		40%	
	22%	14%	40%	26%	10%		30%	38%	42%	31%	18%	10%	9%
	23	3	2	7	11			3	2	2	2	5	1
	22%	14%	8%	26%	35%		3	1	17%	13%	18%	25%	9%
							30%	6%	8%	13%	45%	15%	8
	68	39	65	74	87	12	71	70	59	58	97	69	119

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Table 21
 DISTANCES OF NEAREST MAIN TOWN FAR FROM THE VILLAGE ...
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJRA- HART	PANDH PRAI	SUMAN NA PHUME	KASET WISAI	NOM	NONO BUA	NONO TAP THAI	NA MUL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA
Total													
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
<u>DISTANCES OF THE NEAREST MAIN TOWN (KMS.)</u>													
LESS THAN 10	33 31%	4 18%	11 44%		18 58%	4 33%			11 92%			9 45%	7 62%
10 - 15	39 37%	17 77%	1 4%	9 33%	12 39%	8 67%	9 90%		1 8%	6 36%	3 27%	10 50%	2 18%
16 - 19	18 17%	1 5%	1 4%	15 56%	1 3%		1 10%	1 8%		8 50%	7 64%	1 5%	
20 OR MORE	19 14%		12 48%	3 11%				12 92%		2 13%	1 9%		

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QUALITY OF LIFE/DEMOGRAPHIC SURVEY

Table 22

DISTANCES OF NEAREST PROVINCIAL CAPITAL FAR FROM THE VILLAGE ...

Base: ALL RESPONDENTS

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- MART	PANOH PRAI	SAMAN NA PHUME	KASET WIBAI	NDH	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	14 100%	11 100%	20 100%	11 100%
<u>DISTANCES OF THE PROVINCIAL CAPITAL (KMS.)</u>													
LESS THAN 40	10 10%	10 45%					10 100%						
40 - 49	24 23%	12 55%			14 45%	12 100%						13 65%	1 9%
50 - 59	30 29%		11 44%	3 11%	14 52%			11 85%			3 27%	7 35%	9 82%
60 - 69	24 23%		10 40%	12 56%	1 3%			2 15%	8 67%	7 44%	8 73%		1 9%
70 OR MORE	13 12%		4 16%	9 33%				4 33%		9 56%			

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Table 23
 DISTANCES OF NEAREST HOSPITAL FAR FROM THE VILLAGE ...
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A N P H U R				T A M B O L							
		AJSA- PART	PANOH PRAI	SUKAN NA PHUME	KASET WISAI	NOM	NONG DUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	KUANG BUA
Total	103 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	14 100%	11 100%	20 100%	11 100%
<u>DISTANCES OF THE NEAREST HOSPITAL (KMS.)</u>													
LESS THAN 10	34 32%	4 18%	11 44%		19 61%	4 33%			11 92%			10 50%	9 82%
10 - 15	37 35%	17 77%	1 4%	9 33%	10 32%	8 67%	9 90%		1 8%	6 36%	3 27%	8 40%	2 18%
16 - 19	23 22%		6 24%	15 56%	2 6%			6 46%		8 50%	7 64%	2 10%	
20 OR MORE	11 10%	1 5%	7 28%	3 11%			1 10%	7 54%		2 13%	1 9%		

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QUALITY OF LIFE/DEMOGRAPHIC SURVEY

DISTANCES OF THE NEAREST HEALTH CENTER, SCHOOL, TEMPLE AND COMMERCIAL BANK

Base: ALL RESPONDENTS

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- MART	PANOM PRAI	SUMAN NA PHUME	KASET WISAI	NON	NOYO BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	MIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
HEALTH CENTER (KMS.)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
IN THE VILLAGE	14	4	5	2	5	1	3	3	2	1	1	3	2
1	15%	18%	20%	7%	16%	8%	30%	23%	17%	6%	9%	15%	18%
2	10%	9%	8%	7%	13%	1	1	2	2	2		2	2
3	22%	4	12	4	2	2	2	5	7	3	1	10%	18%
4 - 5	21%	18%	48%	15%	6%	17%	20%	38%	58%	19%	9%	5%	9%
6 - 7	18%	5	4	4	5	1	4	3	1	2	2	3	2
8 OR MORE	17%	23%	16%	15%	16%	8%	40%	23%	8%	13%	18%	15%	18%
	24	6	2	8	8	6		2	5	3	5	5	3
	23%	27%	8%	30%	26%	50%		17%	31%	27%	25%	27%	27%
	11	1		5	5	1			3	2	5		
	10%	5%		7%	6%	8%			19%	18%	25%		
	4			2	2					2	1		1
	4%			7%	6%					18%	5%		9%
SCHOOL (KMS.)													
IN THE VILLAGE	63	15	15	15	18	7	8	8	7	8	7	13	5
1	60%	68%	60%	56%	58%	38%	80%	62%	58%	50%	64%	65%	49%
2	19%	4	6	3	6	3	1	5	1	3		5	1
3 OR MORE	18%	18%	24%	11%	19%	23%	10%	38%	8%	19%		25%	9%
	20	2	4	8	6	1	1		4	4	4	2	4
	19%	9%	16%	30%	19%	8%	10%		33%	25%	36%	10%	36%
	3	1		1	1	1			1	1			1
	3%	5%		4%	3%	8%			6%				9%
TEMPLE (KMS.)													
IN THE VILLAGE	95	20	21	24	30	12	8	11	10	14	10	20	10
1	90%	91%	84%	89%	97%	100%	80%	85%	83%	88%	91%	100%	91%
2	8		4	3	1			2	2	2	1		1
	8%		16%	11%	3%			15%	17%	13%	9%		9%
	2	2					2						
	2%	9%					20%						
COMMERCIAL BANK (KMS.)													
1 - 9	29	4	6		19	4			6			10	9
10 - 15	28%	18%	24%		61%	33%			50%			30%	82%
16 - 19	38	16	2	9	11	7			2	6	3	9	2
	36%	73%	8%	33%	35%	58%	90%		17%	38%	27%	45%	18%
20 OR MORE	24	2	6	15	1	1	1	5		8	7	1	
	23%	9%	24%	54%	3%	8%	10%	46%	4	50%	64%	5%	
	14		11	3				7		2	1		
	12%		44%	11%				54%	33%	13%	9%		

Table 25
 FORMS OF TRANSPORTATION AVAILABLE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- MART	PANOM PRAI	SUNAN NA PHUME	KASET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	109 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	14 100%	11 100%	20 100%	11 100%
FORMS OF TRANSPORTATION AVAILABLE													
LOCAL MINIBUS	64 61%	5 23%	23 92%	23 85%	13 42%	1 8%	4 40%	13 100%	10 83%	15 94%	8 73%	6 30%	7 64%
MOTORCYCLE SERVICE	21 20%	2 9%	5 20%	5 19%	9 29%	2 17%		1 8%	4 33%	1 6%	4 36%	8 40%	1 9%
LOCAL VEHICLE USED ON FARM	15 14%	10 45%		2 7%	3 10%	10 83%					2 18%	2 10%	1 9%
MINIBUS/PICKUP SERVICE	10 10%	1 5%	1 4%	5 19%	3 10%		1 10%		1 8%	4 25%	1 9%	3 15%	
BUS SERVICE	9 9%	8 36%	1 4%			6 50%	2 20%		1 8%				
OTHERS	2 2%	1 5%			1 3%	1 8%						1 5%	
NONE	18 17%	5 23%	2 8%	2 7%	9 29%	1 8%	4 40%		2 17%	1 6%	1 9%	7 35%	2 18%

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Table 26
 NUMBER OF MOTOR CAR AND MINIBUS/PICKUP IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- MART	PANOH PRAI	BUNAN NA PHUHE	KABET WISAI	NOH	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	HUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
<u>MOTOR CAR</u>													
1	3 3%		2 8%		1 3%			1 8%	1 8%				1 9%
NONE	102 97%	22 100%	23 92%	27 100%	30 97%	12 100%	10 100%	12 92%	11 92%	16 100%	11 100%	20 100%	10 91%
<u>MINIBUS/PICKUP</u>													
1	22 21%	5 23%	7 28%	6 22%	4 13%	3 25%	2 20%	4 31%	3 25%	4 25%	2 18%	2 10%	2 18%
2 - 3	11 10%	2 9%		4 15%	5 16%	1 8%	1 10%			2 13%	2 18%	1 5%	4 36%
4 OR MORE	10 10%		4 16%	5 19%	1 3%			2 15%	2 17%	4 25%	1 9%	1 5%	
NONE	62 59%	15 68%	14 56%	12 44%	21 68%	8 67%	7 70%	7 54%	7 58%	6 38%	6 55%	16 80%	5 45%

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QUALITY OF LIFE/DEMOGRAPHIC SURVEY

Table 27
NUMBER OF MOTORCYCLE IN THE VILLAGE
Base: ALL RESPONDENTS

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- MART	PANDH PRAI	SUWAN NA PHUME	KASET WIBAI	NONH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
<u>NUMBER OF MOTORCYCLE IN THE VILLAGE</u>													
1 - 3	23 22%	5 23%	8 32%	5 19%	5 16%	4 33%	1 10%	3 23%	5 42%	4 25%	1 9%	5 25%	
4 - 6	32 30%	11 50%	7 28%	6 22%	8 26%	5 42%	6 60%	4 31%	3 25%	3 19%	3 27%	7 35%	1 9%
7 - 9	24 23%	3 14%	7 28%	6 22%	8 26%	2 17%	1 10%	4 31%	3 25%	5 31%	1 9%	5 25%	3 27%
10 - 19	17 16%	1 5%	1 4%	7 26%	8 26%		1 10%	1 8%		2 13%	5 45%	2 10%	6 55%
20 OR MORE	9 9%	2 9%	2 8%	3 11%	2 6%	1 8%	1 10%	1 8%	1 8%	2 13%	1 9%	1 5%	1 9%
AVERAGE	10	9	11	12	9	7	12	15	6	10	14	7	13

Table 28
 NUMBER OF BICYCLE IN THE VILLAGE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- MART	PANDH PRAI	SUWAN NA PHUNE	KASET WIBAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MJANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
NUMBER OF BICYCLE IN THE VILLAGE													
LESS THAN 30	24 23%	3 14%	5 20%	3 11%	13 42%	1 8%	2 20%	2 15%	3 25%	1 6%	2 18%	10 50%	3 27%
30 - 49	26 25%	9 41%	9 20%	8 30%	4 13%	6 50%	3 30%	4 31%	1 8%	6 38%	2 18%	2 10%	2 18%
50 - 69	26 25%	4 18%	10 40%	5 19%	7 23%	3 25%	1 10%	4 31%	6 50%	3 19%	2 18%	5 25%	2 18%
70 - 99	18 17%	5 23%	3 12%	8 30%	2 6%	2 17%	3 30%	1 8%	2 17%	3 19%	5 45%	1 5%	1 9%
100 OR MORE	10 10%	1 5%	2 8%	3 11%	4 13%		1 10%	2 15%		3 19%		1 5%	3 27%
NONE	1 1%				1 3%							1 5%	
AVERAGE	55	58	57	62	44	52	66	60	54	63	57	33	64

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

Table 29
NUMBER OF TELEVISION SET IN THE VILLAGE
Base: ALL RESPONDENTS

	Total	AREA OF THE SURVEY											
		AMPHUR				TAMBOL							
		AJBA- HART	PANOH PRAI	SUWAN NA PHUME	KABET WIBAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	109 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
NUMBER OF TELEVISION SET IN THE VILLAGE													
1 - 3	14 13%	4 18%	2 8%	3 11%	5 16%	2 17%	2 20%		2 17%	2 13%	1 9%	3 15%	2 18%
4 - 6	11 10%	2 9%	3 12%	3 11%	3 10%	1 8%	1 10%	1 8%	2 17%	1 6%	2 18%	3 15%	
7 - 9	16 15%	1 5%	3 12%	8 30%	4 13%		1 10%	2 15%	1 8%	4 25%	4 36%	3 15%	1 9%
10 - 15	25 24%	5 23%	9 36%	4 15%	7 23%	3 25%	2 20%	7 54%	2 17%	3 19%	1 9%	4 20%	3 27%
16 - 19	9 9%	4 18%	1 4%	3 11%	1 3%	2 17%	2 20%	1 8%		2 13%	1 9%	1 5%	
20 - 29	14 13%	2 9%	4 16%	2 7%	6 19%	1 8%	1 10%		4 33%	2 13%		2 10%	4 36%
30 OR MORE	11 10%	2 9%	3 12%	3 11%	3 10%	2 17%		2 15%	1 8%	2 13%	1 9%	2 10%	1 9%
NONE	5 5%	2 9%		1 4%	2 6%	1 8%	1 10%				1 9%	2 10%	
AVERAGE	35	13	19	15	14	15	11	24	14	18	11	11	18

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

Table 30
NUMBER OF RADIO IN THE VILLAGE
Base: ALL RESPONDENTS

		A R E A O F T H E S U R V E Y											
		A N P H U R				T A M B O L							
		AJBA- MART	PANON PRAI	SUMAN NA PHUME	KABET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	ROR PAN KAN	HIN KONG	LAD LUANG	NUJANG BUA
Total	100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
NUMBER OF RADIO IN THE VILLAGE													
LESS THAN 30	10 10%	2 9%	3 12%	1 4%	4 13%	2 17%		1 8%	2 17%		1 9%	3 15%	1 9%
30 - 49	19 18%	5 23%	7 28%	2 7%	5 16%		5 50%	3 23%	4 33%	1 6%	1 9%	5 25%	
50 - 69	24 23%	6 27%	7 28%	6 22%	7 23%	5 42%	1 10%	4 31%	3 25%	6 38%		4 20%	3 27%
70 - 99	29 28%	6 27%	7 28%	10 37%	6 19%	4 33%	2 20%	4 31%	3 25%	6 39%	4 36%	3 15%	3 27%
100 OR MORE	21 20%	3 14%	1 4%	3 10%	9 29%	1 8%	2 20%	1 8%		3 19%	5 45%	5 25%	4 36%
AVERAGE	76	49	60	96	76	70	47	67	53	80	119	68	92

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

Table 31
NUMBER OF REFRIGERATOR IN THE VILLAGE
Base: ALL RESPONDENTS

	Total	A R E A O F T H E S U R V E Y											
		A N P H U R				T A M B O L							
		AJRA- HART	PANOH PRAI	SUNAN NA FHUNE	KASET WISAI	NONH	NONO BUA	NONO TAP THAI	NA NUAL	BUR PAN KAN	HIN KONG	LAD LUANG	HUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
NUMBER OF REFRIGERATOR IN THE VILLAGE													
1 - 3	32 30%	5 23%	11 44%	8 30%	8 26%	3 25%	2 20%	5 38%	6 50%	7 44%	1 9%	6 30%	2 18%
4 - 6	24 23%	6 27%	5 20%	5 19%	8 26%	2 17%	4 40%	4 31%	1 8%	5 31%		3 15%	5 45%
7 - 9	5 5%	1 5%	2 8%		2 6%	1 8%		2 15%				2 10%	
10 OR MORE	9 9%	1 5%	2 8%	3 11%	3 10%	1 8%		1 8%	1 8%	2 13%	1 9%	1 5%	2 18%
NONE	35 33%	9 41%	5 20%	11 41%	19 32%	5 42%	4 40%	1 8%	4 33%	2 13%	9 82%	8 40%	2 18%
AVERAGE	4	3	5	3	4	3	2	8	2	4	2	3	5

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

Table 32
NUMBER OF SEWING MACHINE IN THE VILLAGE
Base: ALL RESPONDENTS

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- MART	PANDH PRAI	SUMAN NA PHUME	KASET HISAI	NOM	NONG SUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MJANG SUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
<u>NUMBER OF SEWING MACHINE IN THE VILLAGE</u>													
1 - 3	26 25%	5 23%	6 24%	5 19%	10 32%	3 25%	2 20%		6 50%	3 19%	2 18%	8 40%	2 18%
4 - 6	29 28%	5 23%	6 24%	7 26%	11 35%	3 25%	2 20%	3 23%	3 25%	3 19%	4 36%	7 35%	4 36%
7 - 9	18 17%	3 14%	5 20%	7 26%	3 10%	1 8%	2 20%	4 31%	1 8%	5 31%	2 18%	1 5%	2 18%
10 - 19	31 20%	5 23%	4 16%	6 22%	6 19%	3 25%	2 20%	3 23%	1 8%	5 31%	1 9%	4 20%	2 18%
20 OR MORE	10 10%	4 18%	3 12%	2 7%	1 3%	2 17%	2 20%	3 23%			2 18%		1 9%
NONE	1 1%		1 4%						1 8%				
AVERAGE	6	12	6	6	6	10	14	12	4	7	9	5	8

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Table 34
 OTHER SOURCES OF INCOME BESIDES FARMING
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- MART	PANOH PRAI	SUNAN NA PHUME	KASET WIBAI	NOM	NONG BUA	NONG TAP THAI	NA MUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
OTHER SOURCES OF INCOME													
GENERAL LABOR	19 18%	8 36%	2 8%	7 26%	2 6%	5 42%	3 30%	1 8%	1 8%	2 13%	5 45%	2 10%	
CONSTRUCTION/CARPENTER	12 11%	10 45%	1 4%		1 3%	5 42%	5 50%	1 8%				1 5%	
MISCELLANEOUS RETAILING	10 10%	4 18%	5 20%		1 3%	1 8%	3 30%	5 38%				1 5%	
RAISE SILKWORMS/ SILK WEAVING	9 9%	1 5%	1 4%	3 11%	4 13%	1 8%			1 8%	3 19%		3 15%	1 9%
BASKET WEAVING	7 7%	2 9%	1 4%		4 13%	1 8%	1 10%		1 8%			4 20%	
OTHERS	6 6%	4 18%			2 6%	4 33%						1 5%	1 9%
NONE	65 62%	6 27%	18 72%	17 63%	24 77%	1 8%	5 50%	8 62%	10 83%	11 69%	4 35%	14 70%	10 91%

Table 33
 LABOR MIGRATION TO OUTSIDE THE VILLAGE TO EARN EXTRA INCOME
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJBA- MART	PANDH PRAI	BUMAN NA PHUHE	KABET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
<u>HAVING LABOR MIGRATION TO OUTSIDE THE VILLAGE</u>													
YES	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
ALL WITH LABOR MIGRATION TO OUTSIDE THE VILLAGE	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
<u>PLACES OF MIGRATION</u>													
BANGKOK	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
NEARBY PROVINCE	90 84%	14 64%	20 80%	25 93%	31 100%	5 42%	9 90%	8 62%	12 100%	15 94%	10 91%	20 100%	11 100%
NEARBY AMPHOE	38 36%	10 45%	4 16%	9 33%	15 48%	4 33%	6 60%	1 8%	3 25%	5 31%	4 36%	12 60%	3 27%
NEARBY DISTRICT	16 15%	7 32%	1 4%	2 7%	6 19%	4 33%	3 30%		1 8%	2 13%		5 25%	1 9%
NEARBY VILLAGE	15 14%	7 32%	1 4%	1 4%	6 19%	4 33%	3 30%		1 8%	1 6%		6 30%	
<u>DURATION OF STAY</u>													
A WEEK AT A TIME	1 1%	1 5%				1 8%							
A MONTH AT A TIME	12 11%		1 4%	9 33%	2 6%			1 8%		7 44%	2 18%	2 10%	
MORE THAN THAT	92 88%	21 95%	24 96%	18 67%	29 94%	11 92%	10 100%	12 92%	12 100%	9 56%	9 82%	18 90%	11 100%

Table 36
 VILLAGERS GOING ABROAD TO WORK, COUNTRIES AND NUMBER OF PEOPLE GONE ABROAD
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJEA- MART	PANON PRAI	SUNAN NA PHUME	KASET WISAI	NONH	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105	22	25	27	31	12	10	13	12	16	11	20	11
VILLAGERS GOING ABROAD TO WORK	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
YES	49	15	10	6	18	6	9	6	4	1	5	10	8
	47X	68X	40X	22X	58X	50X	90X	46X	33X	6X	45X	50X	73X
NO	56	7	15	21	13	6	1	7	8	15	6	10	3
	53X	32X	60X	78X	42X	50X	10X	54X	67X	94X	55X	50X	27X
ALL GOING ABROAD TO WORK	49	15	10	6	18	6	9	6	4	1	5	10	8
	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
COUNTRIES GONE TO													
SAUDI ARABIA	36	8	5	6	17	3	5	3	2	1	5	9	8
	73X	53X	50X	100X	94X	50X	56X	50X	50X	100X	100X	90X	100X
OTHER MIDDLE EASTERN COUNTRY	14	7	5	1	1	2	5	3	2		1		1
	29X	47X	50X	17X	6X	33X	56X	50X	50X		20X		13X
SINGAPORE	4	1		1	2		1				1	2	
	8X	7X		17X	11X		11X				20X	20X	
OTHER COUNTRY	5	1	1	1	2	1		1			1	2	
	10X	7X	10X	17X	11X	17X		17X			20X	20X	
NUMBER OF PEOPLE GONE ABROAD													
1	20	8	4	3	5	4	4	2	2	1	2	3	2
	41X	53X	40X	50X	28X	67X	44X	33X	50X	100X	40X	30X	25X
2	16	5	3	1	7	2	3	1	2		1	3	4
	33X	33X	30X	17X	39X	33X	33X	17X	50X		20X	30X	50X
3	5		2		3			2				1	2
	10X		20X		17X			33X				10X	25X
4	3			2	1							1	
	6X			33X	6X							1	
5	4	1	1		2		1	1			2	10X	
	8X	7X	10X		11X		11X	17X			40X	2	
DON'T KNOW	1	1					1					20X	
	2X	7X					11X						

Table 37
PROFILE
Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

	Total	A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- HART	PANOM PRAI	SUNAN NA PHUME	KASET WIBAI	NDM	NDNG BUA	NDNG TAP THAI	NA MUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA
Total	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
DURATION OF LIVING IN THIS VILLAGE													
SINCE BIRTH	73 70%	12 55%	19 76%	17 63%	25 81%	5 42%	7 70%	11 85%	8 67%	9 56%	8 73%	15 75%	10 91%
LESS THAN 20 YEARS	7 7%	1 5%	1 4%	3 11%	2 6%	1 8%		1 8%		2 13%	1 9%	2 10%	
20 - 29 YEARS	13 12%	3 23%	3 12%	2 7%	3 10%	3 25%	2 20%		3 25%	1 6%	1 9%	2 10%	1 9%
30 YEARS OR MORE	12 11%	4 18%	2 8%	5 19%	1 3%	3 25%	1 10%	1 8%	1 8%	4 25%	1 9%	1 5%	
AGE													
LESS THAN 40	19 18%	6 27%	2 8%	4 15%	7 23%	3 25%	3 30%	1 8%	1 8%	3 17%	1 9%	6 30%	1 9%
40 - 44	12 11%	4 18%	2 8%	2 7%	4 13%	2 17%	2 20%	2 15%		1 6%	1 9%	3 15%	1 9%
45 - 49	22 21%		6 24%	6 22%	10 32%			4 31%	2 17%	2 13%	4 36%	5 25%	5 45%
50 - 54	28 27%	7 32%	9 36%	9 33%	3 10%	4 33%	3 30%	3 23%	6 50%	6 38%	3 27%	3 15%	
55 OR MORE	24 23%	3 23%	6 24%	6 22%	7 23%	3 25%	2 20%	3 23%	3 25%	4 25%	2 18%	3 15%	4 36%
OCCUPATION													
FARMER	105 100%	22 100%	25 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
EDUCATION LEVEL													
PRIMARY SCHOOL (FINISHED & NOT FINISHED)	94 90%	19 86%	23 92%	25 93%	27 87%	10 83%	9 90%	12 92%	11 92%	15 94%	10 91%	18 90%	9 82%
SECONDARY SCHOOL (FINISHED & NOT FINISHED)	11 10%	3 14%	2 8%	2 7%	4 13%	2 17%	1 10%	1 8%	1 8%	1 6%	1 9%	2 10%	2 18%
MARITAL STATUS													
MARRIED	103 98%	22 100%	24 96%	27 100%	30 97%	12 100%	10 100%	12 92%	12 100%	16 100%	11 100%	17 95%	11 100%
OTHERS	2 2%		1 4%		1 3%			1 8%				1 5%	

Table 38
 PROFILE
 Base: ALL RESPONDENTS

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

		A R E A O F T H E S U R V E Y											
		A M P H U R				T A M B O L							
		AJSA- HART	PANOM PRAI	SUWAN NA PHUME	KASET WISAI	NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA
Total	105 100%	22 100%	29 100%	27 100%	31 100%	12 100%	10 100%	13 100%	12 100%	16 100%	11 100%	20 100%	11 100%
ANNUAL INCOME													

LESS THAN 5000	3 3%		2 8%	1 4%				2 15%			1 9%		
5000 - 9999	22 21%	4 18%	5 20%	4 15%	9 29%	1 8%	3 30%	5 38%		2 13%	2 18%	8 40%	1 9%
10000 - 14999	29 28%	4 18%	9 36%	8 30%	8 26%	1 8%	3 30%	3 23%	6 50%	4 25%	4 36%	4 20%	4 36%
15000 - 19999	26 25%	5 23%	6 24%	6 22%	9 29%	3 25%	2 20%	2 15%	4 33%	5 31%	1 9%	6 30%	3 27%
20000 - 29999	18 17%	5 23%	2 8%	6 22%	5 16%	5 42%			2 17%	4 25%	2 18%	2 10%	3 27%
30000 OR MORE	7 7%	4 18%	1 4%	2 7%		2 17%	2 20%	1 8%		1 6%	1 9%		
AVERAGE	14885	18386	12680	16033	13177	21167	15050	10385	15167	16713	15045	12150	15045

QUESTIONNAIRE

QUALITY OF LIFE/DEMOGRAPHIC SURVEY

Respondent Name

- Amphur : Aisamart.....1 (7)
- Panom Prai.....2
- Suwannaphume.....3
- Kasetwisai.....4
- Tambol : Nom.....1 (8)
- Nong Bua.....2
- Nong Tap Thai....3
- Na Nual.....4
- Bor Pan Kan.....5
- Hin Kong.....6
- Lao Luang.....7
- Muang Bua.....8

Code for village : (9-10)

Interviewer Instruction :

You are to contact the most knowledgeable person in the village. This will most likely be the village headman. If, after contacting the village headman, he refers you to another person, then contact that person. The respondent must be a resident of the village.

- Who is the respondent? Village headman.....1 (11)
- Other (specify) 2

10/4/5

I. POPULATION

1. First of all, can you tell me the total population of the village, including both men, women, adults, and children?

Total population

2. How many of these are men and how many are women?

Men

Women

3. How many adults are there and how many children are there?

Adults -----

Children

Interviewer : Approximate answers are acceptable, but make sure that the answers in Q.2 & 3 each sum up to the total population.

4. Finally, how many households are there in your village?
No. of households

II. LIVELIHOOD

5. What is the main occupation of the people in this village
Agriculture/farming.....1
Other (specify) 2
6. Approximately what percentage of the households in the village are involved in agriculture/farming?
% involved in agriculture/farming
- 7a. What crops are grown in the village? (Multiple answer.)
High yield variety rice.....1
Local rice variety.....2
Glutinous rice.....3
Corn.....4
Vegetables.....5
Beans.....6
Others (specify)
- 7b. Of these crops, which would you say is the most important one for your village? (Single answer only.)
Crop:
8. Do you have any of the following organizations in the village that are related to agriculture?
Agricultural cooperative..1
Rice/seed bank.....2
Seed bank for other crop..3
Local BAAC.....4
9. Can you tell me the types of farm animals that are raised in the village, either for use as draft animals or raised for food? Please also tell me how many of(animal) there are in the village. (An approximate number or estimate is sufficient.)
- | Animal | Number |
|--------------------|--------|
| Water buffalo..... | 1 |
| Oxen/cows..... | 2 |
| Pigs..... | 3 |
| Ducks..... | 4 |
| Chickens..... | 5 |
| Other (specify) | |

10. What type of farm equipment is available in the village, i.e. owned and used by villagers? Can you also give me the approximate number of such equipment in the village?

Type	Number
Tractors.....	1
Sprayers.....	2
Tillers.....	3
Water pumps.....	4
Mechanical buffalo..	5
Other (specify)	

11a. How often is the village visited by government officials connected with agriculture, such as agricultural extension officers, livestock department officials, fisheries officials?

- Once a week or more often.....1
- Once every 2-3 weeks.....2
- Once a month.....3
- Once every 2-3 months.....4
- Less often than that.....5
- Never visited the village.....X

11b. When was the last time that any of these officials visited the village, how many months ago?

_____ months ago

12. What is the main source of irrigation for your crops?

- Rainfall.....1
- Stream/river.....2
- Pond/well.....3
- Other (specify)_____

13. What do you consider to be the 3 most important problems for the village today with respect to agriculture and farming?

- 1. _____
- 2. _____
- 3. _____

14. How far is it from the village to the nearest (or local) rice mill?

_____ kms.

15. How far is it to the nearest agro-chemical outlet where you can buy fertilizer, seeds, and pesticides?

_____ kms.

III. PUBLIC UTILITIES

16. Is this village electrified, i.e. connected to high power wires of the Provincial Electricity Generating Authority?

Yes.....1
No.....2 (Go to Q.19)

17. For how many years has the village been electrified?
years

18. How many households do you estimate have electricity in their houses?

households

Interviewer:

Answer must not be more than the total number of households in the village.

19. Does anyone in the village have alternative electricity sources, such as portable generators or diesel engine run generators?

Yes.....1
No.....2

If "yes"

19a. Approximately how many households have these alternative energy sources?
households

20. What is the main water supply for use by the households as opposed to for use in agriculture?

Rainwater.....1
River/stream.....2
Pond/well.....3
Other (specify).....

21. Do you have any problems with water in your village? If you do, how serious would you rate the problem?

Very serious/a matter of life or death...1
Serious/happens every year.....2
Somewhat serious/only in bad years.....3
Not very serious.....4
No problem at all.....5

22. How many households do you estimate have water storage jars or other facility for storing water?

households

IV. GEOGRAPHICAL DISTANCES

23. How far is it in kilometers from your village to?
- the nearest main townkms
 - the provincial capitalkms
 - the nearest hospitalkms
 - the nearest health centerkms
 - the nearest schoolkms
 - the nearest templekms
 - the nearest commercial bankkms
24. What forms of transportation are available?
- Motorcycle service.....1
 - Minibus/pickup service.....2
 - Bus service.....3
 - Other (specify).....
 - None at all.....X

V. CONSUMER DURABLES

25. I am going to read you the names of some items and I want you to tell me if anyone in the village owns one of these, and then I would like you to tell me how many of these you think there are in the village?

Item	Number
Motor car.....	1
Pickup truck.....	2
Motorcycle.....	3
Bicycle.....	4
Television.....	5
Radio.....	6
Refrigerator.....	7
Sewing machine.....	8

VI. MEDIA HABITS

26. Do people in the village do any of the following activities?
- Watch television.....1
 - Listen to radio.....2
 - Read newspapers.....3
 - Read magazines.....4
27. What would you say is the most important source of information on current affairs for the village?
- Television.....1
 - Newspapers.....2
 - Radio.....3
 - Government officials.....4
 - Villagers who have returned from outside...5
 - Other (specify)6

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VII. OTHER INCOME AND MIGRATION

28. Besides farming, what other sources of income do villagers have?

- 1.
- 2.
- 3.

29. Is there any labor migration to outside the village to earn extra income?

- Yes.....1
No.....2

If "Yes" : a) Where do they go?

- Bangkok.....1
Nearby province.....2
Nearby district.....3
Nearby village.....4
Other (specify)

b) How long do they stay to work?

- A day at a time.....1
A week at a time.....2
A month at a time.....3
More than that.....4

30. Have any villages gone abroad to work?

- Yes.....1
No.....2

If "yes" : a) How many have gone abroad to work?

b) Where did they go to?

- Saudi Arabia.....1
Other Middle Eastern country....2
Other country (specify).....

c) Did they come back to the village after their work tour?

- Yes.....1
No.....2

not

บริษัท ดีมาร์ จำกัด
 29/5 ซอยศาลาแดง 1
 ถนนศาลาแดง
 กรุงเทพฯ 10500
 โทร. 2353487

T.1(1)
 Job No. 9953 (2-5)
 แบบสอบถามเลขที่. (6-8)

QUALITY OF LIFE/DEMOGRAPHIC SURVEY
 (Village Level)

ชื่อผู้ให้สัมภาษณ์: _____

อำเภอ:	ตำบล:
อาจสามารถ 1(9)	หนอง 1(10)
	หนองบัว 2
หมนไพร 2	หนองหัวไทร 3
	นาบวค 4
สุวรรณภูมิ 3	บ่อคันดิน 5
	หินกอง 6
เกษตรวิสัย 4	เหล่าหลวง 7
	เมืองบัว 8

หมู่บ้านที่: _____ ชื่อหมู่บ้าน: _____

ชื่อพนักงานสัมภาษณ์: _____

พนักงานสัมภาษณ์: ให้ติดต่อสัมภาษณ์ผู้ให้สัมภาษณ์ของหมู่บ้านในตำบลที่ระบุไว้ ถ้าผู้ให้สัมภาษณ์แนะนำคนอื่น
 ที่มีความรู้มากกว่าก็ให้ติดต่อคนนั้นแทน หรือ สัมภาษณ์ท่านก็ได้

ผู้ให้สัมภาษณ์เป็น: ผู้ให้สัมภาษณ์ของหมู่บ้านนั้น 1(11)
 อื่น ๆ (ระบุ) _____ (12)

I. ส่วนประชากร

1. ก่อนอื่น ผมขอทราบว่า านหมู่บ้านนี้มีประชากรทั้งหมดกี่คนครับ
(ถ้าไม่ทราบแน่นอน ให้ประมาณเองก็ได้)

--	--	--	--

 คนทั้งหมด
(13)(14)(15)(16)

2. และจากคนทั้งหมดนี้ เป็นผู้ชายกี่คนครับ และเป็นผู้หญิงกี่คนครับ

--	--	--	--

 ชาย
(17)(18)(19)(20)

--	--	--	--

 หญิง
(21)(22)(23)(24)

(พนักงานสัมภาษณ์: คำนวณข้อ 2 รวมกันแล้วต้องได้คำตอบข้อ 1)

3. และเป็นผู้ใหญ่ (อายุ 15 ปีขึ้นไป) กี่คนครับและเป็นเด็ก (อายุน้อยกว่า 15 ปี) กี่คนครับ

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 ผู้ใหญ่
(25)(26)(27)(28)

--	--	--	--

 เด็ก
(29)(30)(31)(32)

(พนักงานสัมภาษณ์: คำนวณข้อ 3 รวมแล้วต้องได้คำตอบข้อ 1)

4. และหมู่บ้านนี้ มีครอบครัวกี่ครอบครัวครับ

--	--	--

 ครอบครัว
(33)(34)(35)

II. การเกษตร

5. คนส่วนาหมู่บ้านมีอาชีพหลักอะไรครับ ชานา/การเกษตร 1(36)
 อื่น ๆ(ระบุ) _____ 2(37)
(38)

6. จากครอบครัวทั้งหมดคนหมู่บ้าน ประมาณ x
 สังกัเปอรเซนต์เป็นชานาครัว (39)(40)(41)

7ก. และงานหมู่บ้านปลูกพืชไร่อะไรบ้างครับ (มีได้หลายคำตอบ)

7ข. และพืชไร่นั้น เป็นพืชที่สำคัญที่สุดครับ (คำตอบเดียว)

	ข้อ 7ก	ข้อ 7ข
ข้าวผลผลิตสูง พันธุ์ ก.ช.	1(42)	1(52)
ข้าวผลผลิตสูง พันธุ์อื่น	2(43)	2
ข้าวพันธุ์พื้นเมือง	3(44)	3
ข้าวเหนียว	4(45)	4

ข้าวโพด	5(46)	5
ผักต่าง ๆ	6(47)	6
ถั่ว	7(48)	7
อื่น ๆ(ระบุ) _____	8(49)	8
_____	9(50)	9
_____	0(51)	0

8. งานหมู่บ้านมี (อ่าน) หรือเปล่าครับ สหกรณ์การเกษตร 1(53)
 มีธนาคารอื่นอีกไหมครับ ธนาคารข้าว 2(54)
ธนาคารสำหรับพืชอื่น 3(55)
ธนาคารการเกษตร 4(56)
 อื่น ๆ(ระบุ) _____

9. ผมขอทราบว่า งานหมู่บ้านเลี้ยงสัตว์อะไรบ้างครับ (อ่าน) และมีประเภทที่ทำงานหมู่บ้านครับ มีสัตว์อย่างอื่นอีกไหมครับที่ผมไม่ได้เอ่ย

สัตว์	จำนวน
ควาย 1	_____ (57-59)
โค/กระบือ 2	_____ (60-62)
หมู 3	_____ (63-66)
เป็ด 4	_____ (67-70)
ไก่ 5	_____ (71-74)
อื่น ๆ(ระบุ)	_____
_____	_____
_____	_____
_____	_____

75 76 77 78 79 80

III. ไฟฟ้าและน้ำ

16. หมู่บ้านมี มีไฟฟ้าหลวงใช้ไหมครับ มี 1(39)
ไม่มี 2 -(ข้ามไปข้อ 19)
17. และมีไฟฟ้าหลวงใช้มากี่ปีแล้วครับ ปี(40-41)
18. และมีที่ครอบคร้วในหมู่บ้าน ที่ใช้ไฟฟ้าหลวงครับ ครอบคร้ว (42-44)
19. ในหมู่บ้านมีการจ่ายไฟนั้นเองบ้างไหมครับ จ่าย 1(45)
ไม่จ่าย 2

กั "จ่าย"

- 19ก. และมีประมาณที่ครอบคร้วที่ขึ้นไฟฟ้าจ่ายเองครับ _____ ครอบคร้ว (46-47)
20. และครอบคร้วในหมู่บ้านมีบ้าน/น้ำกิน/น้ำใช้ จากแหล่งไหนครับ น้ำฝน 1(48)
สายธาร/คลอง 2(49)
บ่อน้ำ 3(50)
อื่น ๆ(ระบุ) _____ 4(51)
21. ในหมู่บ้านมีปัญหาขาดแคลนน้ำหรือเบร่าครับ จ่ายนางมาก : เป็นเรื่องจะเป็นจะตาย .. 1(52)
ภัยแรงพอดวร: เกิดขึ้นทุกปี 2
ไม่ค่อยภัยแรง: เกิดขึ้นเฉพาะบางปี ... 3
ไม่ค่อยมีปัญหาเรื่องน้ำ 4
ไม่มีปัญหาเลย 5

22. มีที่ครอบคร้ว ที่มีถังน้ำ/ตุ้ม เก็บน้ำขนาดใหญ่ เพื่อเก็บน้ำฝนใช้ครับ ครอบคร้ว
(53)(54)(55)

๒๖

IV. ระยะเวลา

23. หน้บ้านนี้ ห่างจาก (อ่าน) ก็กิโลเมตรครับ
- | | | |
|----------------------------|-------|------------------|
| ตัวอำเภอ | _____ | กิโลเมตร (56-57) |
| ตัวจังหวัด | _____ | กิโลเมตร (58-59) |
| โรงพยาบาลที่ใกล้ที่สุด | _____ | กิโลเมตร (60-61) |
| ศูนย์อนามัยที่ใกล้ที่สุด | _____ | กิโลเมตร (62-63) |
| โรงเรียนที่ใกล้ที่สุด | _____ | กิโลเมตร (64-65) |
| วัดที่ใกล้ที่สุด | _____ | กิโลเมตร (66-67) |
| ธนาคารพาณิชย์ที่ใกล้ที่สุด | _____ | กิโลเมตร (68-69) |
24. งานหมู่บ้านมี (อ่าน) หรือเปล่าครับ
- | | | |
|---------------------|-------|-------|
| หมอประจำบ้าน | | 1(70) |
| ปศุสัตว์ประจำ | | 2(71) |
| สายรถเมล์ผ่าน | | 3(72) |
| อื่น ๆ (ระบุ) _____ | | 4(73) |
| ไม่มีเลย | | X |

V. ขอบข่าย

25. ต่อบนนี้ ผมจะอ่านชื่อสิ่งของบางอย่าง และอยากทราบว่าจำนวนหน้าหรือจำนวนครั้ง และถ้ามี ขอทราบ
รายละเอียดที่เครื่องครับ

	<u>จำนวน</u>	<u>T.3(1)</u>
รถเก๋ง	1	_____ (2-3)
รถบัส/กระบะ	2	_____ (4-5)
มอเตอร์ไซด์	3	_____ (6-8)
จักรยาน	4	_____ (9-11)
พาหนะอื่น	5	_____ (12-14)
วิทยุ	6	_____ (15-17)
ตู้เย็น	7	_____ (18-20)
จักรเย็บผ้า	8	_____ (21-23)

VI. สื่อสารมวลชน

26. งามหมู่บ้าน (อ่าน) บ้างหรือแปลคำด้วย

ดูโทรทัศน์	1(24)
ฟังวิทยุ	2(25)
อ่านหนังสือพิมพ์รายวัน	3(26)
อ่านนิตยสาร	4(27)
มีห้องสมุดประจำหมู่บ้าน	5(28)

27. สหกรณ์ข้าวสารประจำวัน แหล่งข่าวแหล่งไหนสำคัญที่สุด สำหรับหมู่บ้านครับ

โทรทัศน์	1(29)
หนังสือพิมพ์	2
วิทยุ	3
ข้าราชการ	4
ชาวบ้านที่เพิ่งเดินทางกลับมาจากที่อื่น	5
แหล่งอื่น (ระบุ)	6

VII. การหาทุนและรายได้เพิ่มเติม

28. นอกเหนือจากการหาทุนและการเกษตรแล้ว คนในหมู่บ้านมีรายได้อื่นอีกไหมครับ จากการทำอะไรบ้างครับ					
1.	_____				30
2.	_____				31
3.	_____				31
	ไม่มีรายได้	N			32 33 34 35
29. มีวิธีการหาทุนนอกหมู่บ้าน บ้างไหมครับ		มี	1	(36)	
		ไม่มี	2		
<u>ถ้า "มี"</u>					
ก.	ไปรับจ้างหาทุนที่ไหนบ้างครับ	กรุงเทพ	1	(37)	
		ต่างจังหวัด/ระดับจังหวัด	2	(38)	
		ต่างอำเภอ/ระดับอำเภอ	3	(39)	
		ต่างตำบล/ระดับตำบล	4	(40)	
		ต่างหมู่บ้าน	5	(41)	
		อื่น(ระบุ)	6	(42)	
ข.	และส่วนอื่นๆ ไปอยู่หาทุนกันนานแค่ไหนครับ	ที่ละวัน	1	(43)	
		ที่ละสัปดาห์	2		
		ที่ละเดือน	3		
		นานกว่านั้น	4		
30. เคยมีชาวบ้านที่ไปต่างประเทศ เพื่อไปหาทุนหรือเปล่าครับ		มี	1	(44)	
		ไม่มี	2		
<u>ถ้า "มี"</u>					
ก.	ไปประเทศไหนครับ	_____ คน	(45-46)		
ข.	และไปประเทศไหนครับ	ซาอุดีอาระเบีย	1	(47)	
		ประเทศอื่นในทวีปออกกลาง	2	(48)	
		ประเทศอื่น ๆ(ระบุ)	3	(49)	
				(50)	
				(51)	

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VIII. วัตถุประสงค์ของพินัยกรรม

31. ตัวคุณเองอยู่ขณะนี้ มากี่ปีแล้วครับ	ตั้งแต่เกิด 1 (52) อื่น (ระบุจำนวนปี) _____ ปี (53-54)
32. คุณอายุเท่าไรครับ	_____ ปี (55-58)
33. คุณอาชีพอะไรครับ	ชานา/เกษตรกร 1 (57) อื่น ๆ (ระบุ) _____ 2
34. ขอทราบการศึกษาขั้นสุดท้ายของคุณหน่อยครับ	อ่านเขียนไม่ได้ 1 (58) ประถม (ไม่จบ) 2 ประถม (จบ) 3 มัธยม (ไม่จบ) 4 ----- มัธยม (จบ) 5 อาชีวศึกษา (เกษตร) ชั้นต้น 6 อาชีวศึกษา (อื่น ๆ) ชั้นต้น 7 สูงกว่านั้น 8
35. คุณ (อ่าน)	โสด 1 (59) แต่งงาน 2 หย่า/แยกจากภรรยา 3
36. คุณมีรายได้จากการทำงานและการเกษตรหาสวน/ไร่อื่น ๆ รวมทั้งหมดประมาณเท่าไรต่อปี	_____ บาท/ปี (60-64)

GROUP INTERVIEWS SURVEY

No. _____ of _____ Copies

Prepared for

USAID

By

DEEMAR

· An SRG company Survey Research Group

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JANUARY 1988

INTRODUCTION

1. This report contains the findings from the Group Interviews Survey conducted in the target province of Roi-Et in Northeastern Thailand. A total of 90 groups were conducted in an area consisting of the four following districts (amphur) and relevant sub-districts (tambol).

<u>Amphur</u>	<u>Tambol</u>
Ajsamart	Nom, Nong Bua
Panom Prai	Nong Tap Thai, Na Nual
Suwannaphume	Bor Pan Kan, Hin Kong
Kaset Wisai	Lao Luang, Muang Bua

One group was conducted in each village of the target area.

NS

2. The Group Interviews Survey was accomplished through a qualitative group interview with three farmer and wife couples at each village. The group discussion guide was qualitative in nature and covered basic issues of

- monetary credit
- credit for buying goods
- official assistance and evaluation
- agricultural inputs and outputs
 - * fertilizer
 - * seeds
 - * yields
- quality of life
 - * health
 - * nutrition
 - * children
 - * information
 - * infrastructural developments

3. Each group was moderated by an experienced Deemar group interviewer who worked from a discussion guide but encouraged full and frank expression of opinion by the group participants.

4. The analytical report was compiled from transcripts of the group interviews and attempt to crystallize the feelings and views of the three couples.

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5. This report is divided into the following sections :

Introduction

I. Fertilizer

II. Seeds

III. Yields/Production

IV. Monetary Credit

V. In-Kind Credit

VI. Other Inputs and Services

VII. Quality of Life

Appendix : Group discussion guide in
English and Thai

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I. FERTILIZER

1. Fertilizer was universally used by all group participants regardless of area or type of crop grown. In accordance with the data from the Demographic Survey breakdown, the majority of participants were rice farmers and the various high yield varieties of rice were the main recipients of fertilizer use.
2. One key difference from the Demographic Survey is the dicotomy with regard to glutinous rice. This type of rice, commonly known as "sticky rice" is primarily for local consumption and not for either the domestic or export rice markets. It is the number two crop grown in the target area from the Demographic Survey data (29% stating that it is the most important crop vs 71% for high yield varieties). By contrast, little mention is made of glutinous rice when it comes to fertilizer use.
3. The rice cultivation practice with regard to glutinous versus high yield variety rice is well known : the latter needs copious irrigation demands as well as fertilizer and pesticide inputs in order to obtain the best yields while the former are local varieties adapted to growth in less than advantageous soil and water conditions. We can thus make the observation that widespread fertilizer use is a direct result of the market economy (producing produce for sale rather than for barter or direct consumption).

4. This tie-in of fertilizer use and the market economy also has support when we look at the sourcing of this input. Again, the majority of farmers obtain fertilizer from the agricultural chemicals outlet where they normally obtain other technological inputs such as pesticides. There is some mention of the Bank for Agriculture and Agricultural Cooperatives (BAAC) and this is confirmed in the In-Depth Interviews (Chart 4). From that data source we also recall that those purchasing from the BAAC tended to be the higher and middle income farmers. This is a surprising outcome given the availability of BAAC outlets in the village (30% of all villages in the target area).
5. A possible explanation is the capture of the lower income farmers (most of the population) by the private sector ag-chem outlets in a cycle of credit and produce, although this is not confirmed by the data since the majority of fertilizer purchases made were with cash. We can only hypothesize that cash payments of small ticket items of low value (such as fertilizer) are a pre-condition for credit towards high value items (pesticides).
6. That farmers are economically driven to buy at the ag-chem outlets has some circumstantial evidence when their complaints are aired. The majority have some complaints to make about fertilizer which in any other buyers' market would have made them switch sourcing : the two main complaints are the high price for fertilizer and the high incidence of "fake" (possibly low formulation) fertilizer. It is surprising that if they are not happy with both the product and the price of the fertilizer they are getting from the ag-chem outlet that they do not use the BAAC more.

"Many times we don't have the cash to buy fertilizer,...(so we do not buy)"

All respondents (Bor Pan Kan)

"I think that there is something wrong about the price because the prices are different but the formulation is the same"

(Nong Bua)

"The fertilizer formulation is too high in urea; it makes the rice plants in the seedling paddy turn red and die"

(Bor Pan Kan)

7. We also asked for their intentions on fertilizer use in the coming year and although again all will use fertilizer and for the same crops, the sourcing seems to change slightly. There is a slightly higher proportion comparatively who say they will buy from the BAAC and other local farmer marketing organizations. This again supports our previous hypothesis.

8. Cutting to the core, the last discussion item was which source they thought was best and which was worse for the supply for fertilizer. To briefly summarise, a higher proportion mentioned the BAAC/cooperatives/local marketing organizations relative to actual purchase behaviour as the best outlet for fertilizer while the local ag-chem outlet had the almost sole mention for being the worst type of outlet.

"The BAAC gives full weight of
the fertilizer"

(Lao Luang, Muang Bua, Na Nual)

"I can buy from the BAAC on credit;
I do not have to pay cash"

(Bor Pan Kan)

"(The ag-chem outlet) has fake fertilizer
and the weight is not full"

(All participants)

9. Another interesting facet of fertilizer use is the perceived effect. While all respondents from the In-Depth Interviews agreed that fertilizer usage increased yields, resulted in healthy plants, and maintained the fertility of the soil, the group participants had more insight. The discussion did not center on the effect, on which all agreed already, but rather on whether it was good value for money. On this aspect participants were divided almost equally on whether it was good value or not, and a lot depended on the individual experience with the product (problems with sourcing) and actual product performance (crops, water, and soil conditions would vary by farmer).

II. SEEDS

10. Moving on to the subject of seeds, it was apparent that for most crops grown, seeds were kept from the previous year's harvest. This result was confirmed from the In-Depth Interviews where up to 78% of respondents used previous harvest seeds.
11. Secondary sourcing of seeds was from the ag-chem outlet and agricultural extension offices. Again these results were confirmed from the In-Depth Interviews. Another secondary source not mentioned in the In-Depth Survey was the exchange of seeds with friends and relatives. This was especially common in the villages in Nong Bua and Bor Pan Kan. This leads us to suspect that farmers do search for and attempt to find the best seeds for their type of soil and farm conditions. Whether the narrow search radius is enough to provide a selection of different seeds is an area for future investigation.
12. While seeds from the ag-chem outlet need to be paid for, usually in cash, seeds from the agricultural extension office are generally free of charge.

13. There are few complaints with seeds as compared with fertilizer. One main reason is that the majority use their own seeds and thus have a good idea of the quality of the seeds and their expected yield, their advantages and weaknesses. Storage of seeds from one harvest to the next does have its own special set of problems, and farmers have some complaints about the problem of insect pests, mostly due when poor storage facilities exist.

14. On the issue of whether seeds used were good value for money, even though most were their own seeds, there was a mixed reaction. On the one hand were those who had sufficient irrigation and rainfall and other inputs to harvest a decent crop and on the other were those who suffered substantially from drought conditions. The former saw good value for money in using their seeds since a normal yield was obtained. For the latter, the poor weather conditions, especially rainfall, meant that their investment in seeds was returnless.

"The poor rainfall this year meant that most seeds we planted were destroyed"

(Lao Luang, Muang Bua, Bor Pan Kan)

15. Even though own seeds are still the primary source of seeds, the seeds available through the Agricultural Extension Office were considered superior. This result was also apparent from the In-Depth Survey along with previous harvest seeds and those available from the ag-chem outlet which received lesser mention. In the groups there was more a concensus on the Agricultural Extension Office and relatively little mention of what they currently use or the ag-chem outlet.

16. Various aspects of seed quality were mentioned with regard to these seeds from the government. Phrases such as "selected", "high quality", "real, unmixed" keep cropping up in the discussions, which lead us to suspect that this may be an image issue as opposed to a real product evaluation. Although there are different insinuations of the high quality of the seeds, there was not one specific mention of higher yields, which we would assume to be the primary proof of a good seed variety.

"The seeds are selected"
(Hin Kong, Na Nual, Muang Bua)

"They are good seeds"
(Muang Bua)

"The seeds have good weight"
(Lao Luang)

"You can get them immediately"
(Na Nual, Nong Tap Thai)

III. PRODUCTION AND YIELD

17. On the whole, discussion on production and yield for 1987 centered largely on the poor rainfall which resulted in less than satisfactory yields for most participants. In particular, those in Lao Luang, Muang Bua, and Bor Pan Kan expressed that they were very unsatisfied with current yields, being very below expectations and normal yields for the area.
18. It was interesting that even within a province, or even an area of a province (southern Roi-Et), rainfall was variable. Farmers in Nong Bua had little complaint about yields since rainfall was adequate, equal to a normal year's rainfall, and came at the right time.
19. Besides the direct mention of lack of rain, the subsequent effects of drought are also apparent.

"(Lack of rain) makes the rice not flower"

(Hin Kong)

20. Interestingly enough, the extent of the drought overshadowed a common complaint normally voiced by farmers in a normal year : low paddy prices. In 1987 a kwian of rice (1000 kgs.) was priced at about Baht 2700. which is about Baht 1000. below normal market prices. This was due to a bumper crop the previous year and the increased competition of international suppliers (notably the United States) on the rice market. This year prices have risen to about Baht 3900. a kwian, slightly higher than normal.

21. When asked what problems they faced as farmers with respect to yield and production, the problem of drought was the most discussed.

"There are not enough resevoirs to store water for our needs"

(Lao Luang)

"The rains were irregular, so causing the rice plants to dry up"

(Lao Luang, Hin Kong)

22. Insect pests seemed to be a problem in certain areas, such as Na Nual, which experienced a high mention of stemborers. Other than this specific mention, insects were rarely emphasized in light of the more serious problem of water shortage.

23. It was noteworthy that even in this time of extreme need farmers received no governmental assistance to help alleviate water shortage conditions. Granted, and to be fair to the government's development policy, emergency aid is not easily obtained from a bureaucracy, but the weight which farmers felt that they were neglected in this time of need was evident.

"We received no help from the government
at all"

(All participants)

24. Some mention of governmental assistance was made, but it did not relate to the drought problem. These were the standard agricultural extension promotions of free seeds, fertilizer, and pesticides.
25. Talking now in more general terms, and trying to abstract from the reality of drought conditions, it was apparent that the most important input, *ceteris paribus*, was fertilizer. Use of pesticides is only a preventive or prophylactic treatment, but fertilizer use directly affects growth of plants and their subsequent production value. Given that all agree on the importance of fertilizer in increasing yield, it is still surprising from the previous discussion on fertilizer that they are still very dissatisfied with the quality they are getting, the price, and the perceived weight loss (cheating).

26. This would seem to be an ideal opportunity for the National Fertilizer Corporation (a state enterprise) to market its own fertilizer through agricultural extension networks to farmers. They already have a positioning advantage in that fertilizer from government sources is perceived to be better in quality, fair in price, and full weight.
27. This reader also sees the potential for local farmer organizations to undertake cooperative action on fertilizer production. Farmers do not specifically mention chemical fertilizer any more than they do natural fertilizer, so this would be an opportunity for small-scale, self-sufficient fertilizer production or re-cycling or animal waste.

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IV. MONETARY CREDIT

28. Most farmers found it hard to make ends meet and the need to borrow money was a fact of life. The BAAC was the most mentioned source of funds. Second was from informal sources, primarily friends and relatives or other villagers. It is clear that these informal sources are not established credit sources since they are not referred to as such. In cases where farmers were forced to get money from a money lender, the source was referred to as the local "old man" or the local "capitalist".
29. Borrowed cash was used almost exclusively for the purchase of agricultural inputs. These could be variable inputs; the main one was fertilizer but hired labor for the fields and pesticides were also mentioned. Or they could be investment items such as oxen and buffalo or agricultural machinery.
30. The high mention of fertilizer purchases leads us to suspect that the cycle of credit from the ag-chem outlet is not as pervasive as originally thought. It is now more likely that fertilizer is not a credit item but a cash item and farmers have to obtain cash from another source in order to buy this fertilizer. This other source for small loans is either the BAAC or local sourcing.
31. Only in a minimal of instances when extreme poverty affected the marginal farmer was monetary credit used to buy food or consumables for use by the family.

32. Monetary credit is a pervasive activity in the sense that all participants who had borrowed money in the form of short term loans for agriculture were prepared to do so in the current year. In fact the majority had either already secured a loan from the BAAC for the current year or had made plans to do so. In Hin Kong, only 2 farmer couples out of 24 had not made any loans for the current year.
33. The BAAC is the source of credit of choice and it is possibly due to its targeting towards farmers in particular as we have seen in previous analysis. It is also that they have a monopoly situation in the villages. Most participants are not aware of other sources from which they might obtain a loan. There is almost no mention of commercial banks and no loans were forthcoming for any of the participants from commercial banks. Awareness of commercial banks seems to be from advertising and image building on the part of commercial banks rather than any actual increase in loans to small farmers. (Note : In the past 1-2 years with the high liquidity position of the commercial banks and falling interest rates has come substantial television advertising from the major commercial banks (eg. Bangkok Bank, Thai Military Bank) showing their commitment to loans to small farmers.)
34. Given farmers experience with only the BAAC it is difficult to expect an unbiased view and it is not surprising that most farmers feel that the BAAC is the best source of loans. They do give this affirmative opinion with some conviction so it is possible that the BAAC is doing a superb job.

35. Main reasons for preference for the BAAC are because of the low interest rates and the acceptable payment terms, with the former receiving universal mention.

"Their interest rates are low"

(All participants)

36. In addition there was no outright mention of any problems in getting the loan. This contrasts sharply with our findings from the In-Depth Interviews (Chart 2) where over half of respondents had some complaints to make about loan procedures. These included long travel times, special requirements, and general red tape. We surmise that since the BAAC is really the only source, farmers are reluctant in a group situation to voice any complaints for fear of being the black sheep and possibly having their complaints relayed back to the local BAAC office, which may or may not have an effect on future loan applications.
37. By contrast, the worse source for loans even if loans were not actually gotten there was the local money lender. Interest rates were high from this source and payment terms were short and inflexible.

V. IN-KIND CREDIT

38. In-kind credit or buying goods on credit is less common among farmers. While monetary credit is used almost exclusively for agricultural inputs, in-kind credit is a relative mix between inputs, primarily fertilizer, and consumer household items. The most mentioned item is mosquito netting, but other durable items such as clothing, furniture, water storage jars, and fishing nets are also mentioned.
39. Another important difference between monetary and in-kind credit is the sourcing. While for the former the BAAC is the preferred and the only choice, for the latter there is no shop or outlet serving as the normal credit outlet. Credit is arranged at the outlet supplying the goods in question.
- "Where we get credit depends on the type of
goods we are buying"
- (Bor Pan Kan, Nong Bua)
40. Since in-kind credit is not a planned part of the budget, unlike monetary credit from the BAAC, most farmers do not plan for it but arrange it depending on the need. Only when a purchase decision for a particular consumer product is made will a conscious decision to obtain credit be made.

41. Generally credit terms are unfavorable, with high interest rates that result in a higher overall price than they would have had to pay by cash.

"The (traders) take advantage of us and charge higher prices (than should be)"

(Lao Luang)

42. Although we said that no conscious decision to get in-kind credit is normally made, there is one exception to this and this is in-kind credit for agricultural inputs such as fertilizer, pesticides, and other major items (eg. cement).

43. As previously explained, almost all outlets offer some sort of credit scheme for the purchase of goods. Generally the normal retail outlet is not the ideal outlet to get credit because of its commercial nature. Villagers voice the desirability of having the BAAC as a real cooperative where they could get major goods (agricultural inputs and consumer durables on credit as well as monetary credit.

"The BAAC would be the best place to buy goods on credit because they can give us lower interest rates and because they know and trust us"

(Nong Tap Thai)

44. Again the opportunity for the BAAC to expand its activities to include providing a limited repertoire of goods to farmers on credit presents itself. One could almost see the setting up of a kind of overdraft facility for farmers who qualify.

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VI. OTHER INPUTS AND SERVICES

45. When asked to comment on other inputs which play a part in their crop cultivation, farmers are generally unimaginative, finding it difficult to think of inputs other than fertilizer, pesticides, and agricultural machinery. Credit, whether monetary or in-kind, was purely a means to obtaining these inputs and could not be in their own right an input.
46. Sourcing of these inputs has been in accordance with our previous discussions, and no new information was derived on alternative sourcing.
47. All agree unanimously that use of these inputs, primarily fertilizer and pesticides, help increase yields. The actual margin by which yields were increased would depend on other factors such as existing soil conditions and rainfall.
48. Usage of pesticides did have side effects, but most participants considered them minor. These included dizziness, some vomiting, general tiredness, and some allergic reactions to usage of pesticides. Of concern also was the effect on smaller life forms such as fish in the paddy, which play an important part in the nutrition of villagers.

49. On other services which were inputs to agriculture, about half of farmers mentioned help and advice from the district or sub-district agricultural officer. It is also apparent from discussions that the level of commitment by the agricultural officer depends crucially on the person.

"Our sub-district officer has helped us a lot with his advice and his training"

(Lao Luang)

"Our district officer's always visiting and giving us helpful recommendations"

(Muang Bua)

50. In other sub-districts, the agricultural officers show indifference to the plight of farmers and other, more committed individuals rise to take the role. In Nong Bua, the head of the local tobacco curing plant took an active role in visiting farmers and giving them advice on the better cultivation of tobacco. Admittedly he had a vested interest in doing so, but his expertise in tobacco also had effects on villagers' cultivation of other crops.

51. Other informal sources were also experienced. These included the special interest groups such as the working groups to improve soil fertility in areas with high salinity as well as the mass media.

"Radio programs on agriculture have also been helpful to us"

(Muang Bua)

VII. QUALITY OF LIFE

52. In this section on quality of life, group participants discussed various changes which they felt had improved their life in the village. Although there was a variety of improvements which had an impact on village life, structural developments were the most mentioned, primarily electricity and roads. The former brought village life into the 20th Century with the advent of various electrical goods and entertainment. Television in its own right was mentioned by quite a number of couples in its role in providing leisure activity as well as its role in communication by keeping villagers in touch with domestic as well as international issues.

53. There was also mention of various public health developments such as family planning (mentioned by the women), nutrition (again mention by women), sanitation, the water storage jar program, public toilets, and public water supplies.

"Piped water has been important in our village"

(Nong Tap Thai)

54. Besides these infrastructural developments, employment creation programs and high value-added programs were also mentioned. These were seen as having a direct impact on village income by providing alternative and additional income.

"Silkworm raising has been taught in our village and many of us now raise silkworms"

(Lao Luang)

55. Although various improvements were mentioned and there were some differences by sex as mentioned above, both farmers and their wives agree that the key improvements were the introduction of electricity, the building of roadways, and the various aspects of water and irrigation (storage jars, irrigation, canals).
56. These key improvements were the stepping stone for other developments in village life. Television was already mentioned in conjunction with electricity. For roadways they was also mention of more pickups, motorcycles, and cars in the village with the better transportation and communication facilities.
57. On the negative side there was complete agreement that although manmade developments had steadily advanced, nature was not as willing. It was noted that in the past 5-10 years rainfall had been both less and more irregular. These led to more variable yields, less yield in some years, and greater difficulty in making a livelihood from farming.

"No rainfall has been the greatest problem in the past 5-10 years for us"

(Muang Bua, Na Nual)

58. This duality between manmade improvements and nature's indifference made evaluation of nutrition a difficult subject to reach agreement on. On the one hand the lack of rain made for poor crop harvests and hence a depressed economic situation and lower incomes of farmers. On the other hand, development of roads and communications brought the village into the distributional fold of more and more consumer markets. The majority did agree, however, that the improvements in nutrition far outweighed the current difficulties.

"It's hard to make a living and food is hard to find"

(Lao Luang, Bor Pan Kan)

"If you have money, you can eat well"

(Bor Pan Kan)

"Food is easier to find and buy. There are more shops and markets"

(Hin Kong, Nong Bua)

59. On the positive side, increased awareness of nutritional issues made for a better diet.

"What we are eating now is better in terms of its nutritional value"

(Hin Kong)

60. Health, on the other hand, was uniformly perceived as having improved. There were more health centers nearer the villages (new ones as well as the old ones being easier to get to because of roadways) and there were qualified doctors staffing local health centers and hospitals.
61. Besides the medical side which can be looked at as preventive health care, prophylactic health care had also improved. This largely took the form of visits by the local health officer and recommendations on taking better care of one's health, the prevention of diseases, sanitation, and nutrition.
62. The better network of health centers also meant that more drugs were available. These were also distributed among the villagers by mobile health teams from the health office and from the health center.
63. Included in health care was better family planning advice as well as infant care.

"(The visiting nurses) also give us
advice on supplementary foods to give
our babies and children"

(Muang Bua)

64. This led to discussion of the nutrition and health of the younger generation and here there was no question that children were growing up in a better, healthier environment. All previous mention on nutrition and health care made it apparent that a lot of attention was focused on making villagers' children brought up healthy and well. The whole emphasis on children was not limited to only these two areas but extended to various other areas as well.

"The school has a lunch program that provides the children with a nutritious lunch (better than what he/she would eat at home)"

(Nong Bua)

"There are vaccination programs for the children so that they do not get serious diseases"

(Hin Kong, Bor Pan Kan, Nong Bua)

65. The overall prosperity of villagers could also be discerned from material possessions.

"You can see that villagers are better off by their (larger) houses"

(Nom)

66. Increases in consumer durables such as radios and televisions were the most mentioned. There was also advance in other communication forms, with most villages having some sort of reading area or commons which had daily newspapers.
67. Increased prosperity in terms of agriculture was also mentioned in terms of greater hectarage being farmed by villagers and the increase in livestock owned by villagers.
68. To sum up, even though there were hardships associated with village farm life in the target areas, by all quality of life indications and in villagers' own assessment, life in the village of today is greatly preferable and better than in the village of 5-10 years ago.

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I. INTRODUCTION

Welcome and thank respondents

Explain about Deemar Company:

- a marketing research company
- methods of survey research
- independence of Deemar, please feel free to give your opinion

II. 1. FERTILIZER

- Did you use it on any of your crops last year?
- On what crops did you use it?
- Where do you normally buy it?
- How did you pay for it?
- Do you have any problem with fertilizer?
(Probe about usage, procurement or payment)
- Did the fertilizer have any effect on your farming, crops or households?
- Was it worth what you had to pay for it?

II. 2. SEEDS

- What kinds of seeds did you use last year?
- Where did you normally buy your seeds?
- How did you pay for your seeds?
- Did you have any problem with the seeds you used?
- Did your crops that you got from using these seeds have good value for money?
- What kinds of seeds are you going to use/have you used this year?
- Where will/did you get these seeds?
- Which other sources do you know of, where you can get seeds?
- Which one is your best source, why?
- Which one is your worse source, why?

II. 3. PRODUCTION/YIELD

- How satisfied are you with your last year's yield?
- Did you have any problems about growing crops last year?
- Did you receive any assistance from any official sources?
- What factors, do you think, have an effect on increase of your yield?
- This year, how much yield will you expect for each crop? Why?
- Do you plan to use fertilizer on your crops this year?
- On what crops do you plan to use it?
- Where will you get it?
- Other than the sources you normally buy from, do you know of any other sources where you can get fertilizer?
- Which one is the best source? Why?
- Which one is the worse source? Why?

III. 1. MONETARY CREDIT

Farming is so expensive these days that many people have to borrow money or purchase supplies on credit in order to get what they need. Now we are going to talk about what you do when you need extra money (cash).

- Last year, when you needed money (cash), from what source did you get it.?
- If you borrowed money, for what purposes did you borrow it?
- Have you ever borrowed money from a bank or any other official source?
- If yes, were there any problems you encountered?
probe about: location, time consuming, payment terms, service, corruption, requirement.
- What was the most difficult problem you encountered?
- All things considered, do you think borrowing money from this official source was worth the effort? Why?
- Have you had any difficulty repaying the loan on time? Why?
- This year do you plan or have you borrowed any money from any source?
- From what source?
- For what purposes will you/did you borrow money?

- Is this source the same as last year?
- If: different, why did you change from the previous source?
- What are all the sources you know of, both official and unofficial, where you can borrow money?
- Which one do you consider the best source? Why?
- Which one do you consider the worst source? Why?

III. 2 IN-KIND CREDIT

Besides money, sometimes farmers can get credit for supplies and other things from various sources. Now I would like to ask you about getting supplies on credit. (Emphasize that we are not talking about money or cash)

- Last year, did you get any supplies, agricultural or others on credit?
- What type of supplies did you get on credit?
- Do you have a regular source for supplies on credit or do they differ depending on the supplies?
- What is (are) that source(s)?
- For each supplies type, were you generally satisfied or not satisfied with what you got? Any problems?
- This year do you plan to get any supplies on credit or have you got any supplies on credit?
- What type of supplies do you plan to get on credit?
- Do you have a regular source for supplies on credit or do they differ depending on the supplies?
- What is(are) that source(s)?
- What are all the sources you know of where you can obtain supplies (of any kind) on credit?
- Which one do you consider the best source? Why?
- Which one do you consider the worst source? Why?

IV. OTHER INPUTS AND SERVICES

- What other inputs are important for you besides credit, money and fertilizers?
- Which inputs are you using this year?
- Which inputs did you use last year?
- What is your usual supply source for these inputs?
(specify for each input)
- Do you think that usage of these inputs such as herbicides and insecticides have helped you improve yields?
- Have you ever encountered any problems with supply or usage of these other inputs?
- Can you give me an example of the kind of problem you encountered?
- Have you got any assistance from anyone in the form of technical knowledge or advice?
- From whom did you get this?
- If mentioned "Gov't Official", how useful was this assistance?

V. QUALITY OF LIFE SECTION

In this next section, I will be addressing the women in the group, but you men feel free to give your opinions and answers also. We will be talking generally about your life in the village and how it has changed in the past 5-10 years, be it change for the better or change for the worse.

- Thinking of everything that has happened in the past 5-10 years, what do you think has had the biggest effect on life in the village on the positive side, i.e. that has made living here better?
- Is there anything else? (Record up to 3 items)
- Do you men agree with the above three factors?,
If not, what would be your 3 choices?
- Now to look at the other side, has anything happened in the past 5-10 years which you think has made life in the village not as good as it used to be?
- Anything else? (Record up to 3 items)
- Do you men agree? If not, what are your views?

- Let's talk now about nutrition, do you think that people in the village are eating better than they were in 5-10 years ago?
- Why do you say that?
- What about the health of villagers, adults as well as children, how has this changed in the past 5-10 years?
- Why do you say that?
- Talking now specifically about the health and nutrition of children in the village compared to 5-10 years ago, do you think children growing up now are healthier than before?
- Have there been any health problems that have come about from the more intensive use of pesticides in farming?
- Talking now about public utilities, compared with 5-10 years ago, do you now have
 - electricity?
 - better water supply?
 - better roads to the village?
- In terms of material possessions, do you think people in the village are better off?
- What things do people have more of now than they had about 5-10 years ago? (such as motor car, pickup truck, motorcycle, bicycle, television, radio, refrigerator, sewing machine)
- Would you say that people are better informed about events outside the village than they were 5-10 years ago?
- How about on the monetary side, do you feel that you have more money to spend than you did 5-10 years ago?
- Given all the things we've talked about, would you change your answers to the first 2 questions (repeat if necessary) in any way?
- Have you heard of any of these programs? (awareness)
 - (list of programs by AID, other donors, and government)

I. บทนำ

- ก. กล่าวต้อนรับ และแนะนำตัว
- ข. อธิบายเกี่ยวกับ ดีมาร์
 - บริษัทวิจัยตลาด
 - วิธีการต่าง ๆ ของการหาวิจัย
 - ความเป็นอิสระของบริษัท
- ค. ขออนุญาตบันทึกเทป ภาณุพุดตั้ง ๆ และทีละคน

II.1. บัญ

- บัญแล้วคุณชื่อบัญ หรือเปล่าคะ
- ำกับพืชผลอะไรบ้างคะ
- ปกติ คุณซื้อบุนท์ที่ไหนคะ
- คุณจ่ายเงินค่าบุนท์อย่างไรคะ
- คุณประสบปัญหาอะไรเกี่ยวกับบุนท์บ้างไหมคะ
(ชักเกี่ยวกับ การำชื่อบุนท์ การจัดหำบุนท์ การซื้อบุนท์)
- บุนท์มีผลกระทบต่อพืชผล, การหำนา หรือครอบครัวของคุณหรือไม่ อย่างไรคะ
- การซื้อบุนท์มาชื่อบุนท์นี้ ค่ำค่าการลงทุนไหมคะ เมื่อเปรียบเทียบกับผลที่ได้อรับ
- บุนท์นี้ คุณคิดจะำชื่อบุนท์กับพืชผลของคุณไหมคะ
- พืชผลอะไรบ้างคะ
- คุณคิดว่า คุณจะได้บุนท์มาจากที่ไหนบ้างคะ
- นอกจากแหล่งที่คุณไปซื้อบุนท์เป็นประจำแล้ว คุณรู้จักแหล่งใดอีกบ้างคะ ที่คุณสามารถจะซื้อ/ได้อรับบุนท์
- แหล่งใดคะ ที่คุณคิดว่าเป็นแหล่งที่ดีที่สุด เพราะอะไรคะ
- แหล่งใดคะ ที่คุณคิดว่าเป็นแหล่งแย่อที่สุด เพราะอะไรคะ

II.2. เมล็ดพันธุ์

- บัญแล้ว คุณชื่อบุนท์เมล็ดพันธุ์อะไรบ้างคะ
- ปกติ คุณซื้อเมล็ดพันธุ์ จากที่ไหนคะ
- คุณจ่ายเงินค่าเมล็ดพันธุ์ อย่างไรคะ
- คุณประสบปัญหาอะไรบ้างคะ เกี่ยวกับเมล็ดพันธุ์ที่ำชื่อบุนท์
- พืชผลที่ได้จากการำชื่อบุนท์นี้ ค่ำค่ากับการลงทุนไหมคะ
- บุนท์นี้ คุณคิดว่า คุณจะได้เมล็ดพันธุ์อะไรบ้างคะ
- คุณคิดว่า คุณจะได้เมล็ดพันธุ์จากที่ไหนบ้างคะ
- นอกจากแหล่งที่คุณซื้อเมล็ดพันธุ์เป็นประจำแล้ว คุณรู้จักแหล่งที่คุณจะได้รับ/ซื้อเมล็ดพันธุ์ต่าง ๆ แหล่งใดอีกบ้างคะ

- คุณคิดว่า แหล่งใดดีที่สุดเพราะอะไรคะ
- คุณคิดว่า แหล่งใดแย่ที่สุดเพราะอะไรคะ

II3. ผลผลิต

- ปีที่แล้ว ผลผลิตจากการเพาะปลูกของคุณ น่าพอใจ หรือไม่ เพราะอะไรคะ
- คุณประสบปัญหาอะไรบ้างคะ ในการเพาะปลูกในปีที่แล้ว
- คุณได้รับความช่วยเหลืออะไรบ้างหรือเปล่าคะ (เช่น จากทางการ)
- ปัจจัยที่มีส่วนสำคัญในการทำให้ผลผลิตของคุณสูงขึ้น มีอะไรบ้างคะ
- ปีนี้ คุณคาดว่า ผลผลิตจากการเพาะปลูกของคุณจะเป็นอย่างไรคะ (ถามแต่ละพืชผล) เมื่อเปรียบเทียบกับปีที่แล้ว
- เพราะอะไรคะ

III1. เงินกู้

การทำงานปัจจุบันต้องใช้จ่ายเงินมาก ชาวนาต้องขอกู้เงินหรือซื้อสินค้าเป็นเงินเชื่อ เพื่อที่จะสามารถทำงานได้ ต่อไปนี้เราจะพูดคุยกันเกี่ยวกับเรื่องของการขอกู้ยืมเงินสด ว่าคุณมีวิธีการอย่างไรบ้างคะ

- ปีที่แล้ว เมื่อคุณต้องการเงินสด คุณขอกู้จากแหล่งใดบ้างคะ
- คุณกู้เงินสด เพื่อไปใช้จ่ายอะไรคะ
- คุณเคยกู้เงินสดจากธนาคาร หรือหน่วยงานของรัฐหรือไม่คะ
- ถ้าเคย, คุณประสบปัญหาอะไรบ้างไหมคะ

ขัก สถานที่ตั้งของธนาคาร/หน่วยงานของรัฐ, ระยะเวลาที่ใช้ในการติดต่อ, วิธีการผ่อนชำระ, การบริการ, การคอร์รัปชั่น, ข้อกำหนดต่าง ๆ

- คุณคิดว่า ปัญหาใดเป็นปัญหาที่ยากที่สุดคะ
- พิจารณาโดยรวม ๆ แล้ว คุณคิดว่า การขอกู้เงินจากหน่วยงานของรัฐ ค่อนข้างใหม่ไหมคะ เพราะอะไรคะ
- คุณประสบปัญหาในการผ่อนชำระเงินกู้บ้างไหมคะ เพราะอะไรคะ
- ปีนี้ คุณวางแผนที่จะกู้/ได้กู้เงินบ้างหรือเปล่าคะ
- จะกู้/ได้กู้เงินจากแหล่งใดบ้างคะ
- จะกู้/ได้กู้เพื่อไปใช้จ่ายอะไรคะ
- เป็นแหล่งกู้ แหล่งเดียวกับกับปีที่แล้วหรือเปล่าคะ
- ถ้าไม่ซ้ำแหล่งกู้เดิม, เพราะอะไรคะจึงเปลี่ยนแหล่งเงินกู้จากปีที่แล้ว
- คุณรู้จักแหล่งเงินกู้ที่ใดอีกบ้างคะ ทั้งของรัฐและของเอกชน
- แหล่งเงินกู้ใดดีที่สุดเพราะอะไรคะ
- แหล่งเงินกู้ใดแย่ที่สุดเพราะอะไรคะ

III2. ซื้อสินค้าเงินเชื่อ

นอกจากเงินสดแล้ว ชาวนายยังสามารถซื้อสิ่งของเป็นเงินเชื่อได้จากแหล่งต่าง ๆ ต่อไปนี้เราจะคุยกันถึงการซื้อของเป็นเงินเชื่อ

- ปีที่แล้ว คุณซื้อสิ่งของเกี่ยวกับเกษตรกรรม หรืออื่น ๆ เป็นเงินเชื่อหรือเปล่าคะ
- คุณซื้ออะไรเป็นเงินเชื่อบ้างคะ
- คุณมีแหล่งที่ขายสินค้าเป็นเงินเชื่อ ที่คุณติดต่อยู่ประจำหรือเปล่าคะ หรือคุณจะติดต่อกับแหล่ง ๆ ใด ขึ้นอยู่กับว่าเป็นสินค้าอะไร
- แหล่งใดบ้างคะ
- สำหรับแต่ละสินค้า โดยทั่วไป คุณจะพอใจหรือไม่พอใจกับสิ่งที่คุณได้รับคะ , มีปัญหาอะไรบ้างคะ
- ปีนี้ คุณวางแผนที่จะซื้อสินค้าเงินเชื่อ/ได้ซื้อสินค้าเงินเชื่อ บ้างหรือเปล่าคะ
- คุณคิดที่จะซื้อสินค้าอะไรเป็นเงินเชื่อบ้างคะ
- เป็นแหล่งขายสินค้าเงินเชื่อที่คุณติดต่อยู่ประจำหรือเปล่าคะ หรือคุณจะติดต่อกับแหล่ง ๆ ใด ขึ้นอยู่กับว่าเป็นสินค้าอะไร
- แหล่งใดบ้างคะ
- คุณรู้จักแหล่งที่ขายสินค้าเงินเชื่อ แหล่งใดบ้างคะ
- แหล่งเงินเชื่อใดดีที่สุดคะ เพราะอะไรคะ
- แหล่งเงินเชื่อใดแย่ที่สุดคะ เพราะอะไรคะ

IV. ปัจจัยอื่น ๆ และบริการ

- นอกจากสินค้าเงินเชื่อ เงินกู้ และบ่อนแล้ว คุณคิดว่ามีปัจจัยที่สำคัญอะไรอีกบ้างคะ
- ปีนี้ คุณกำลังใช้ปัจจัย/ผลิตภัณฑ์อะไรบ้างคะ
- ปีที่แล้ว คุณใช้ผลิตภัณฑ์อะไรบ้างคะ
- ปกติแล้ว คุณซื้อ/ได้รับผลิตภัณฑ์จากแหล่งใดบ้างคะ (เจาะจงสำหรับแต่ละผลิตภัณฑ์)
- คุณคิดว่าบริการผลิตภัณฑ์เหล่านี้ เช่น ยาปราบวัชพืช และยาฆ่าแมลง ช่วยปรับปรุงพืชผลหรือเปล่าคะ
- คุณเคยประสบปัญหาเกี่ยวกับบริการผลิตภัณฑ์เหล่านี้ เช่น ยาปราบวัชพืช และยาฆ่าแมลง หรือผลิตภัณฑ์อื่น ๆ ไหมคะ
- คุณทราบยกตัวอย่าง ปัญหาที่เกิดขึ้นบ่อยๆคะ
- คุณได้รับความช่วยเหลือ/คำแนะนำเกี่ยวกับ ความรู้ด้านเทคนิคบ้างหรือเปล่าคะ
- จากใครคะ
- ถ้าเอ่ยถึง "จากทางราชการ" ตาม, คุณคิดว่าความช่วยเหลืออันนี้ เป็นประโยชน์มากน้อยแค่ไหนคะ

V. คุณภาพชีวิต

ในส่วนนี้ ดิฉันจะขอกถามความคิดเห็นของคุณผู้หญิงก่อนนะคะ แต่คุณผู้ชายก็ช่วยตอบได้นะคะ

เราจะคุยกันถึงเรื่องทั่วไปเกี่ยวกับชีวิตในหมู่บ้าน ว่ามีการเปลี่ยนแปลงมากน้อยแค่ไหนในช่วง 5-10 ปี ที่ผ่านมา และเปลี่ยนแปลงในทางที่ดีขึ้น หรือแย่ลง

- การเดินทางถึงสิ่งต่าง ๆ ที่เกิดขึ้นในช่วง 5-10 ปีที่ผ่านมา คุณคิดว่าสิ่งใดบ้างคะ ที่มีผลกระทบมากที่สุดกับชีวิตความเป็นอยู่ในหมู่บ้านในด้านที่ดี เช่น ทำให้ชีวิตความเป็นอยู่ในหมู่บ้านดีขึ้น
- มีอะไรอีกบ้างคะ (บันทึก 3 อย่าง)
- คุณผู้ชาย รู้สึกเห็นด้วยหรือไม่กับ 3 เรื่องที่คุณผู้หญิงตอบมาคะ คุณคิดว่า 3 เรื่องนั้น ควรจะเป็นเรื่องใดบ้างคะ
- ในช่วง 5-10 ปีที่ผ่านมา คุณคิดว่ามีสิ่งใดบ้างคะ ที่ทำให้ชีวิตความเป็นอยู่ในหมู่บ้านแย่ลงกว่าที่เคยเป็นมา
- คุณผู้ชายล่ะคะ รู้สึกเห็นด้วยหรือไม่กับ 3 เรื่องที่คุณผู้หญิงตอบมาคะ คุณคิดว่า 3 เรื่องนั้นควรจะเป็นเรื่องใดบ้างคะ
- เกี่ยวกับโภชนาการ/อาหาร คุณคิดว่าปัจจุบันนี้ มีการบริโภคอาหารดีขึ้นหรือไม่คะ เมื่อเปรียบเทียบกับช่วง 5-10 ปีที่ผ่านมา เพราะอะไรคะ
- เกี่ยวกับเรื่องสุขภาพของคนในหมู่บ้านปัจจุบันนี้ ไม่ว่าจะเป็นผู้ใหญ่หรือเด็ก คุณคิดว่ามีการเปลี่ยนแปลงดีขึ้นหรือไม่คะ ในช่วง 5-10 ปีที่ผ่านมา เพราะอะไรคะ
- พูดถึงสุขภาพและโภชนาการ/การบริโภคอาหารของเด็ก ๆ ในหมู่บ้านปัจจุบันนี้ เปรียบเทียบกับเมื่อ 5-10 ปีที่ผ่านมา คุณคิดว่าเด็ก ๆ ในปัจจุบันนี้ มีสุขภาพดีขึ้นกว่าเดิมหรือไม่คะ เพราะอะไรคะ
- มีปัญหาด้านสุขภาพที่เกิดขึ้นเนื่องจากการใช้ยาปราบศัตรูพืชกันมากในการทำนา บ้างหรือเปล่านั้น ปัญหาอะไรบ้างคะ
- พูดถึงสาธารณสุขโรค ปัจจุบันนี้เป็นอย่างไรบ้างคะ เมื่อเปรียบเทียบกับช่วง 5-10 ปีที่ผ่านมา
- ปัจจุบันคนในหมู่บ้าน มีฐานะดีขึ้นหรือไม่คะ สืบเนื่องจากอะไรคะ
- ทรัพย์สินที่คนในหมู่บ้าน เป็นเจ้าของกันมากขึ้น มีอะไรบ้างคะ
- คนในหมู่บ้านทราบเหตุการณ์/เรื่องราวที่เกิดขึ้นนอกหมู่บ้านมากขึ้นหรือไม่คะ เมื่อเปรียบเทียบกับ 5-10 ปีที่ผ่านมา เพราะอะไร
- ในด้านการเงินล่ะคะ คุณรู้สึกว่า ตัวคุณเองมีเงินที่จะใช้จ่ายจะช้อยมากขึ้นกว่าเดิม 5-10 ปีที่ผ่านมาหรือไม่คะ
- เมื่อพิจารณาถึงทุกอย่างที่เราได้คุยกันไป คุณคิดว่าสิ่งที่ทำให้ชีวิตคนในหมู่บ้านเปลี่ยนแปลงไปในทางที่ดีขึ้น ยังคงเหมือนเดิมไหมคะ (ที่ตอบในตอนต้น)
- ถ้าไม่เหมือนเดิม, เปลี่ยนเป็นอะไรคะ
- เช่นเดียวกัน คุณคิดว่าสิ่งที่ทำให้ชีวิตคนในหมู่บ้านเปลี่ยนแปลงไปในทางที่แย่ลง ยังคงเหมือนเดิมไหมคะ (ที่ตอบในตอนต้น)
- ถ้าไม่เหมือนเดิม, เปลี่ยนเป็นอะไรคะ
- คุณเคยได้ยิน รายการเหล่านี้ ไหมคะ (ชื่อรายการ)

2530

D. INDIVIDUAL INTERVIEWS SURVEY

INDIVIDUAL INTERVIEWS SURVEY

No. 2 of 6 Copies

Prepared for

USAID

By



DEEMAR

29/5 Sol Saladaeng 1
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A Member Of The Survey Research Group

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INTRODUCTION

1. This report contains the findings from the Individual Interviews Survey conducted in the target province of Roi-Et in Northeastern Thailand. A total of 90 respondent couples were interviewed in an area consisting of the four following districts (amphur) and relevant sub-districts (tambol).

Amphur -----	Tambol -----
Ajsamart	Nom, Nong Bua
Panom Prai	Nong Tap Thai, Na Nual
Suwannaphume	Bor Pan Kan, Hin Kong
Kaset Wisai	Lao Luang, Muang Bua

2. The Individual Interviews Survey was accomplished through a face-to-face personal interview with the farmer and wife couple at each village. The questionnaire was quantitative in nature and covered basic issues of
- monetary credit
 - credit for buying goods
 - official assistance and evaluation
 - agricultural inputs and outputs
 - * fertilizer
 - * seeds
 - * yields
 - quality of life
 - * health
 - * nutrition
 - * children
 - * information
 - * infrastructural developments
3. Interviewers were recruited from Deemar's pool of trained interviewers who have experience in conducting interviews of this nature. In the field they worked under full time field supervisors who backchecked or personally witnessed a minimum of 15% of all interviews to ensure the highest standards of quality control.
4. All questionnaires were edited and coded by Deemar's Data Processing Department. Tabulations were prepared using Merlin software on Prime hardware.

5. The report is divided into the following sections :

Introduction

I Management Summary

II Computer Tabulations

Appendix : English and Thai questionnaires.

MANAGEMENT SUMMARY

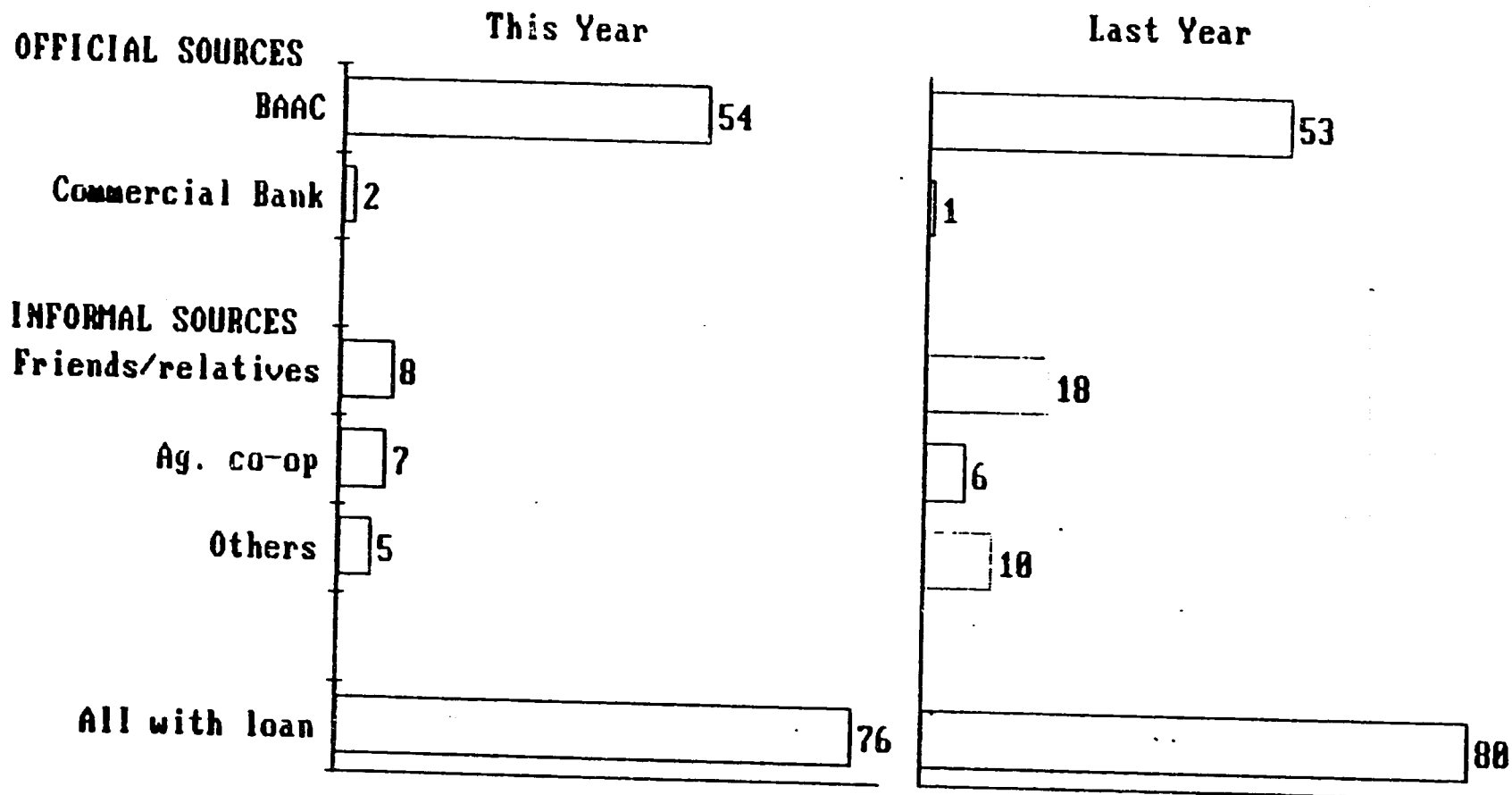
MONETARY LOAN SOURCES

(Chart 1)

1. Loans were made by a consistent proportion of the in-depth respondents : 80% in 1986 and 76% in 1987. There is a clear correlation in the incidence of loans and the district of interview, with low loan incidences in Ajsamart (53%) and Panom Prai (76%) and high loan incidences in Suwannaphume (86%) and Kaset Wisai (96%). We will see further on that this is directly related to economic performance of the district as well as geographical factors such as the extent to which water supply problems persist in those districts.
2. Of loans made, about two-thirds came from formal or official sources, with the BAAC (Bank for Agriculture and Agricultural Cooperatives) accounting for the main sourcing of these loans. Commercial banks accounted for only an additional 1-2% of all monetary loans.
3. Informal sources accounted for an additional third of loans, coming primarily from friends and relatives (18% in 1986), the local agricultural cooperative (7%) and other sources.
4. Among those respondents not borrowing money from official sources it is illustrative to note that 24% stated that they did not have collateral needed to borrow money and a further 10% were unaware of the procedures in contacting an official source to obtain a loan (T.2).

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CHART 1: MONETARY LOAN SOURCES



Base: All respondents (90)

Ref: Ts. 1,5

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EVALUATION OF OFFICIAL LOAN SOURCES

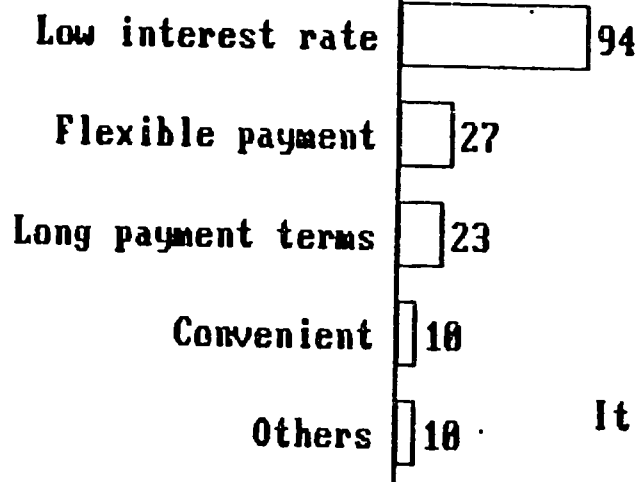
(Chart 2)

5. Among those borrowing from official sources many had also borrowed from informal sources as well. However, all agreed unanimously that official sources were the better source. The principal reason was the lower interest rates (94%), as well as the more flexible payment terms (27%), and the longer payment terms (23%).
6. This is not to imply that no problems were encountered in obtaining a loan from an official source. The main problems mentioned were the necessity of a long trip to the local BAAC office (41%) and the necessity of multiple trips (27%). On the application side, special requirements or collateral (41%) were needed to apply for a loan and in general an inordinate amount of paperwork was also needed (16%).
7. Once the loan application was complete, there was also dissatisfaction with the amount of time needed to process the loan (27%), the amount of the loan that was approved (18%), the ill treatment that villagers sometimes received (12%).
8. The amount of loans received was high, with half of all loans falling between Baht 5000 to 9999. This would account for approximately their total annual monetary income.

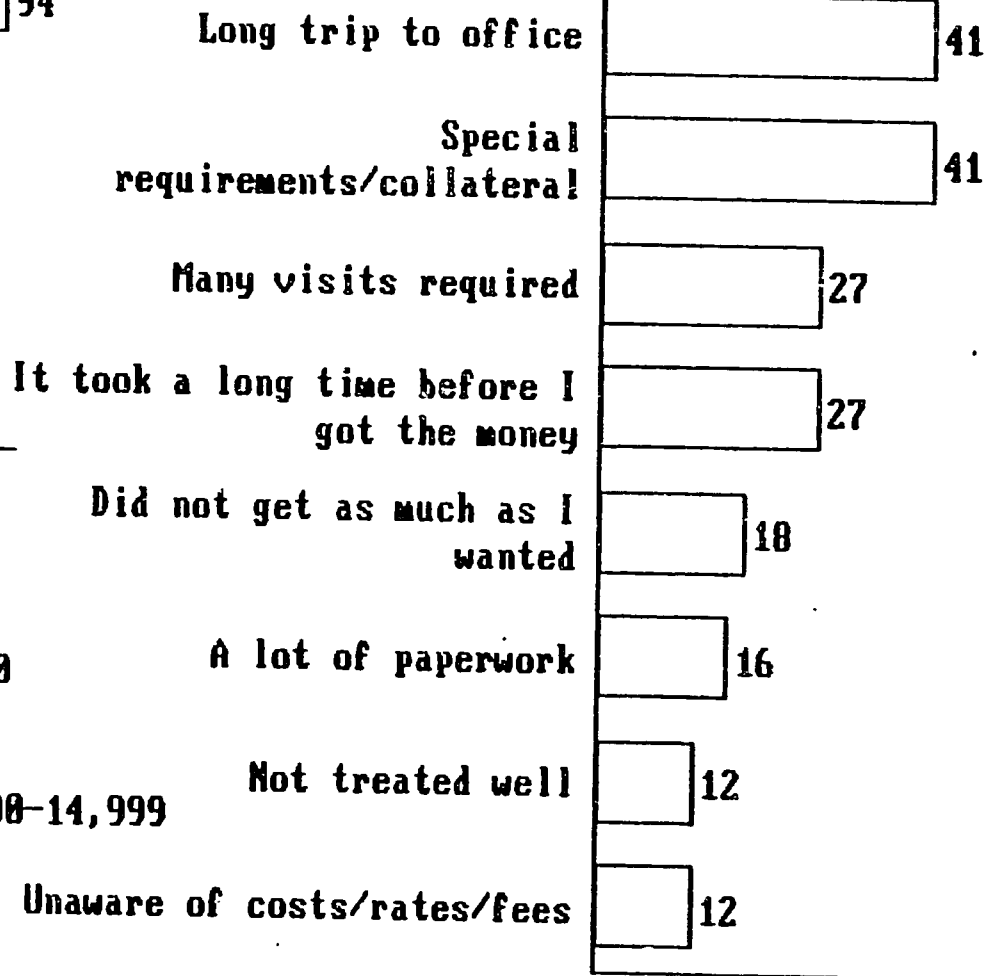
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CHART 2: EVALUATION OF OFFICIAL LOAN SOURCES

REASONS FOR PREFERRING OFFICIAL SOURCE



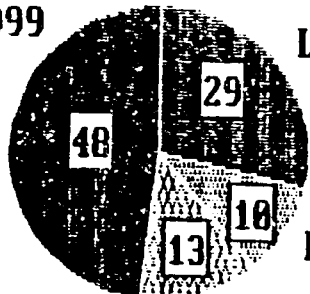
PROBLEMS IN GETTING LOAN



AMOUNT OF LOAN

Bht. 5,000-

9,999



Less than

Bht. 5,000

Bht. 10,000-14,999

Bht. 15,000

or over

Base: All official loans (49)

Ref: Ts. 3-4

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BUYING GOODS ON CREDIT

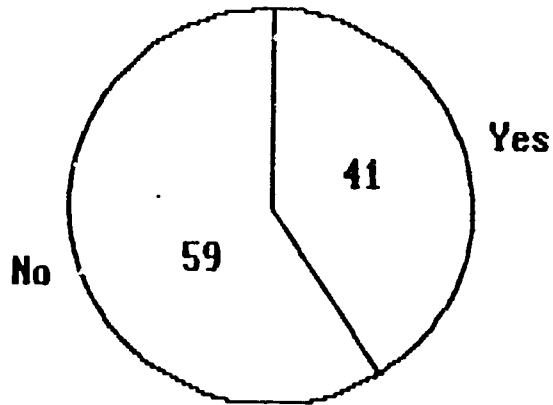
(Charts 3A-B)

9. The incidence of buying goods on credit is slightly less than half (41%), and is consistent across all districts. It bears a positive correlation with annual income, with 65% of the lowest income group (less than Baht 7000/annum) buying goods on credit and only 30% of the highest income group (Baht 15,000 and above) doing so. This is a pattern that is not seen with loans, where the lowest and the highest income groups had roughly the same loan incidence (80% and 76% respectively) while the middle income group had the highest loan incidence (84%).
10. Goods bought on credit were almost exclusively agricultural inputs : fertilizer (59%), pesticides (24%), farm equipment (8%), and to some extent water storage jars/containers (8%). Household durables were the next largest category, accounting for 22%.
11. The source outlet extending credit was in most cases the retail shop for the product (54%). Travelling salesmen also played an important role (27%).
12. From the income correlation with credit seen above, we can imply that buying goods on credit is a normal practice for these rural households and up to 72% do claim that this is so. This claim is again higher among the lower income group than for the middle or upper income group.

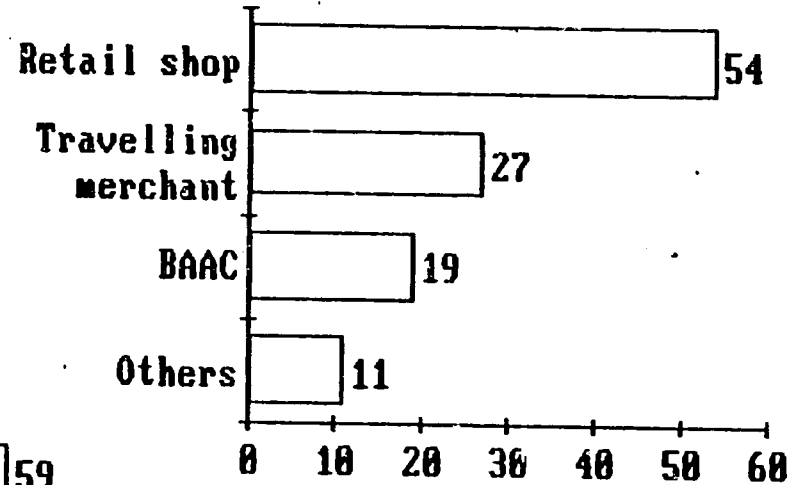
13. Given that buying on credit is considered a normal practice, it is interesting that about two-thirds consider the credit terms offered to be unfair (63%) due the high interest rate charged (42%) and the net price increase over the cash price (58%). Conversely, among those who thought the credit terms were fair, the main reason was due to the equivalent credit price to the cash price.
14. The alternatives to not buying on credit are distinct and consistent across all demographics : no purchase at all (33%), forced to buy with cash (29%), or borrow cash to buy the goods needed (26%).

CHART 3A: BUYING GOODS ON CREDIT

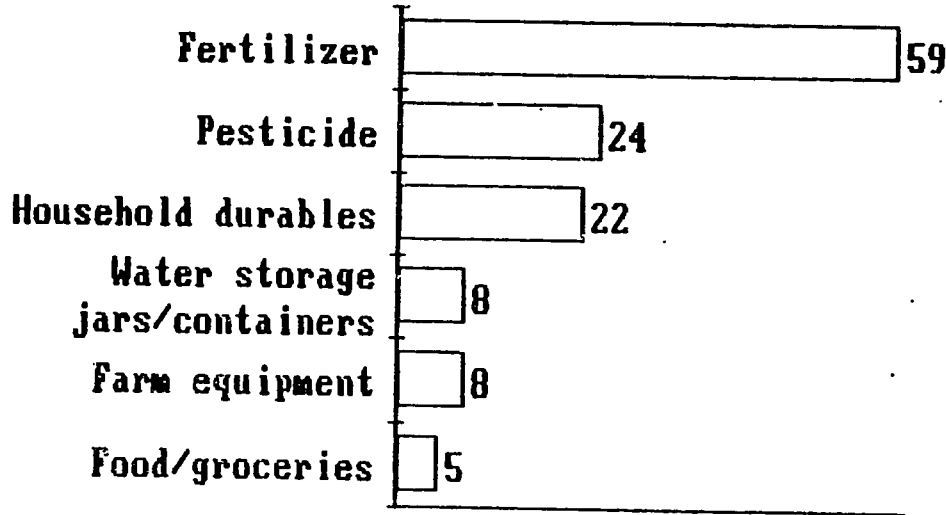
INCIDENCE



OUTLET SOURCE



TYPE OF GOODS



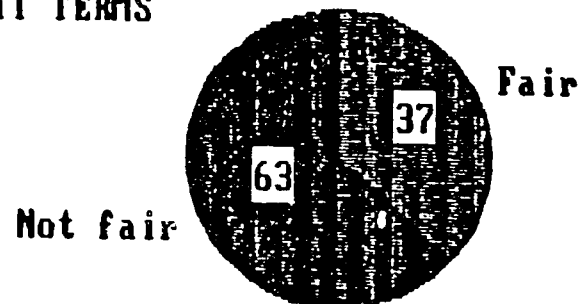
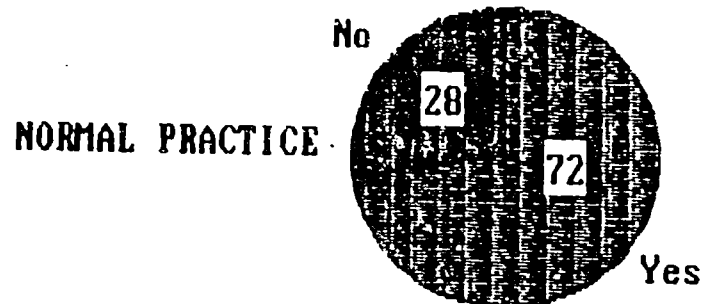
Base: All respondents (98)

Ref: Ts. 6-7

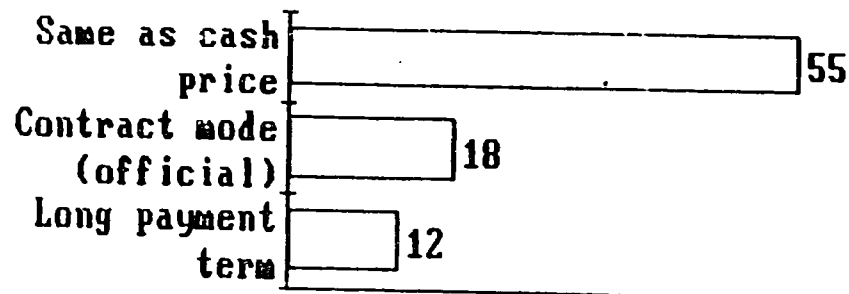
26/9

CHART 3B: BUYING ON CREDIT

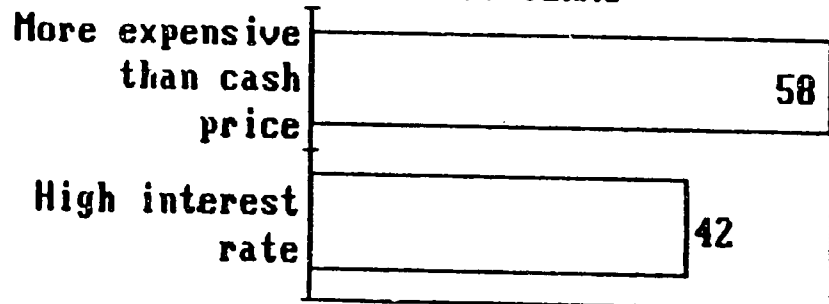
CREDIT TERMS



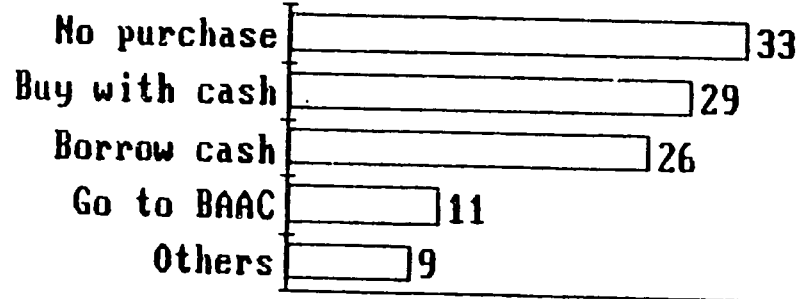
REASONS FOR FAIR CREDIT TERMS



REASONS FOR UNFAIR CREDIT TERMS



ALTERNATIVE TO CREDIT



Base: All respondents (90)

Ref: Ts. 8-9

FERTILIZER

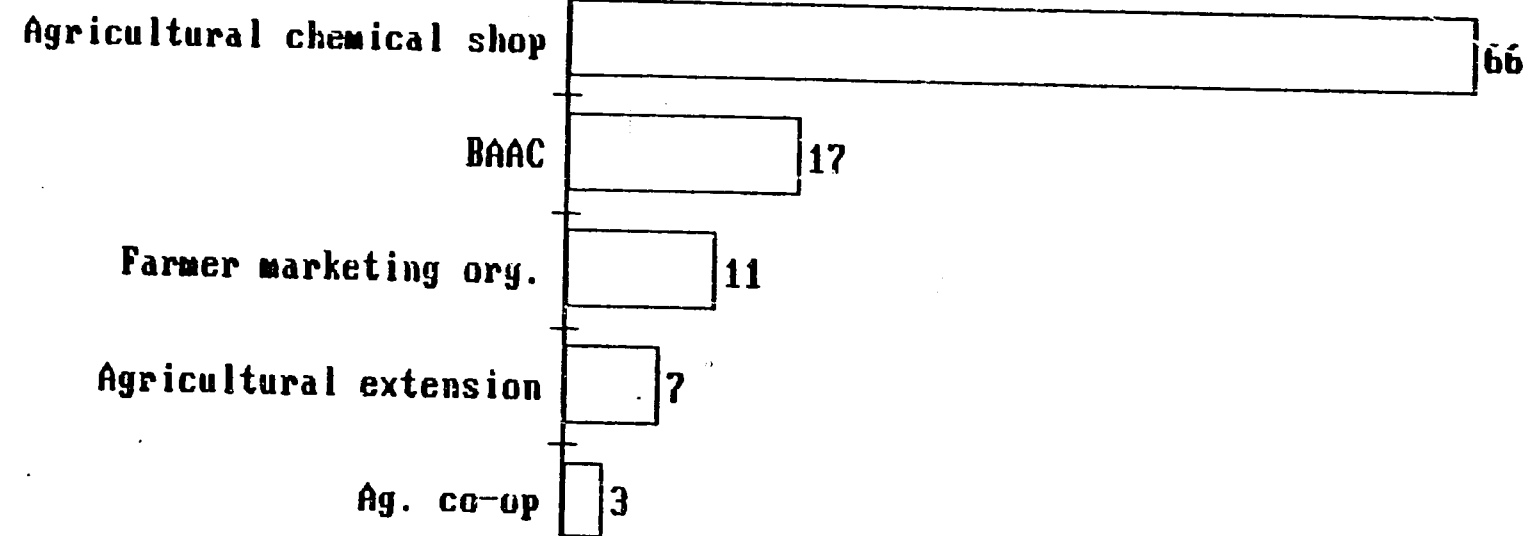
(Chart 4)

15. The importance of fertilizer as an agricultural input is seen from its purchase on credit. We see moreover that the main outlet source is the fertilizer or agricultural chemicals retail shop (66%), with only 17% buying from the BAAC and 11% from local farmer marketing organizations. Lower income farmers tend to purchase more frequently from the retail outlet than middle and upper income farmers who have a higher incidence of purchase at the BAAC and other official sources.
16. The reason for fertilizer use is clear. The majority want increased yields (79%) as well as health plants (38%). A minority (10%) want to maintain their soil fertility.

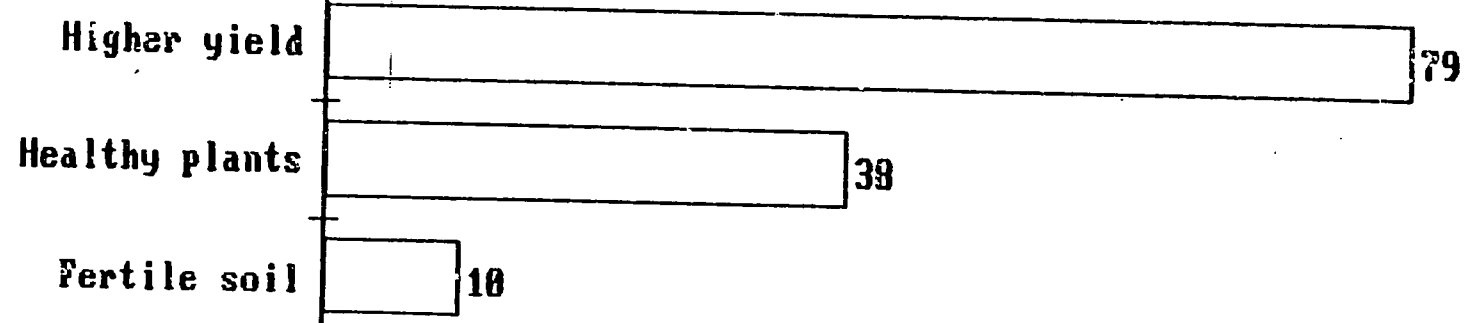
271

CHART 4: FERTILIZER

SOURCE OF FERTILIZER



EFFECT OF FERTILIZER



Base: All respondents (90)

Ref: Ts. 10-12

272

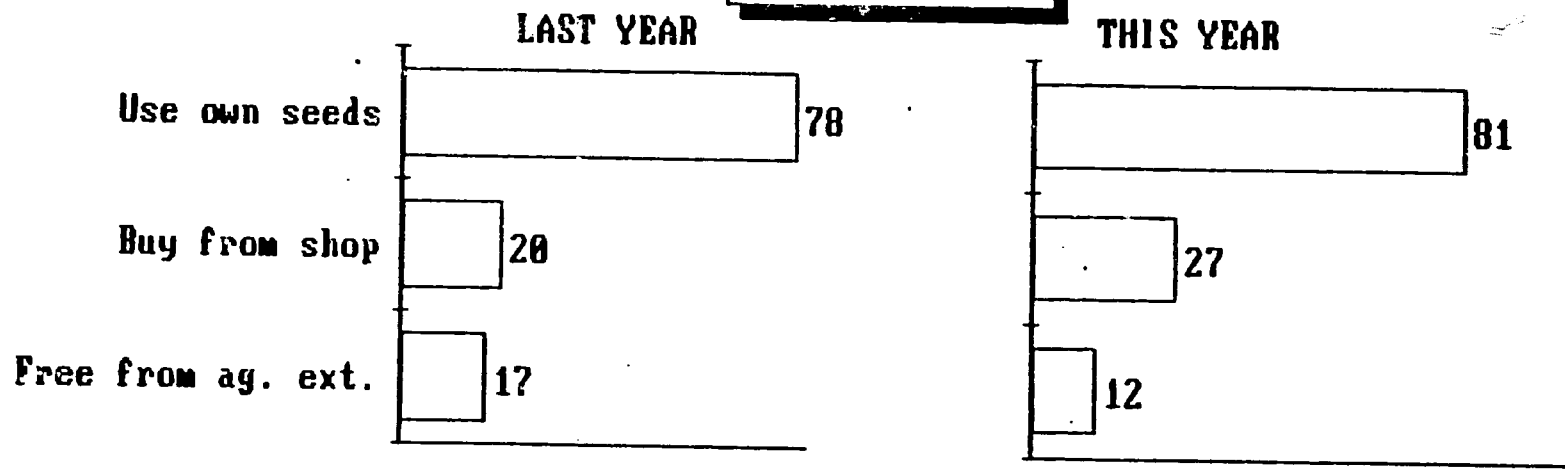
SEEDS

(Charts 5A-B)

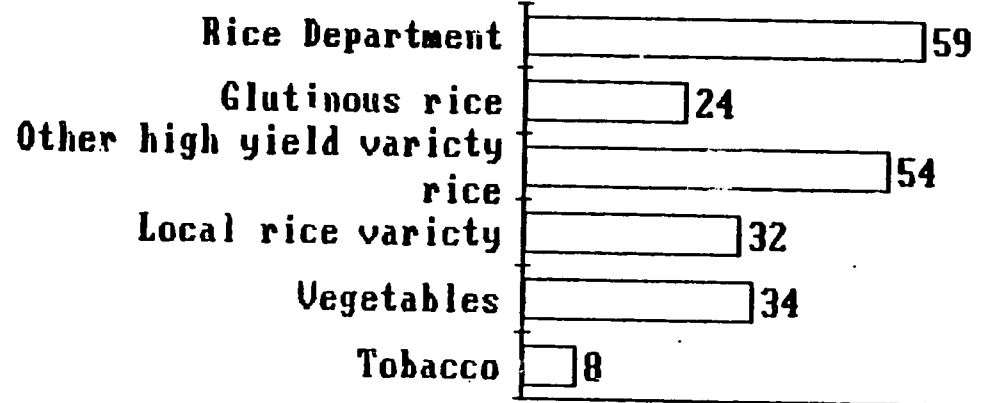
17. The sourcing of seeds is from the farmer's previous harvest (78%) with only 20% buying seeds from the seed or agricultural chemicals retail outlet. The latter will see a higher incidence among the upper income farmers (27%) as the seed source. We can associate this with the more technologically advanced types of seeds (hybrids).
18. Types of seeds used are concentrated around the main crop - rice. The principal rice seed is the Rice Department (RD) 6 variety followed by other high yield varieties, local varieties, and glutinous rice varieties. Vegetables are also increasingly important. All these seeds are considered good value for money (Table 15).
19. When queried about the best source of seeds a different pattern of responses emerges. The district agricultural office is perceived to be the best source of seeds (49% mention) even though few farmers actually purchase or get seeds from that source. This most likely is a supply constraint with the district agricultural office having only a limited quantity to distribute. What little is distributed is clearly seen as being of superior quality due to selectivity (51%).

21. The worse sources for seeds are local village seeds (presumably what farmers are now using) and those from the retail shop. The former suffer from yield problems while the latter are expensive and are hybrids. It would appear that the farmer is forced to use an inferior seed due to the unavailability of quality seeds and is reluctant to use private seed sources because of cost (including recurring cost of purchase because of hybridization).

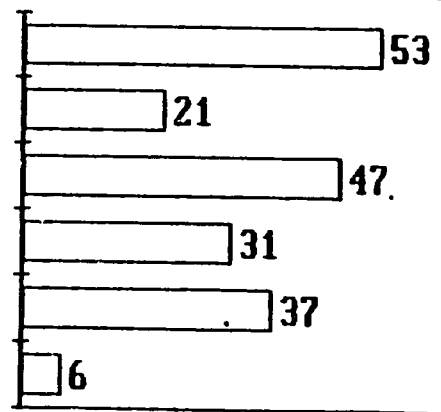
CHART 5A: SEEDS



TYPE OF SEEDS USED LAST YEAR



TYPE OF SEEDS USED THIS YEAR

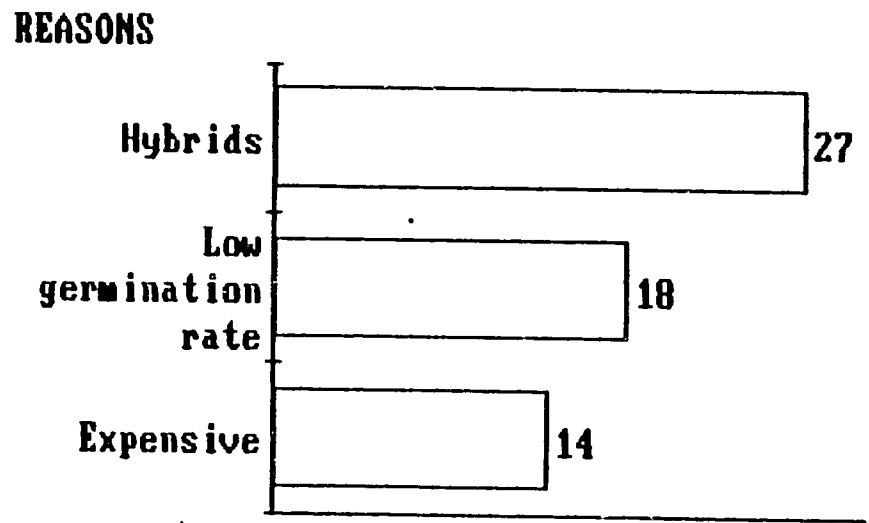
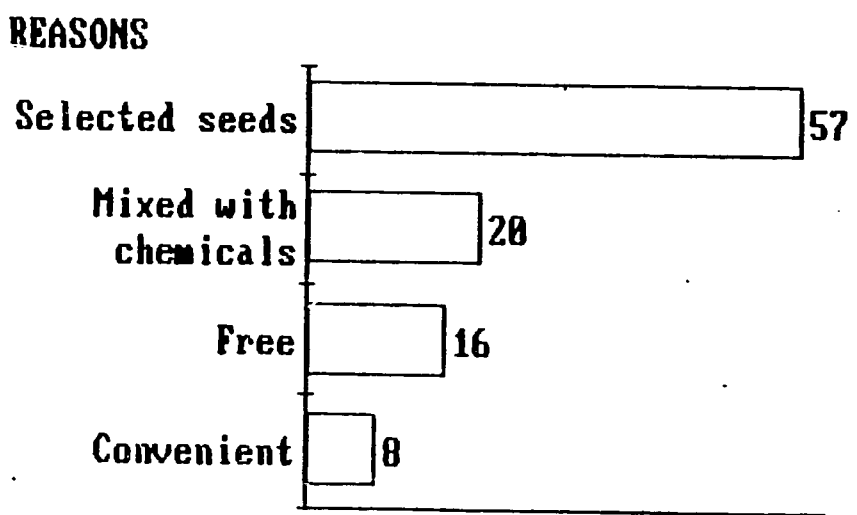
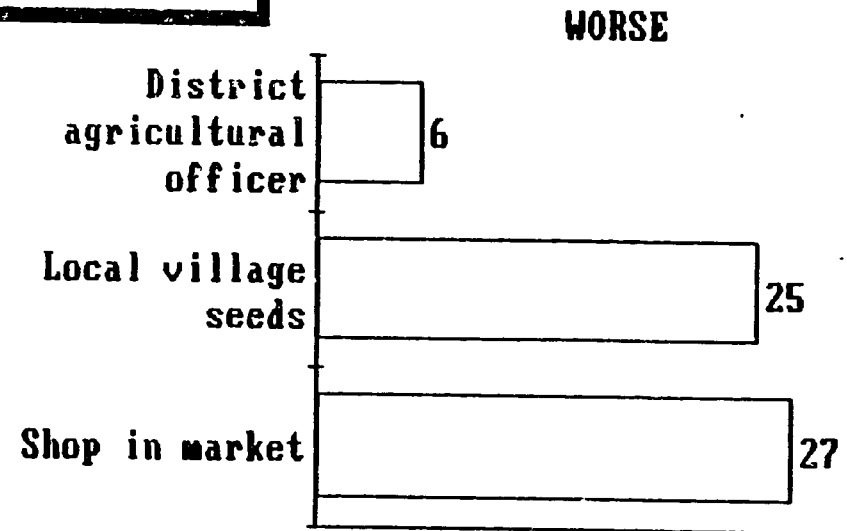
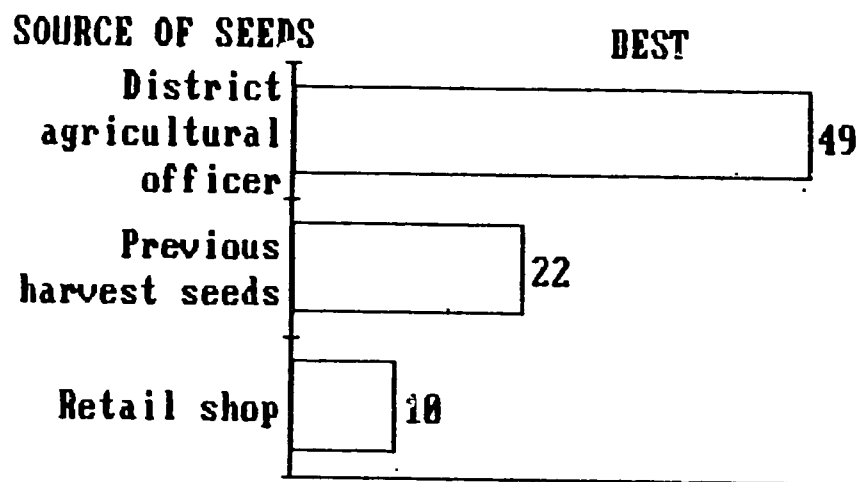


Base: All respondents (98)

Ref: Ts. 13-16

27

CHART 5B: SEEDS (CONT'D)



Base: All multiple source users (51)

Ref: Ts. 17-18

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YIELD

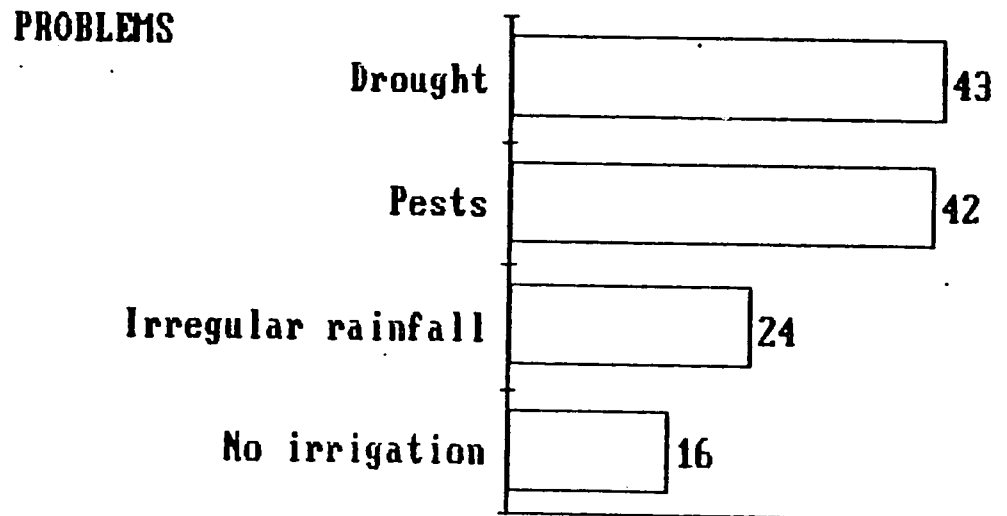
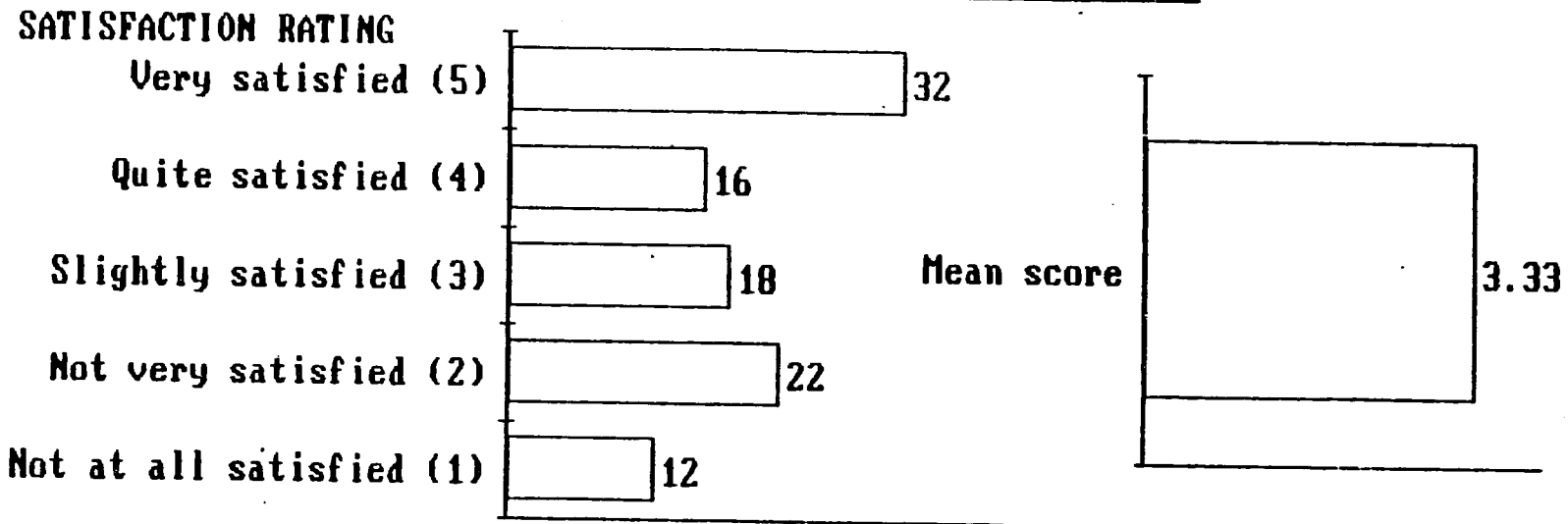
(Charts 6A-B)

22. Yields and the satisfaction with those yields have been variable. Overall low satisfaction with yields is recorded, with a mean score of 3.33 (out of 5). There is substantial variation by district, with Ajsamart and Panom Prai respondents having high satisfaction with yield levels (mean scores of 4.25) while Suwannaphume and Kaset Wisai respondents have relatively low mean scores of 3.23 and 2.11 respectively. These yield satisfaction ratings show a direct relation to the incidence of loans as well as the extent of drought-related problems.
23. Although overall both drought and pests are mentioned at similar levels, variation by district shows the direct correlation between mention of drought (55% mention in Suwannaphume and 71% mention in Kaset Wisai) and the satisfaction rating of yields. Irregular rainfall and lack of irrigation are also mentioned more in these districts.
24. Conversely in districts where yields are at satisfactory levels there is a greater mention of pests (53% and 48% respectively in Ajsamart and Suwannaphume).
25. Yields for 1987 are expected generally to decrease. Interestingly enough the districts with better yields in 1986 are more likely to expect a decline, while districts with poorer yields in 1986 are slightly more optimistic.

26. In the past year there has been a flurry of activity in creating water resources in drought affected areas in the Northeast. These have been at the behest of H.M. the King and has had the full support of the Royal Thai Army. It has taken the form of water storage ponds dug at villages and the large-scale construction of medium size dams as well as irrigation systems.
27. Given these remedial measures it is more than likely that the hard hit areas in 1986 would be the first to benefit in the next year, whereas little affected areas would still likely to suffer increased drought conditions in 1987.
28. Clearly, however, the issue of water resources, both small scale and large scale, is the major concern of farmers and will have an immediate impact on their well-being.

22

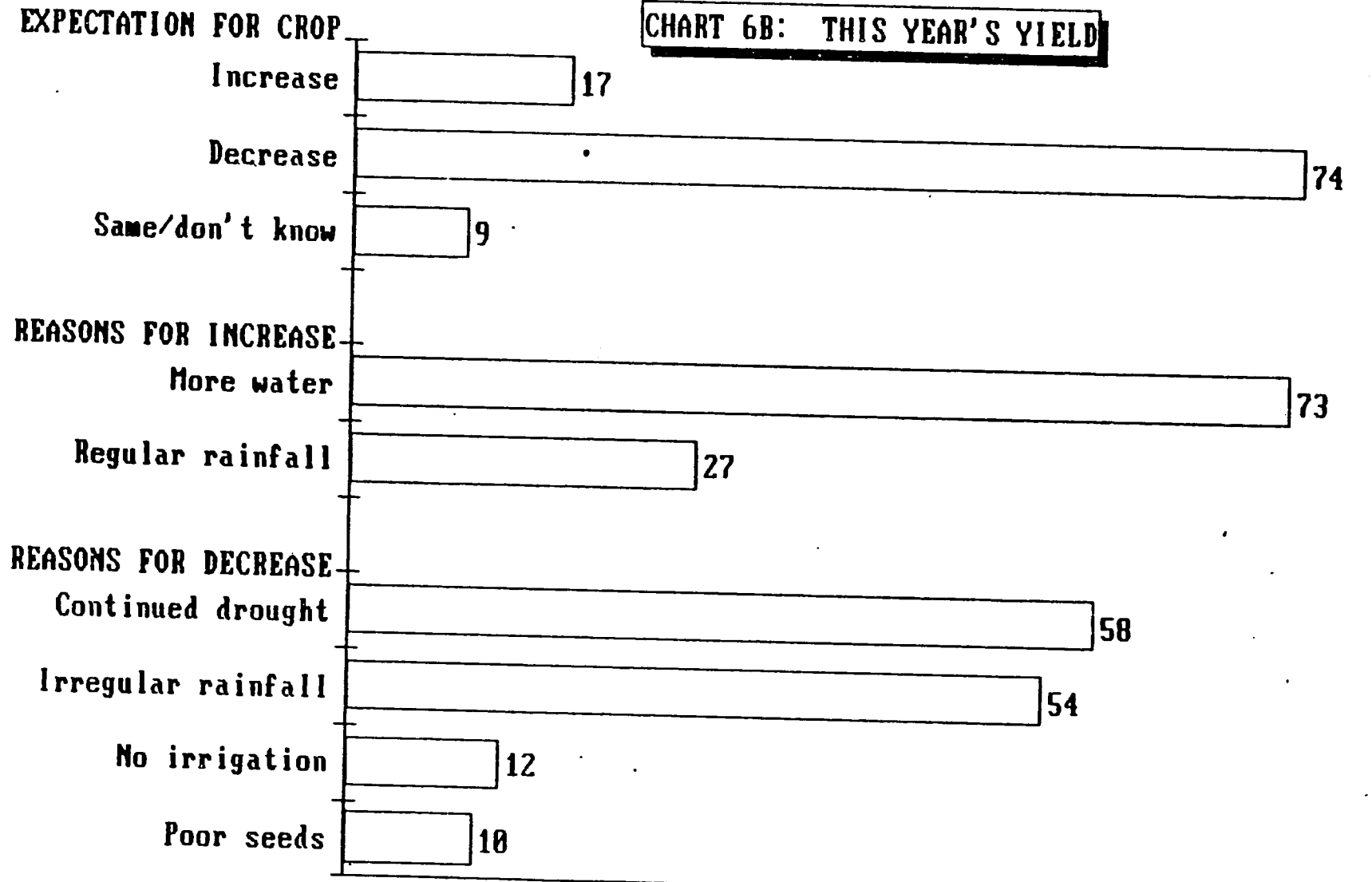
CHART 6A: LAST YEAR'S YIELD



Base: All respondents (90)

Ref: Ts. 19-20

CHART 6B: THIS YEAR'S YIELD



Base: All respondents (98)

Ref: Ts. 22-23

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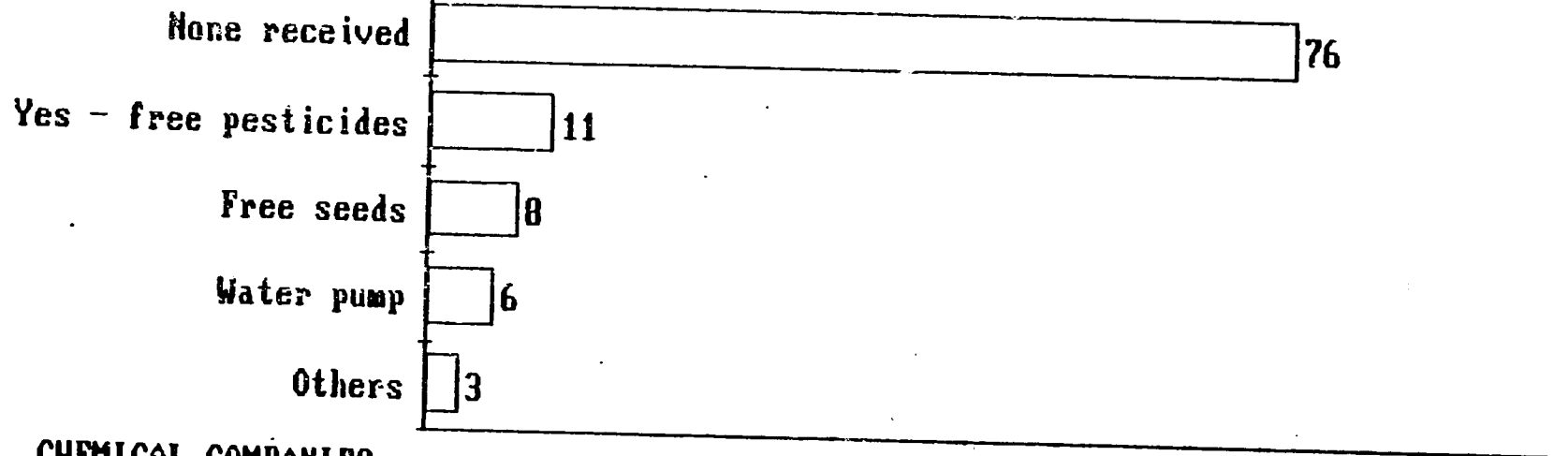
OFFICIAL ASSISTANCE

(Charts 7A-B)

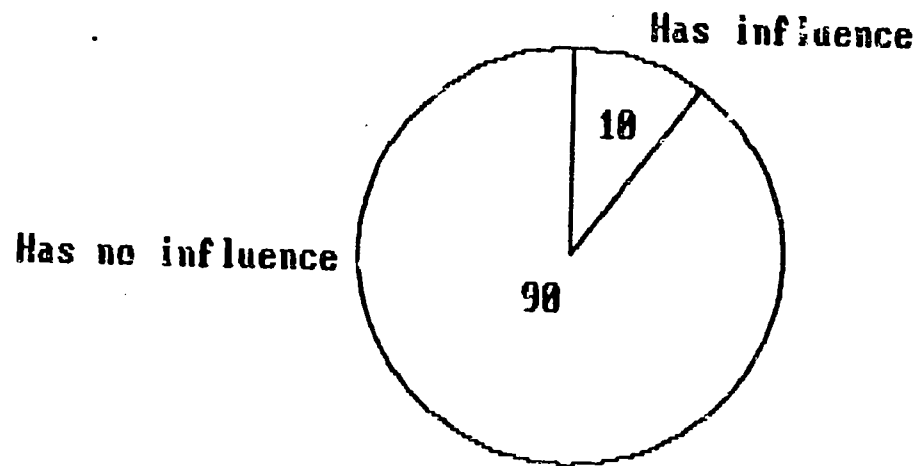
29. Official assistance has not been widespread in the districts surveyed. Overall only 24% mentioned any form of governmental assistance (excluding Royal projects). These again are primarily aimed at the districts that have poor yield performance : in Kaset Wisai up to 46% received some form of official assistance.
30. Chart 7B shows the types of assistance which were received. Most relate directly to agriculture : irrigation/water supplies (39% mention), agricultural expertise (34%), and seeds/animals (17%). Public health (32%) is the next most important item while infrastructural developments are considered secondary : roads (20%) and electricity (16%).
31. Chart 7B also shows any bad experiences received in contact with officials. Communication problems seem to generally be common, but there seems to be little mention of corruption in its pecuniary form. This is borne out by farmers' responses to corruption as a whole. While about 60% say or believe that there is corruption, most have not experienced it directly, but imply it from their own economic status : i.e. they should be better off if there were not corruption.
32. On the private sector side, there does not seem to be much influence in the area from agricultural chemical companies. This is in contrast to the Central Plains region where rice is a major cash crop for export and the ag-chem companies are very active at the village level.

CHART 7A: OFFICIAL ASSISTANCE AND AG. CHEMICAL COMPANIES' INFLUENCE

OFFICIAL ASSISTANCE



AG. CHEMICAL COMPANIES

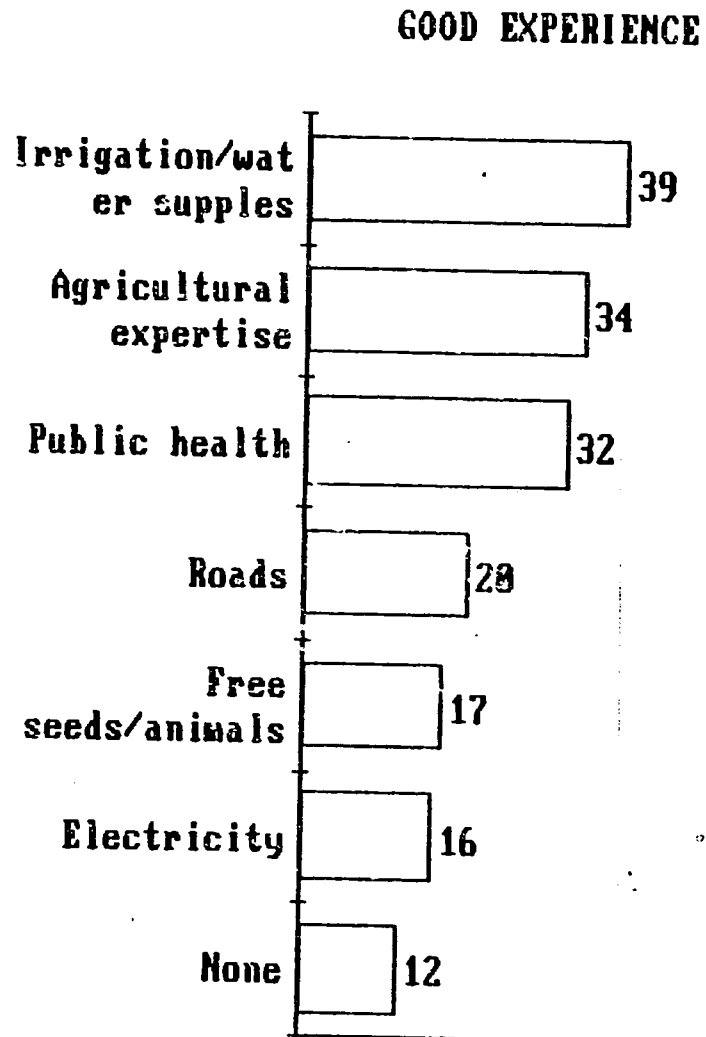


Base: All respondents (90)

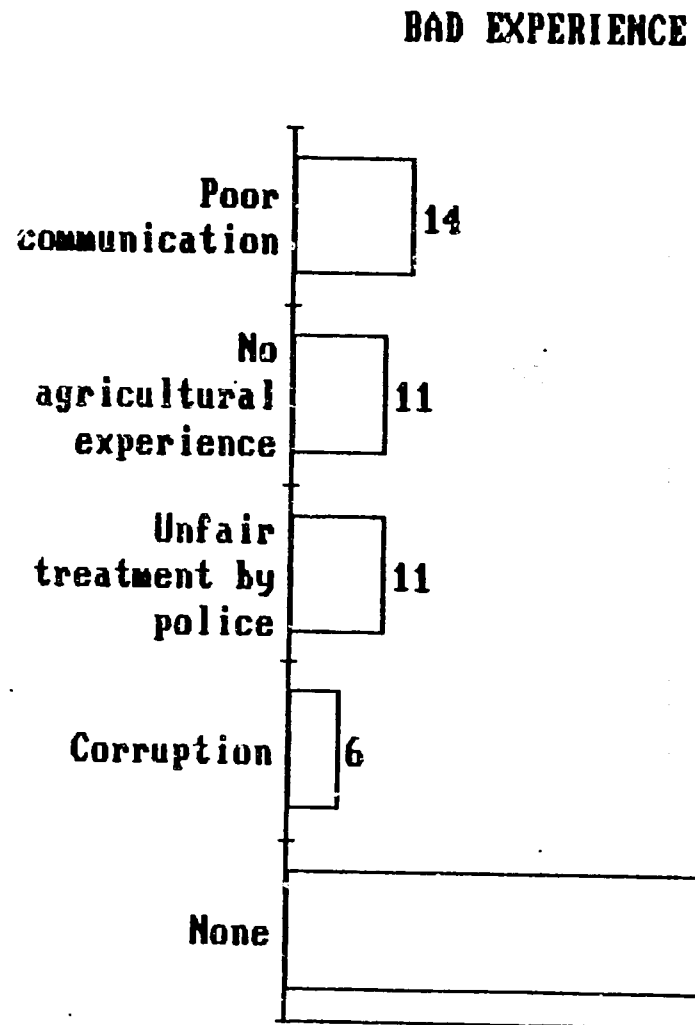
Ref: Ts. 21, 36

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CHART 7B: EXPERIENCE WITH OFFICIALS



Base: All respondents (98)



Ref: Ts. 24-25, 27

28

QUALITY OF LIFE INDICATORS

(Chart 8)

33. Farmers were asked what were the 3 things that had the greatest effect on life in the village over the past 5-10 years. The main items are all infrastructural : roads (76%), electricity (71%), water supply (49%), and public health (30%). These responses were consistent across all breakdowns.
34. When probed specifically about public utilities, again roadways, electricity and water supply were all mentioned as having increased substantially within the past 5-10 years.
35. On the negative side, drought (58%) was mentioned most, implying that the problem is a fairly recent one which has reached critical levels due to deforestation and irregular rainfall. The Northeast has always been an arid area, but the combination of the two factors has likely caused the problem to become more severe in the past 5-10 years.
36. Another quality of life indicator that was specifically probed for was whether villagers were better informed of events outside compared with 5-10 years ago. There was unanimous agreement on this. Contribution to this must come from the advent of electricity and the introduction of radio and television as key media for the village population.

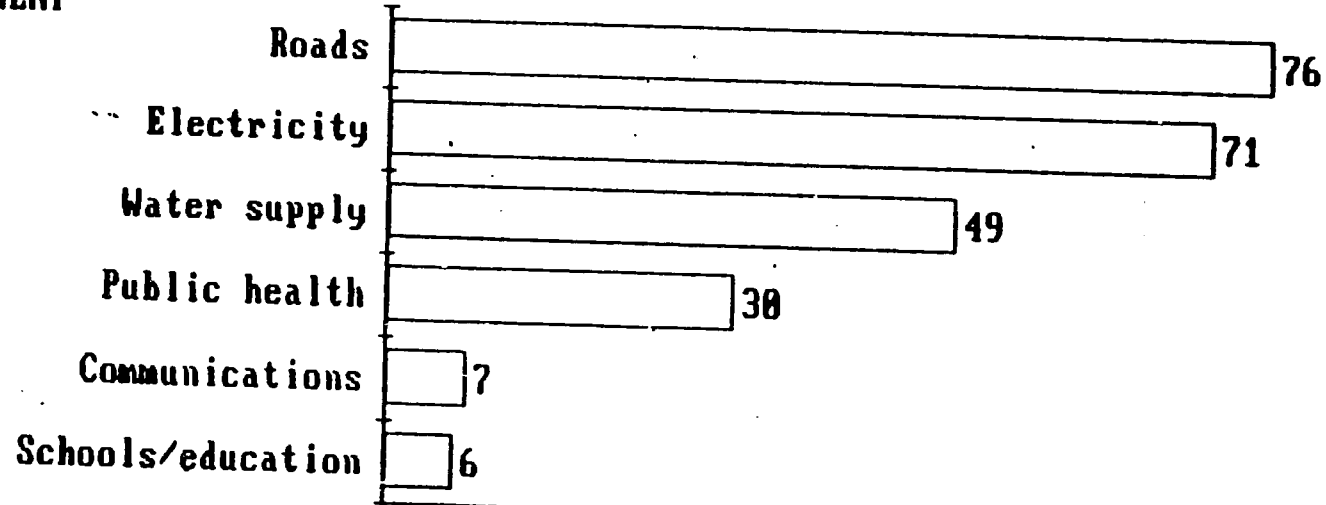
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37. On the material side, again there was substantial agreement (over 90%) that villagers were materially better off now, measured by subjective assessment of having more disposable income (money to spend) and objective assessment of increased possession of consumer durables.
38. Key consumer durables which have increased in the past 5-10 years are radios (84%), televisions (76%), bicycles (80%), motorcycles (73%), and cars (54%). An exhaustive list of other consumer durables can be found in T.41 of the tabulations.

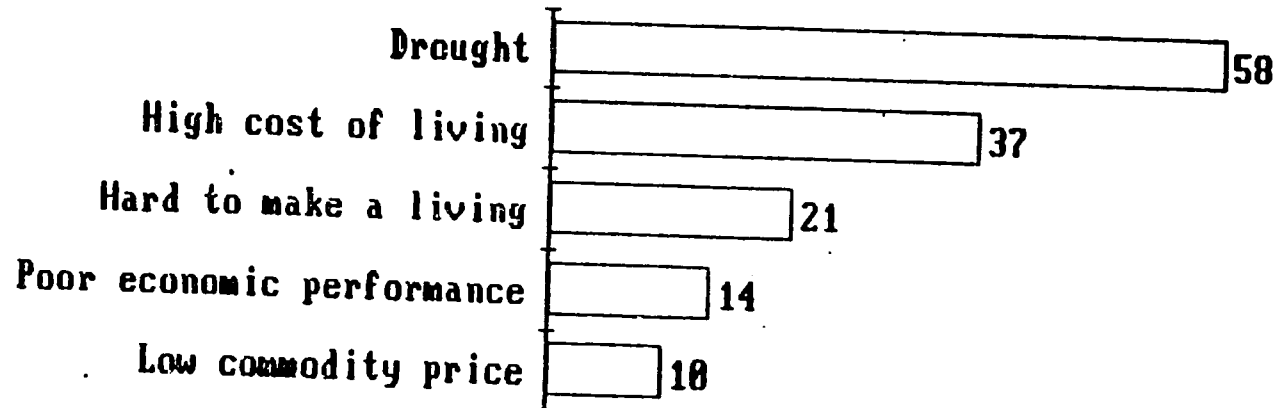
205

CHART 8: QUALITY OF LIFE INDICATORS (PAST 5-10 YEARS)

IMPROVEMENT



DECLINES



Base: All respondents (90)

Ref: Ts. 28-31, 40-42

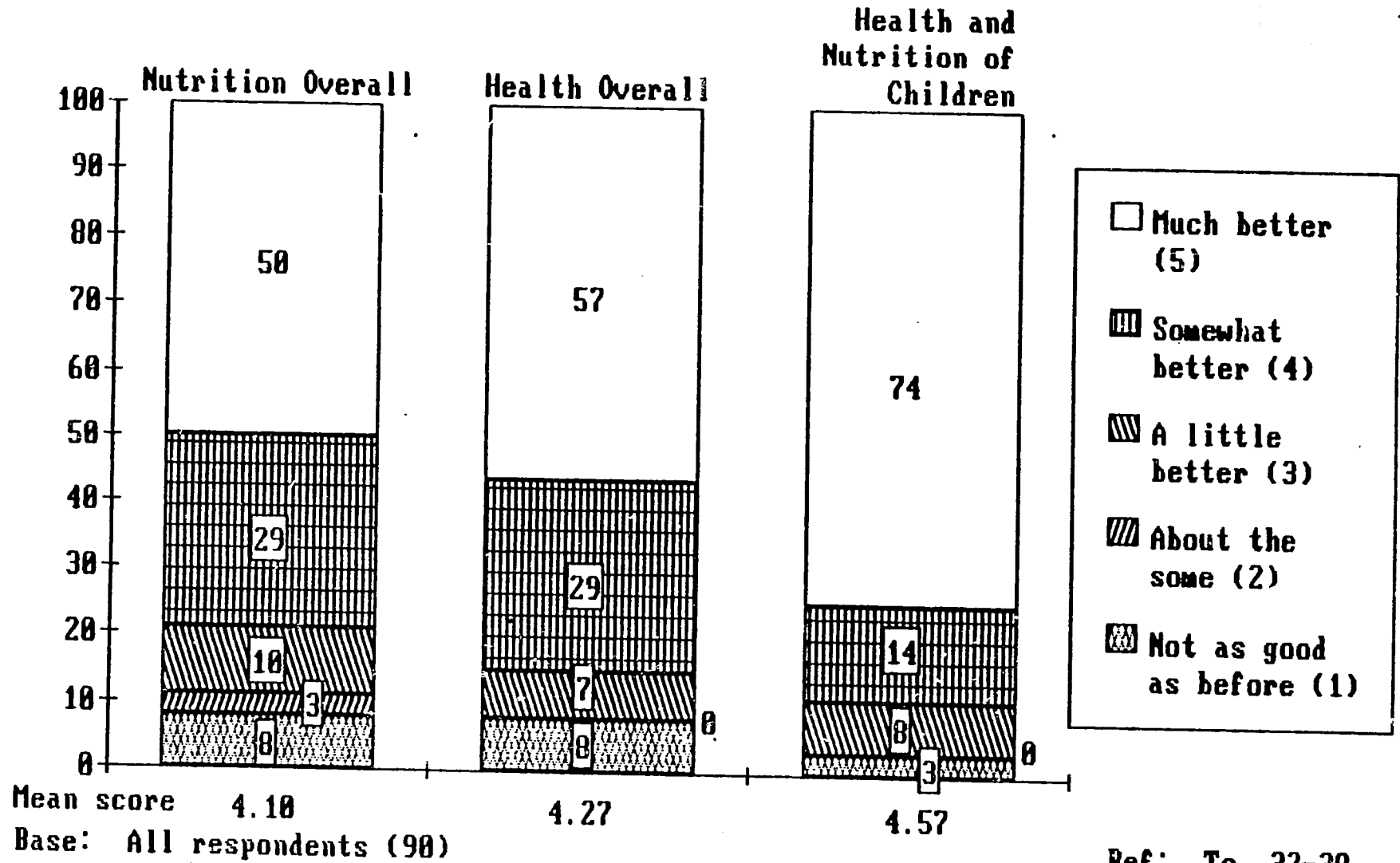
28

NUTRITION AND HEALTH

(Charts 9A-C)

39. Another area of investigation within quality of life was about health and nutrition. Respondents rated nutrition, health, and that of children compared with 5-10 years ago. In general, both health and nutrition were seen as being much better than before, with 50% saying so for nutrition and 57% for health. Overall mean scores (out of 5) were 4.10 for nutrition and 4.27 for health. By district, Suwannaphume respondents seemed to be less positive (mean score of 3.55).
40. Reasons for improvements in nutrition and health were perceived as stemming from better knowledge (66%), the increase in crops grown (57%) and government assistance (42%). For health, infra-structural developments were stressed: more health centers (73%), better transportation to hospitals (59%), and more doctors and nurses visiting the villages (49%). Overall sanitation in the village was also highly mentioned (47%) as was the effect of the mobile health units (34%).
41. When it came to evaluating the health and nutrition of children in the village, there was even more positive responses, with 74% of all respondents saying it was much better (mean score of 4.57).
42. On the negative side, pesticide usage has caused an incidence of health problems of up to 44% overall. These are mostly incidental problems such as dizziness (mentioned by 68%) and are not fatal. However, the cumulative effect of pesticide usage cannot be ignored.

CHART 9A: NUTRITION AND HEALTH RATINGS

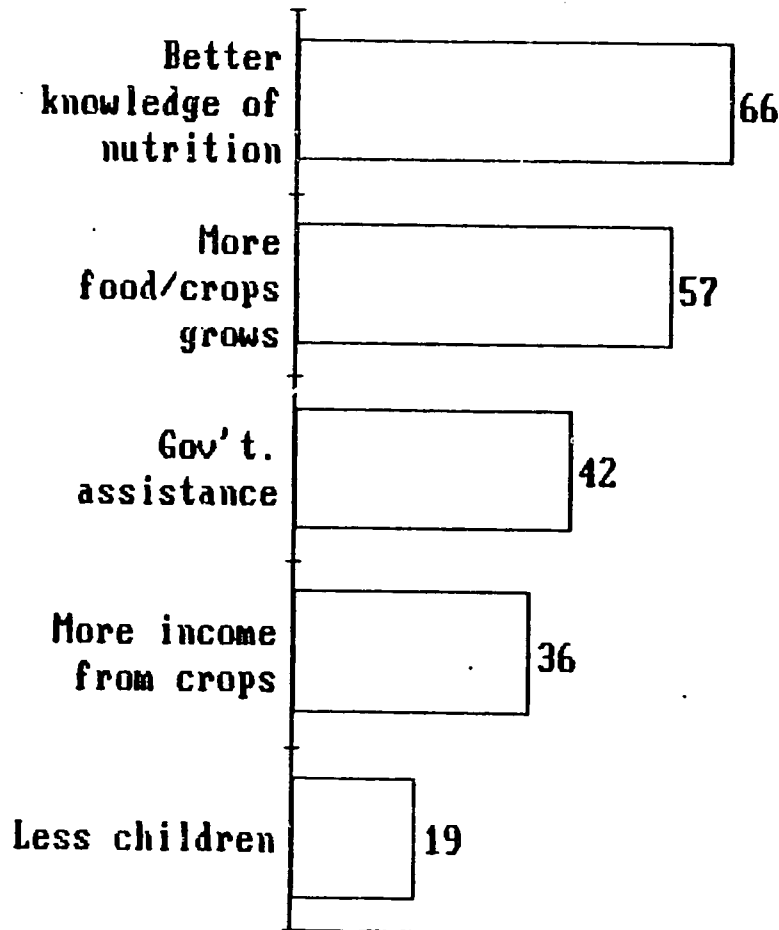


Ref: Ts. 32-38

183

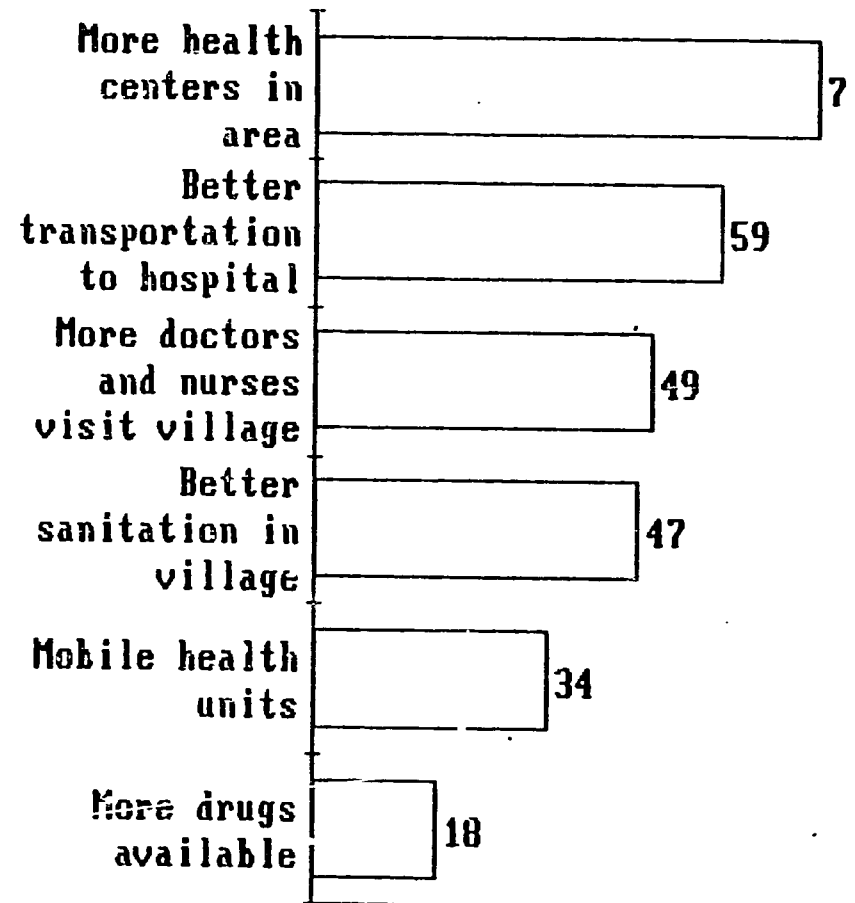
CHART 9B: REASONS FOR IMPROVEMENT

NUTRITION



Base: All respondents (90)

HEALTH

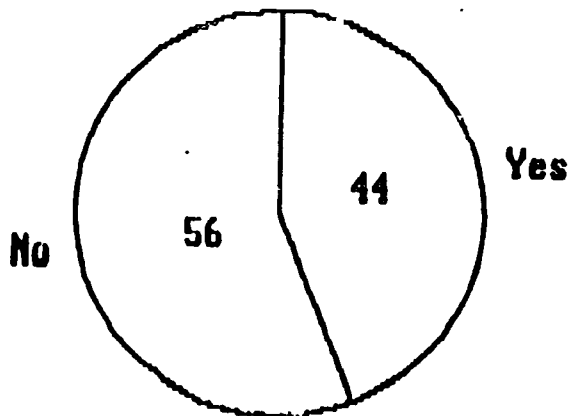


Ref: Ts. 32-38

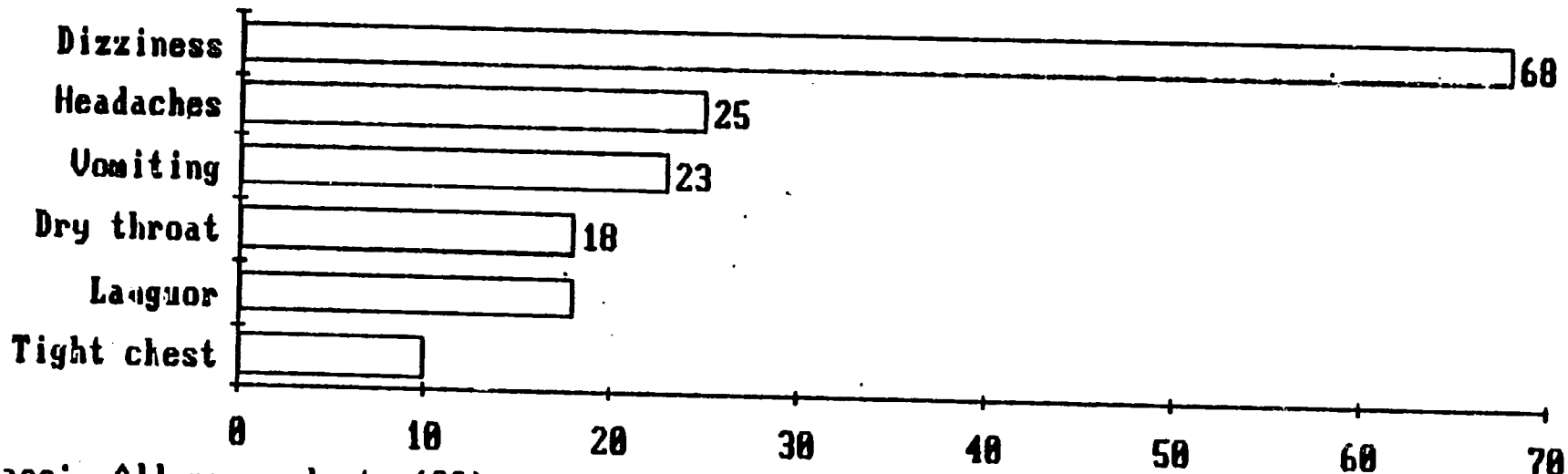
28

CHART 9C: HEALTH PROBLEMS DUE TO PESTICIDE USE

INCIDENCE



PROBLEMS



Base: All respondents (90)

Ref: T. 39

290

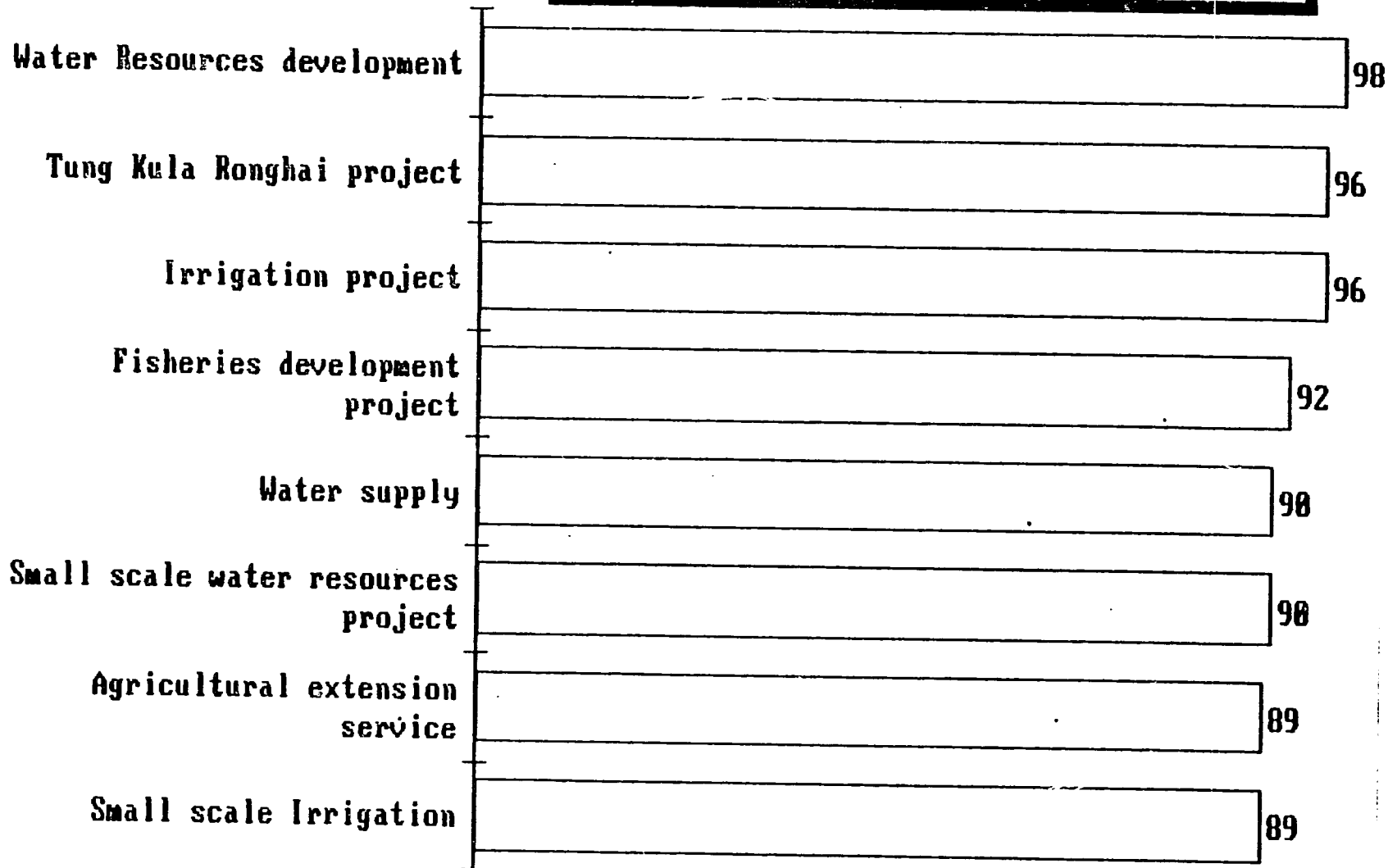
AWARENESS OF DEVELOPMENT PROGRAMS

(Charts 10A-C)

43. Charts 10A-C show respondents' awareness of various development projects implemented by USAID and various other donors over the past few years. There are 2 specific projects funded by AID and covering Roi-Et province. These are the Small Scall Irrigation Project (89% mention) and the NE Rainfed Agriculture Development Project (78%).
44. It appears that regardless of whether the project is targetted at the province or not, awareness of what is going on is very high.

241

CHART 10A: AWARENESS OF DEVELOPMENT PROGRAMS

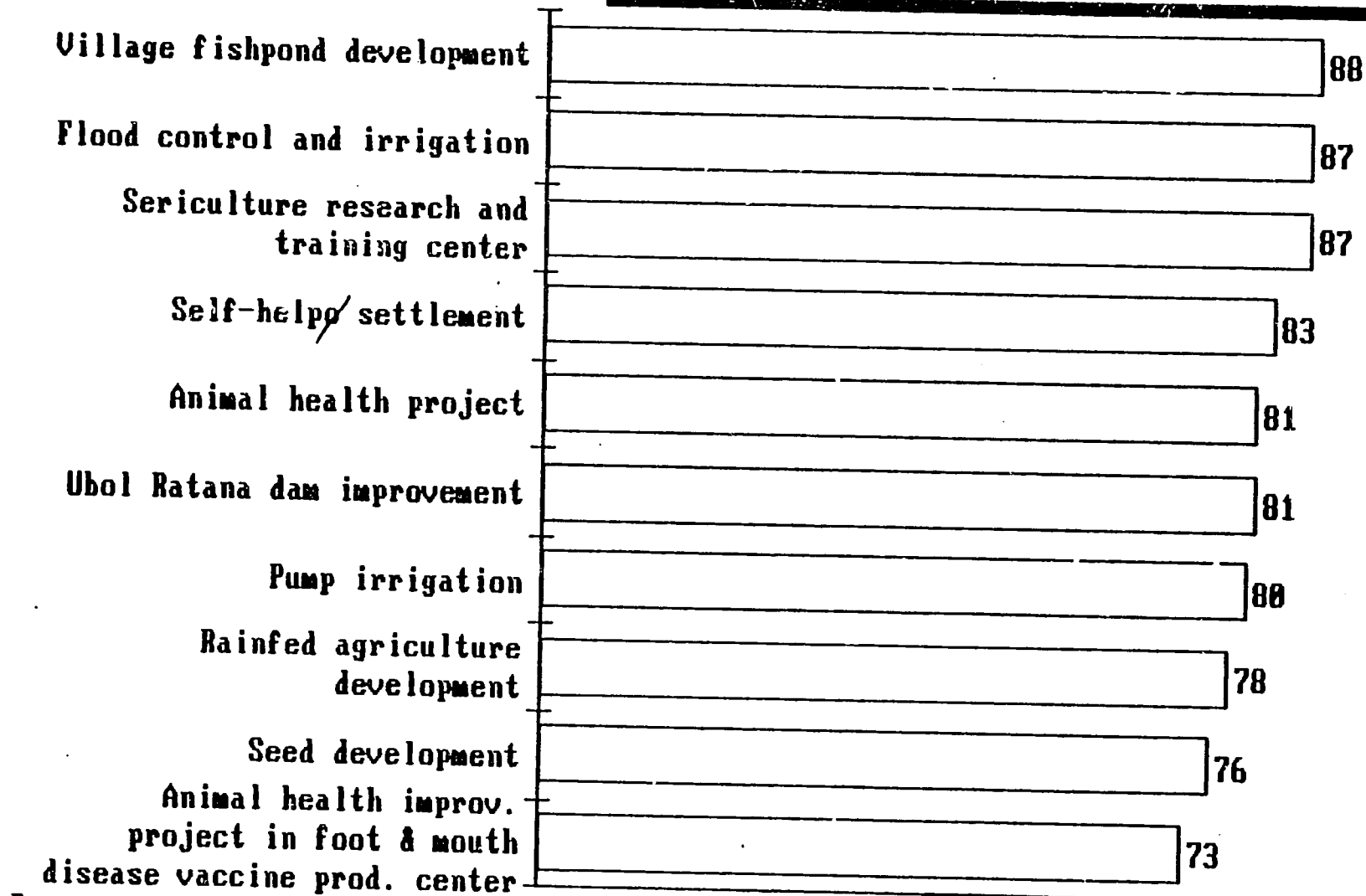


Base: All respondents (98)

Ref: T. 44AB

212

CHART 10B: AWARENESS OF DEVELOPMENT PROGRAMS

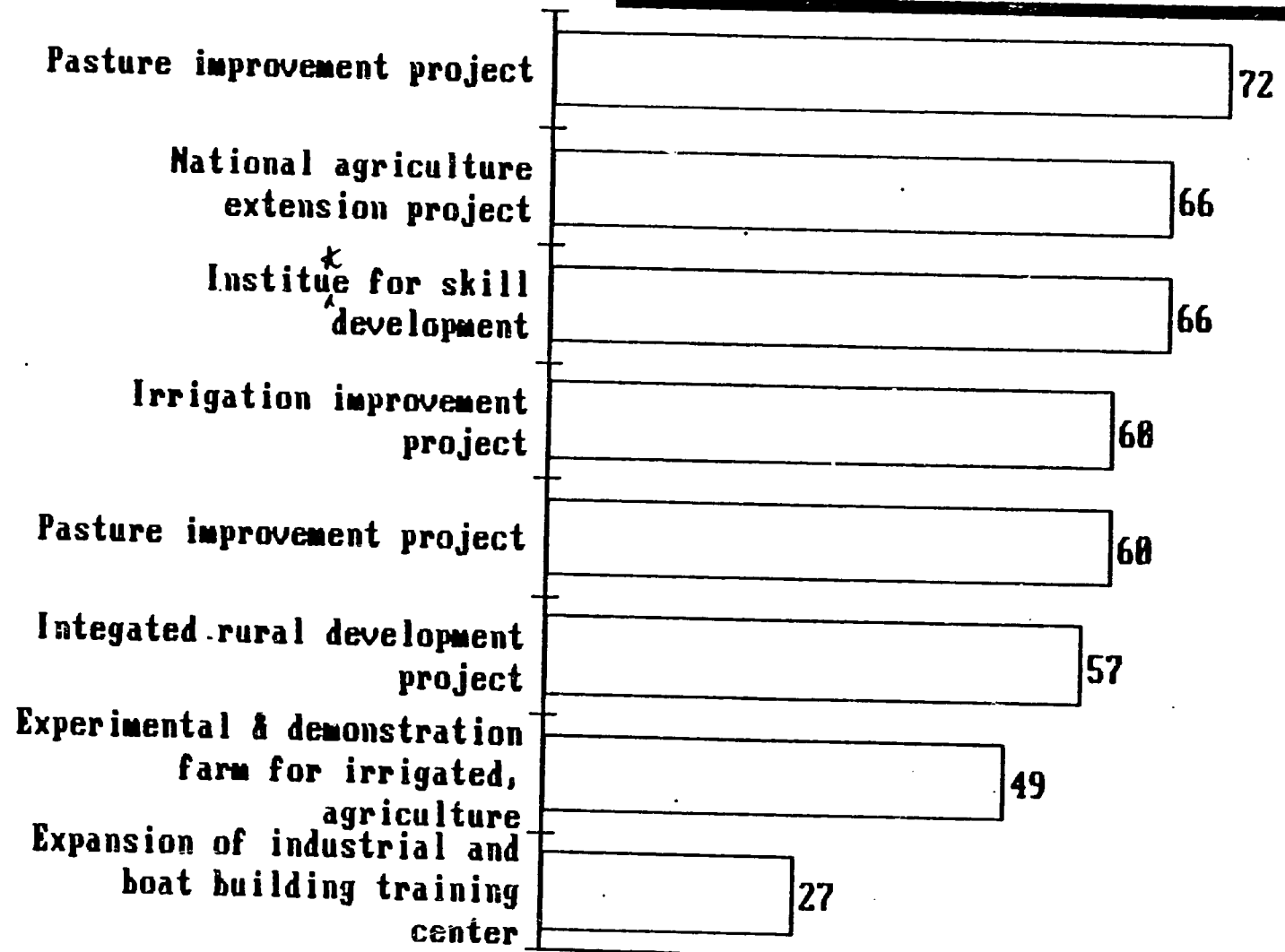


Base: All respondents (90)

Ref: T. 44AB

292

CHART 18C: AWARENESS OF DEVELOPMENT PROGRAMS



Base: All respondents (98)

Ref: T. 44AB

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DEMOGRAPHICS

(Ts. 45-48)

45. Detailed demographics of the respondents appear in Tables 45-48 of the tabulations.

Table 1A
 SOURCES OF LOAN OBTAINED LAST YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NONH	NONO SUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG SUA	AJSA- MART	PANOM PRAI	SU- HANNA PHUME	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
<u>SOURCES OF LOAN</u>													
BAAC	48 53%	2 20%	1 13%	8 73%	5 50%	6 43%	7 88%	11 58%	8 80%	5 26%	12 57%	13 59%	18 64%
FRIENDS/RELATIVE	16 18%	3 30%		1 9%	1 10%	5 36%		6 32%		2 11%	3 14%	5 23%	6 21%
AG. CO-OP.	5 6%	1 10%	1 13%		1 10%			2 11%		2 11%	1 5%		2 7%
LOCAL SHOPKEEPER	2 2%							2 11%					2 7%
LOCAL MONEY LENDER	2 2%		1 13%				1 13%			1 5%		1 5%	
COMMERCIAL BANK	1 1%												1 4%
OTHERS	5 6%	1 10%				2 14%		1 5%	1 10%	1 5%		3 14%	1 4%
NONE	18 20%	4 40%	5 63%	2 18%	3 30%	3 21%		1 5%		9 47%	5 24%	3 14%	1 4%

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Table 18
 SOURCES OF LOAN OBTAINED LAST YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90 100%	25 100%	35 100%	50 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
SOURCES OF LOAN														
BAAC	48 53%	8 32%	19 54%	21 70%	16 40%	18 58%	14 74%	6 30%	22 59%	20 61%	43 88%	5 12%	16 43%	32 60%
FRIENDS/RELATIVE	14 16%	9 36%	4 11%	3 10%	10 25%	4 13%	2 11%	6 30%	8 22%	2 6%	2 4%	14 34%	8 22%	8 15%
AG. CO-OP.	5 6%		4 11%	1 3%	3 5%	3 10%		1 5%	3 8%	1 3%	4 8%	1 2%	3 8%	2 4%
LOCAL SHOPKEEPER	2 2%		2 6%		2 5%			2 10%				2 5%	1 3%	1 2%
LOCAL MONEY LENDER	2 2%	2 8%			2 5%			1 5%	1 3%			2 5%	2 5%	
COMMERCIAL BANK	1 1%			1 3%			1 5%			1 3%	1 2%			1 2%
OTHERS	5 6%	1 4%	2 6%	2 7%	3 8%		2 11%		4 11%	1 3%	2 4%	3 7%	3 8%	2 4%
NONE	18 20%	7 28%	8 23%	3 10%	10 25%	7 23%	1 5%	6 20%	6 16%	8 24%		18 44%	6 16%	12 23%

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Table 2A
 INCIDENCE OF BORROWING MONEY FROM A BANK OR OTHER OFFICIAL SOURCES AND REASONS FOR NOT BORROWING
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- HANNA PHURE	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
BORROWING MONEY FROM A BANK OR OTHERS													
YES	49 54%	3 30%	1 13%	8 73%	4 40%	5 36%	7 88%	11 58%	10 100%	6 32%	11 52%	12 55%	20 71%
NO	41 46%	7 70%	7 88%	3 27%	6 60%	9 64%	1 13%	8 42%		13 68%	10 48%	10 45%	8 29%
ALL NOT BORROWING MONEY	41 100%	7 100%	7 100%	3 100%	6 100%	9 100%	1 100%	8 100%		13 100%	10 100%	10 100%	8 100%
REASONS													
ENOUGH MONEY AT HOME	16 39%	4 57%	1 14%	2 67%	4 67%	3 33%		2 25%		5 38%	6 60%	3 30%	2 25%
NO COLLATERAL	10 24%	2 29%	1 14%	1 33%	1 17%	2 22%		3 38%		2 15%	3 30%	2 20%	3 38%
AFRAID TO BORROW/ CAN'T PAY BACK	8 20%		3 43%			2 22%	1 100%	2 25%		3 23%		3 30%	2 25%
DO NOT KNOW HOW TO CONTACT	4 10%		2 29%			1 11%		1 13%		2 15%		1 10%	1 13%
NOT A CUSTOMER OF BANK	3 7%	1 14%	1 14%			1 11%				2 15%		1 10%	
OTHERS	2 5%					1 11%		1 13%				1 10%	1 13%
DON'T KNOW	2 5%			1 33%	1 17%						2 20%		

250

Table 2B
 INCIDENCE OF BORROWING MONEY FROM A BANK OR OTHER OFFICIAL SOURCES AND REASONS FOR NOT BORROWING
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
BORROWING MONEY FROM A BANK OR OTHERS														
YES	49 54%	7 28%	22 63%	20 67%	17 43%	17 55%	15 79%	8 40%	20 54%	21 64%	49 100%		20 54%	29 55%
NO	41 46%	18 72%	13 37%	10 33%	23 58%	14 45%	4 21%	12 60%	17 46%	12 36%		41 100%	17 46%	24 45%
ALL NOT BORROWING MONEY	41 100%	18 100%	13 100%	10 100%	23 100%	14 100%	4 100%	12 100%	17 100%	12 100%		41 100%	17 100%	24 100%
REASONS														
ENOUGH MONEY AT HOME	16 39%	6 33%	5 38%	5 50%	6 26%	8 57%	2 50%	2 17%	7 41%	7 58%		16 39%	4 24%	12 50%
NO COLLATERAL	10 24%	5 28%	4 31%	1 10%	8 35%	1 7%	1 25%	5 42%	3 18%	2 17%		10 24%	3 18%	7 29%
AFRAID TO BORROW/ CAN'T PAY BACK	8 20%	5 28%	2 15%	1 10%	6 26%	2 14%		3 25%	4 24%	1 8%		8 20%	6 35%	2 8%
DO NOT KNOW HOW TO CONTACT	4 10%	2 11%	2 15%		3 13%	1 7%		3 25%		1 8%		4 10%	2 12%	2 8%
NOT A CUSTOMER OF BANK	3 7%	1 6%	1 8%	1 10%	2 9%	1 7%			3 18%			3 7%		3 13%
OTHERS	2 5%		1 8%	1 10%	1 4%		1 25%	1 8%		1 8%		2 5%	2 12%	
DON'T KNOW	2 5%	1 6%		1 10%	1 4%	1 7%			1 6%	1 8%		2 5%	1 6%	1 4%

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Table 3A
 BETTER SOURCE OF LOAN, REASONS AND AMOUNT OF LOAN
 Base: ALL BORROWING MONEY FROM A BANK/OTHER OFF. SOURCES

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NUN	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	PHUANG EUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUME	KASET WISAI
Total	49	3	1	8	4	5	7	11	10	6	11	12	20
BETTER SOURCE OF LOAN	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OFFICIAL SOURCE	48	3	1	8	4	5	7	11	9	6	11	12	19
NORMAL SOURCE	98%	100%	100%	100%	100%	100%	100%	100%	90%	100%	100%	100%	95%
	1								1				1
	2%								10%				5%
ALL PREFERRING OFFICIAL SOURCE	48	3	1	8	4	5	7	11	9	6	11	12	19
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
REASONS													
LOW INTEREST RATE	45	3	1	8	4	5	7	10	7	6	11	12	16
	94%	100%	100%	100%	100%	100%	100%	91%	78%	100%	100%	100%	84%
FLEXIBLE ON PAYMENT	13			3	1		3	4	2	1	3	4	5
	27%			38%	25%		43%	36%	22%	17%	27%	33%	26%
LONG PAYMENT TERMS	11	1		1		2	3	3	1	1	1	5	4
	23%	33%		13%		40%	43%	27%	11%	17%	9%	42%	21%
CONVENIENT TO BORROW	5	1		1		1			2	1	1	1	2
	10%	33%		13%		20%			22%	17%	9%	8%	11%
OTHERS	5	1					1		3	1		1	3
	10%	33%					14%		33%	17%		8%	16%
AMOUNT OF LOAN (BAHT)													
LESS THAN 5000	14			3	1	1		6	3		4	1	9
	29%			38%	25%	20%		55%	33%		36%	8%	47%
5000 - 9999	23	2		4	2	2	4	4	5	4	5	5	9
	48%	67%		50%	50%	40%	57%	36%	56%	67%	45%	42%	47%
10000 - 14999	5		1	1			2		1	1	1	2	1
	10%		100%	13%			29%		11%	17%	9%	17%	5%
15000 OR MORE	6	1			1	2	1	1		1	1	1	4
	13%	33%			25%	40%	14%	9%		17%	9%	33%	

056

Table 3B
 BETTER SOURCE OF LOAN, REASONS AND AMOUNT OF LOAN
 Base: ALL BORROWING MONEY FROM A BANK/OTHER OFF. SOURCES

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	49	7	22	20	17	17	15	8	20	21	49		20	29
BETTER SOURCE OF LOAN	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X		100X	100X
OFFICIAL SOURCE	48	7	21	20	16	17	15	8	19	21	48		20	28
NORMAL SOURCE	98X	100X	95X	100X	94X	100X	100X	100X	95X	100X	98X		100X	97X
ALL PREFERRING OFFICIAL SOURCE	1		1		1				1		1			1
	2X		5X		6X				5X		2X			3X
REASONS	48	7	21	20	16	17	15	8	19	21	48		20	28
LOW INTEREST RATE	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X		100X	100X
FLEXIBLE ON PAYMENT	45	7	19	19	15	16	14	8	17	20	45		20	25
LONG PAYMENT TERMS	94X	100X	90X	95X	94X	94X	93X	100X	89X	95X	94X		100X	89X
CONVENIENT TO BORROW	13	4	4	5	4	7	2	1	7	5	13		6	7
OTHERS	27X	57X	19X	25X	25X	41X	13X	13X	37X	24X	27X		30X	25X
AMOUNT OF LOAN (BAHT)	11		6	5	3	3	5	1	2	8	11		5	6
LESS THAN 5000	23X		29X	25X	19X	18X	33X	13X	11X	38X	23X		25X	21X
5000 - 9999	5	2	1	2	3	3	2	2		3	5		2	3
10000 - 14999	10X	14X	10X	10X	18X	13X	13X	25X		14X	10X		10X	11X
15000 OR MORE	3	29X	5X	10X	3		13X		3	2	3		1	4
	10X				19X				16X	10X	10X		5X	14X
LESS THAN 5000	14	3	7	4	7	3	4	1	9	4	14		4	10
5000 - 9999	29X	43X	33X	20X	44X	18X	27X	13X	47X	19X	29X		20X	36X
10000 - 14999	23	3	9	11	5	11	7	7	6	10	23		11	12
15000 OR MORE	48X	43X	43X	55X	31X	65X	47X	88X	32X	48X	48X		55X	43X
	5	1	3	1	3	1	1		2	3	5		2	3
	10X	14X	14X	5X	19X	6X	7X		11X	14X	10X		10X	11X
	6		2	4	1	2	3		2	4	6		3	3
	13X		10X	20X	6X	12X	20X		11X	19X	13X		15X	11X

100

Table 4A
PROBLEMS IN GETTING LOAN
 Base: ALL BORROWING MONEY FROM A BANK/OTHER OFF. SOURCES

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
Total		NOM	NONG BUA	NONG TAP THAI	NA MUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- HANNA PHUM	KASET WISAI
Total	49 100%	3 100%	1 100%	8 100%	4 100%	5 100%	7 100%	11 100%	10 100%	6 100%	11 100%	12 100%	20 100%
PROBLEMS													
LOCATION/OFFICE WAS FAR AWAY/REQUIRED A LONG JOURNEY	20 41%	1 33%		4 50%	3 75%	2 40%	4 57%	5 45%	1 10%	2 33%	6 55%	6 50%	6 30%
THERE WERE SPECIAL REQUIREMENTS/COLLATERAL	20 41%	2 67%	1 100%	1 13%	2 50%	4 80%	6 86%	3 27%	1 10%	4 67%	3 27%	10 83%	3 15%
MANY VISITS WERE REQUIRED	13 27%		1 100%		1 25%	3 60%	3 43%	4 36%	1 10%	1 17%	1 9%	6 50%	5 25%
IT TOOK A LONG TIME BEFORE I GOT THE MONEY	13 27%		1 100%	1 13%	1 25%	3 60%	1 14%	5 45%	1 10%	2 33%	1 9%	4 33%	6 30%
I DID NOT GET AS MUCH MONEY AS I WANTED	9 18%	1 33%	1 100%			1 20%	2 29%	3 27%	1 10%	2 33%		3 25%	4 20%
A LOT OF COMPLICATED PAPER WORK REQUIRED	8 16%					3 60%	1 14%	3 27%	1 10%			4 33%	4 20%
I WAS NOT TREATED WELL	6 12%			1 13%		1 20%	2 29%	1 9%	1 10%		1 9%	3 25%	2 10%
I WAS UNAWARE OF THE COSTS/RATES/FEEs	6 12%	1 33%	1 100%		1 25%	3 60%				2 33%	1 9%	3 25%	
I WAS UNAWARE OF THE PAYMENT TERMS	4 8%	1 33%	1 100%			2 40%				2 33%		2 17%	
OTHERS	3 6%	1 33%		1 13%	1 25%					1 17%	2 18%		
NONE	46 94%	2 67%	1 100%	7 88%	3 75%	5 100%	7 100%	11 100%	10 100%	5 83%	9 82%	12 100%	20 100%

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Table 4B
 PROBLEMS IN GETTING LOAN

IN-DEPTH INTERVIEW

Base: ALL BORROWING MONEY FROM A BANK/OTHER OFF. SOURCES

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total:	49 100%	7 100%	22 100%	20 100%	17 100%	17 100%	15 100%	8 100%	20 100%	21 100%	49 100%		20 100%	29 100%
PROBLEMS														
LOCATION/OFFICE WAS FAR AWAY/REQUIRED A LONG JOURNEY	20 41%	2 29%	12 55%	6 30%	9 53%	8 47%	3 20%	2 25%	9 45%	9 43%	20 41%		9 45%	11 38%
THERE WERE SPECIAL REQUIREMENTS/COLLATERAL	20 41%	1 14%	8 36%	11 55%	5 29%	8 47%	7 47%	4 50%	6 30%	10 48%	20 41%		11 55%	9 31%
MANY VISITS WERE REQUIRED	13 27%		8 36%	5 25%	6 35%	4 24%	3 20%	2 25%	5 25%	6 29%	13 27%		7 35%	6 21%
IT TOOK A LONG TIME BEFORE I GOT THE MONEY	13 27%	2 29%	7 32%	4 20%	8 47%	2 12%	3 20%	1 13%	8 40%	4 19%	13 27%		5 25%	8 28%
I DID NOT GET AS MUCH MONEY AS I WANTED	9 18%	1 14%	6 27%	2 10%	4 24%	3 18%	2 13%	2 25%	4 20%	3 14%	9 18%		6 30%	3 10%
A LOT OF COMPLICATED PAPER WORK REQUIRED	8 16%		5 23%	3 15%	4 24%	2 12%	2 13%	1 13%	4 20%	3 14%	8 16%		3 15%	5 17%
I WAS NOT TREATED WELL	6 12%		2 9%	4 20%	2 12%	2 12%	2 13%		1 5%	5 24%	6 12%		3 15%	3 10%
I WAS UNAWARE OF THE COSTS/RATES/FEEES	6 12%		3 14%	3 15%	2 12%	1 6%	3 20%	2 25%	1 5%	3 14%	6 12%		5 25%	1 3%
I WAS UNAWARE OF THE PAYMENT TERMS	4 8%		3 14%	1 5%	2 12%	1 6%	1 7%	2 25%	1 5%	1 5%	4 8%		3 15%	1 3%
OTHERS	3 6%		2 9%	1 5%		3 18%		1 13%	1 5%	1 5%	3 6%		3 15%	
NONE	46 94%	7 100%	20 91%	19 95%	17 100%	14 82%	15 100%	7 88%	19 95%	20 95%	46 94%		17 85%	29 100%

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Table 3A
SOURCES OF LOAN THIS YEAR
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L							A M P H U R				
Total		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAI	SU- WANNA PHUPE	KASET WISAI
Total	90 100X	10 100X	8 100X	11 100X	10 100X	14 100X	8 100X	19 100X	10 100X	19 100X	21 100X	22 100X	28 100X
SOURCES OF LOAN													
BAAC	49 54X	1 10X	2 25X	8 73X	7 70X	5 36X	7 88X	10 52X	9 90X	4 21X	14 67X	12 55X	19 68X
FRIENDS/RELATIVE	7 8X	2 20X				4 29X		1 5X		2 11X		4 18X	1 4X
AG. CO-OP	6 7X	1 10X	2 25X		1 10X			2 11X		3 16X	1 5X		2 7X
COMMERCIAL BANK	2 2X					1 7X			1 10X			1 5X	1 4X
LOCAL MONEY LENDER	2 2X		1 13X				1 13X			1 5X		1 5X	
LOCAL SHOPKEEPER	1 1X							1 5X					1 4X
DON'T KNOW	2 2X					1 7X		1 5X				1 5X	1 4X
ALL WITH LOAN THIS YEAR	68 76X	4 40X	5 63X	8 73X	8 80X	11 79X	8 100X	14 74X	10 100X	10 53X	15 71X	19 86X	24 86X
ALL W/O LOAN THIS YEAR	22 24X	6 60X	3 38X	3 27X	2 20X	3 21X		5 26X		9 47X	6 29X	3 14X	4 14X

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Table 5B
SOURCES OF LOAN THIS YEAR
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	32 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
SOURCES OF LOAN														
BAAC	49 54%	10 40%	20 57%	19 63%	18 45%	18 58%	13 68%	6 30%	23 62%	20 61%	38 78%	11 27%	21 57%	28 53%
FRIENDS/RELATIVE	7 8%	3 12%	3 9%	1 3%	5 13%	2 6%		3 15%	3 8%	1 3%	1 2%	6 15%	2 5%	5 9%
AG. CO-OP	6 7%		5 14%	1 3%	3 8%	3 10%		1 5%	3 8%	2 6%	4 8%	2 5%	3 8%	3 6%
COMMERCIAL BANK	2 2%		1 3%	1 3%	1 3%		1 5%			1 3%	2 4%		1 3%	1 2%
LOCAL MONEY LENDER	2 2%	2 8%			2 5%			1 5%	1 3%			2 5%	2 5%	
LOCAL SHOPKEEPER	1 1%		1 3%		1 3%			1 5%				1 2%		1 2%
DON'T KNOW	2 2%		1 3%	1 3%	1 3%		1 5%			1 3%	2 5%		2 5%	
ALL WITH LOAN THIS YEAR	68 76%	15 60%	30 86%	23 77%	30 75%	23 74%	15 79%	14 70%	29 78%	25 76%	44 90%	24 59%	31 84%	37 70%
ALL W/O LOAN THIS YEAR	22 24%	10 40%	5 14%	7 23%	10 25%	8 26%	4 21%	6 30%	8 22%	8 24%	5 10%	17 41%	6 16%	16 30%

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Table 6A
 INCIDENCE OF BUYING AGRICULTURAL OR OTHER GOODS ON CREDIT TERM AND REASONS FOR NOT GETTING CREDIT
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NDM	NONG BUA	NONG TAP THAI	NA NUAL	BOI PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- HANNA PHUM	KABET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
BUYING AGRICULTURAL OR OTHER GOODS WITH CREDIT													
YES	37 41%	3 30%	5 63%	5 45%	4 40%	6 43%	4 50%	9 47%	1 10%	8 42%	9 43%	11 50%	9 32%
NO	53 59%	7 70%	3 38%	6 55%	6 60%	8 57%	4 50%	10 53%	9 90%	11 58%	12 57%	11 50%	19 68%
ALL NOT GETTING CREDIT	53 100%	7 100%	3 100%	6 100%	6 100%	8 100%	4 100%	10 100%	9 100%	11 100%	12 100%	11 100%	19 100%
REASONS													
NOT NECESSARY	19 36%	4 57%	1 33%	2 33%		2 25%	2 50%	4 40%	4 44%	5 55%	2 17%	3 27%	8 42%
ABLE TO BUY WITH OWN MONEY	18 34%	1 14%	1 33%	3 50%	5 83%	2 25%		4 40%	2 22%	2 18%	8 67%	2 18%	6 32%
BORROWED MONEY INSTEAD	6 11%	1 14%			1 17%	1 13%	1 25%	1 10%	1 11%	1 9%	1 8%	2 18%	2 11%
EXPENSIVE	4 8%			1 17%			1 25%		2 22%		1 8%	1 9%	2 11%
OTHERS	4 8%		1 33%			3 38%				1 9%		3 27%	
DON'T KNOW	2 4%	1 14%						1 10%		1 9%			1 5%

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Table 6B
 INCIDENCE OF BUYING AGRICULTURAL OR OTHER GOODS ON CREDIT TERM AND REASONS FOR NOT GETTING CREDIT
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
BUYING AGRICULTURAL OR OTHER GOODS WITH CREDIT														
YES	37 41%	12 48%	13 37%	12 40%	17 43%	12 39%	8 42%	13 65%	14 38%	10 30%	20 41%	17 41%	37 100%	
NO	53 59%	13 52%	22 63%	18 60%	23 58%	19 61%	11 58%	7 35%	23 62%	23 70%	29 59%	24 59%		53 100%
ALL NOT GETTING CREDIT	53 100%	13 100%	22 100%	18 100%	23 100%	19 100%	11 100%	7 100%	23 100%	23 100%	29 100%	24 100%		53 100%
REASONS														
NOT NECESSARY	19 36%	4 31%	9 41%	6 33%	6 26%	8 42%	5 45%	2 29%	8 35%	9 29%	13 45%	6 25%		19 36%
ABLE TO BUY WITH OWN MONEY	18 34%	4 31%	8 36%	6 33%	9 39%	5 26%	4 36%	1 14%	9 39%	8 35%	9 31%	9 38%		18 34%
BORROWED MONEY INSTEAD	6 11%	1 8%	1 5%	4 22%	1 4%	4 21%	1 9%	1 14%	1 4%	4 17%	3 10%	3 13%		6 11%
EXPENSIVE	4 8%	2 15%	1 5%	1 6%	3 13%	1 5%			3 13%	1 4%	3 10%	1 4%		4 8%
OTHERS	4 8%	1 8%	2 9%	1 6%	2 9%	1 5%	1 9%	2 29%	1 4%	1 4%	1 3%	3 13%		4 8%
DON'T KNOW	2 4%	1 8%	1 5%		2 9%			1 14%	1 4%			2 8%		2 4%

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Table 7A
 TYPE OF GOODS AND SOURCES OF OUTLET BUYING ON CREDIT TERM
 Base: ALL BUYING AG. /OTHER GOODS WITH CREDIT

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR FAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJBA- MART	PANOM PRAT	SU- WANNA PHUM	KASET WISAI
Total	37 100%	3 100%	5 100%	5 100%	4 100%	6 100%	4 100%	9 100%	1 100%	8 100%	9 100%	11 100%	9 100%
<u>TYPE OF GOODS</u>													
FERTILIZER	22 59%	2 67%	5 100%	4 80%	3 75%	3 50%	2 50%	2 22%	1 100%	8 100%	6 67%	5 45%	3 33%
PESTICIDES	9 24%	1 33%	5 100%	2 40%				1 11%		7 88%	1 11%		1 11%
HOUSEHOLD DURABLES	8 22%	1 33%		2 40%		2 33%		3 33%			3 33%	3 27%	2 22%
WATER STORAGE JARS/CONTAINERS	3 8%	1 33%					1 25%	1 11%			1 11%	1 9%	1 11%
FARM EQUIPMENT	3 8%					2 33%	1 25%					3 27%	
FOOD AND GROCERIES	2 5%				1 25%		1 25%				1 11%	1 9%	
OTHERS	7 19%	2 67%	1 20%				1 25%	3 33%		2 25%	1 11%	1 9%	3 33%
<u>SOURCES OF OUTLET</u>													
RETAIL SHOP	20 54%	2 67%	5 100%	4 80%	3 75%	1 17%	1 25%	4 44%		8 100%	6 67%	2 18%	4 44%
TRAVELLING MERCHANT	10 27%	1 33%		1 20%		3 50%		5 56%			2 22%	4 36%	4 44%
BAAC	7 19%			2 40%	1 25%	2 33%	2 50%			1 13%	2 22%	4 36%	
OTHERS	4 11%					1 17%	2 50%		1 100%			3 27%	1 11%

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Table 7B
 TYPE OF GOODS AND SOURCES OF OUTLET BUYING ON CREDIT TERM
 Base: ALL BUYING AG./OTHER GOODS WITH CREDIT

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUH.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG./OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	37 100%	12 100%	13 100%	12 100%	17 100%	12 100%	8 100%	13 100%	14 100%	10 100%	20 100%	17 100%	37 100%	
TYPE OF GOODS														
FERTILIZER	22 59%	6 50%	7 54%	9 75%	9 53%	7 58%	6 75%	6 46%	9 64%	7 70%	12 60%	10 59%	22 59%	
PESTICIDES	9 24%	6 50%	3 23%		8 47%	1 8%		3 23%	6 43%		3 15%	6 35%	9 24%	
HOUSEHOLD DURABLES	8 22%	2 17%	2 15%	4 33%	3 18%	1 8%	4 50%	4 31%	1 7%	3 30%	4 20%	4 24%	8 22%	
WATER STORAGE JARS/CONTAINERS	3 8%	1 8%	1 8%	1 8%	1 6%	1 8%	1 13%			3 30%	2 10%	1 6%	3 8%	
FARM EQUIPMENT	3 8%	1 8%	1 8%	1 8%	1 6%	2 17%		2 15%		1 10%	1 5%	2 12%	3 8%	
FOOD AND GROCERIES	2 5%	1 8%	1 8%		1 6%	1 8%			2 14%		1 5%	1 6%	2 5%	
OTHERS	7 19%	3 25%	3 23%	1 8%	5 29%	1 8%	1 13%	2 15%	4 29%	1 10%	3 15%	4 24%	7 19%	
SOURCES OF OUTLET														
RETAIL SHOP	20 54%	9 75%	7 54%	4 33%	12 71%	7 58%	1 13%	8 62%	10 71%	2 20%	9 45%	11 65%	20 54%	
TRAVELLING MERCHANT	10 27%	1 8%	5 38%	4 33%	3 18%	3 25%	4 50%	5 38%	2 14%	3 30%	5 25%	5 29%	10 27%	
BAAC	7 19%	3 25%		4 33%	3 18%		4 50%	1 8%	2 14%	4 40%	5 25%	2 12%	7 19%	
OTHERS	4 11%	1 8%	1 8%	2 17%	1 6%	2 17%	1 13%		1 7%	3 30%	4 20%		4 11%	

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Table BA
 PRACTICE AND ATTITUDE TOWARDS BUYING GOODS ON CREDIT TERM AND REASONS
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NON	NONO BUA	NONO TAP TISI	NA NUAL	SOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANDH PRAT	SU- WANNA PHUME	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
IS IT A NORMAL PRACTICE													
YES	65 72%	9 90%	8 100%	7 64%	5 50%	13 93%	6 75%	13 68%	4 40%	18 95%	12 57%	19 86%	16 57%
NO	25 28%	1 10%		4 36%	5 50%	1 7%	2 25%	6 32%	6 60%	1 5%	9 43%	3 14%	12 43%
CONDITION OF CREDIT TERM													
FAIR	33 37%	5 50%	4 50%	3 27%	4 40%	7 50%	3 38%	5 26%	2 20%	10 53%	7 33%	9 41%	7 25%
NOT FAIR	57 63%	5 50%	4 50%	8 73%	6 60%	7 50%	5 63%	14 74%	8 80%	9 47%	14 67%	13 59%	21 75%
ALL WITH POSITIVE ATTITUDE ON CREDIT TERM	33 100%	5 100%	4 100%	3 100%	4 100%	7 100%	3 100%	5 100%	2 100%	10 100%	7 100%	9 100%	7 100%
REASONS													
SAME PRICE AS FOR CASH PURCHASE CONTRACT MADE	18 55%	1 20%	1 25%	1 33%		7 100%	3 100%	3 60%	2 100%	3 30%	1 14%	9 100%	5 71%
PAYMENT TERMS LONG	6 18%	2 40%	2 50%	1 33%	1 25%					4 40%	2 29%		
OTHERS	4 12%	1 20%				1 14%	2 67%			2 20%		2 22%	
DON'T KNOW	6 18%	1 20%		1 33%	2 50%			1 20%	1 50%	1 10%	3 43%		2 29%
ALL WITH NEGATIVE ATTITUDE ON CREDIT TERM	3 9%		1 25%	1 25%	1 25%			1 20%		1 10%	1 14%		1 14%
ALL WITH NEGATIVE ATTITUDE ON CREDIT TERM	57 100%	5 100%	4 100%	8 100%	6 100%	7 100%	5 100%	14 100%	8 100%	9 100%	14 100%	13 100%	21 100%
REASONS													
MORE EXPENSIVE THAN CASH PRICE HIGH INTEREST RATES	33 58%	2 40%	2 50%	5 63%	2 33%	4 57%	3 60%	12 86%	3 38%	4 44%	7 50%	8 62%	14 67%
OTHERS	24 42%	4 80%	2 50%	3 38%	4 67%	1 14%	2 40%	3 21%	5 63%	6 67%	7 50%	3 23%	8 38%
DON'T KNOW	4 7%			1 13%	1 14%	1 14%		1 7%	1 13%		1 7%	1 8%	2 10%
	2 4%		1 25%		1 14%	1 14%				1 11%		1 8%	

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Table 8B
IN-DEPTH INTERVIEW
PRACTICE AND ATTITUDE TOWARDS BUYING GOODS ON CREDIT TERM AND REASONS
 Base: ALL RESPONDENTS

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
IS IT A NORMAL PRACTICE	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
YES	65	21	24	20	29	25	11	17	28	20	32	33	31	34
NO	25	4	11	10	11	6	8	85X	76X	61X	65X	60X	64X	64X
	28X	16X	31X	33X	28X	19X	42X	15X	24X	39X	35X	20X	6	19
													16X	36X
CONDITION OF CREDIT TERM														
FAIR	33	8	12	13	13	13	7	9	12	12	16	17	15	18
NOT FAIR	37	32X	34X	43X	33X	42X	37X	45X	32X	36X	33X	41X	41X	34X
	63X	17	23	17	27	18	12	11	25	21	33	24	22	35
		68X	66X	57X	68X	58X	63X	55X	68X	64X	67X	59X	59X	66X
ALL WITH POSITIVE ATTITUDE ON CREDIT TERM	33	8	12	13	13	13	7	9	12	12	16	17	15	18
	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
REASONS														
SAME PRICE AS FOR CASH PURCHASE CONTRACT MADE	18	3	8	7	6	8	4	5	5	8	11	7	8	10
	35X	38X	67X	54X	46X	62X	57X	56X	42X	67X	69X	41X	53X	56X
PAYMENT TERMS LONG	6	2	1	3	3	2	1	2	2	2	1	5	2	4
	18X	25X	8X	23X	23X	15X	14X	22X	17X	17X	6X	29X	13X	22X
OTHERS	4	2	1	1	2	2		2	1	1	3	1	3	1
	12X	25X	8X	8X	15X	15X		22X	8X	8X	19X	5X	20X	6X
DON'T KNOW	6	2	2	2	2	2	2		4	2	3	3	3	3
	18X	25X	17X	15X	15X	15X	29X		32X	17X	19X	18X	20X	17X
ALL WITH NEGATIVE ATTITUDE ON CREDIT TERM	3	1	1	1	2	1		1	1	1	1	2	2	1
	9X	13X	8X	8X	15X	8X		11X	8X	8X	6X	12X	13X	6X
REASONS														
MORE EXPENSIVE THAN CASH PRICE	33	12	13	8	15	8	6	8	14	11	21	12	12	21
	58X	71X	57X	47X	70X	44X	50X	73X	56X	52X	64X	50X	55X	60X
HIGH INTEREST RATES	24	8	9	7	9	9	6	5	9	10	11	13	7	17
	42X	47X	39X	41X	33X	50X	50X	45X	36X	48X	33X	54X	32X	49X
OTHERS	4	1	2	1	2	2		1	2	1	3	1	3	1
	7X	6X	9X	6X	7X	11X		9X	8X	5X	9X	4X	14X	3X
DON'T KNOW	2		1	1	1	1			2		1	1	1	1
	4X		4X	6X	4X	6X			8X		3X	4X	5X	3X

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Table 9A
 THINGS WOULD DO IF CREDIT TERM NOT ALLOWED
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
	Total	NDM	NDNG BUA	NDNG TAP THAI	NA MIAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAI	SU- NANNA FRUNE	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
THINGS WOULD DO													

DON'T BUY AT ALL	30 33%	3 30%	3 38%	4 36%	2 20%	4 29%	2 25%	8 42%	4 40%	5 26%	7 33%	5 27%	12 43%
BUY WITH CASH	26 29%	4 40%	2 25%	1 9%	6 60%	5 36%	2 25%	6 32%		7 37%	7 33%	6 27%	6 21%
BORROW/CASH FROM SOMEWHERE	23 26%	2 20%	1 13%	3 27%	2 20%	4 29%	4 50%	6 32%	1 10%	3 16%	5 24%	9 41%	6 21%
BAAC	10 11%			1 9%				2 11%	5 50%		1 5%	2 9%	7 25%
OTHERS	3 3%	1 10%		1 9%		1 7%				1 5%	1 5%	1 5%	
DON'T KNOW	5 6%	1 10%	2 25%	1 9%		1 7%				4 21%		1 5%	

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Table 9B
 THINGS WOULD DO IF CREDIT TERM NOT ALLOWED
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000-	7000-14999	15000+	YES	NO	YES	NO
		100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
THINGS WOULD DO														

DON'T BUY AT ALL	30	8	13	9	12	8	10	8	10	12	18	12	15	15
	33X	32X	37X	30X	30X	26X	53X	40X	27X	36X	37X	29X	41X	28X
BUY WITH CASH	26	5	9	12	10	12	4	4	13	9	11	19	8	18
	29X	20X	26X	40X	25X	39X	21X	20X	35X	27X	22X	37X	22X	34X
BORROW/CASH FROM SOMEWHERE	23	11	7	5	15	6	2	6	11	6	11	12	13	10
	26X	44X	20X	17X	38X	19X	11X	30X	30X	18X	22X	29X	35X	19X
BAAC	10	2	4	4	4	4	2		4	6	9	1	3	7
	11X	8X	11X	13X	10X	13X	11X		11X	18X	18X	2X	8X	13X
OTHERS	3	1	2		1	2		2	1		1	2	1	2
	3X	4X	6X		3X	6X		10X	3X		2X	5X	3X	4X
DON'T KNOW	5	3	1	1	4		1	2	2	1	3	2	3	2
	6X	12X	3X	3X	10X		5X	10X	5X	3X	6X	5X	8X	4X

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Table 10A
SOURCES OF FERTILIZER LAST YEAR
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA	AJSA- HART	PANDH PRAI	SU- WANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
SOURCES OF FERTILIZER													
AT FERTILIZER/ AG. CHEM SHOP	59 66%	9 90%	5 63%	6 55%	9 90%	9 64%	4 50%	11 58%	6 60%	14 74%	16 76%	12 55%	17 61%
FROM BANK FOR AGRI. AND AGRI. CO-OP	15 17%	1 10%	2 25%	4 36%	2 20%	2 14%		1 5%	3 30%	4 21%	5 24%	2 9%	4 14%
MARKETING ORGANIZATION FOR FARMERS	10 11%					2 14%	4 50%	1 5%	3 30%			6 27%	4 14%
FROM AG. EXT.	6 7%			1 9%		1 7%		4 21%			1 5%	1 5%	4 14%
AG. CO-OP	3 3%		1 13%			1 7%		1 5%		1 5%		1 5%	1 4%
USE OWN ORGANIC FERTILIZER	1 1%							1 5%					1 4%
OTHERS	1 1%							1 5%				1 5%	
ALL NOT BUYING FERTILIZER	7 8%			1 9%		1 7%		5 26%			1 5%	1 5%	5 18%
WILL USE FERTILIZER	7 8%			1 9%		1 7%		5 26%			1 5%	1 5%	5 18%

Table 10B
SOURCES OF FERTILIZER LAST YEAR
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
SOURCES OF FERTILIZER														
AT FERTILIZER/ AG. CHEM SHOP	59 66%	20 80%	23 66%	16 53%	29 73%	21 68%	9 47%	16 80%	21 57%	22 67%	27 55%	32 78%	22 59%	37 70%
FROM BANK FOR AGRI. AND AGRI. CO-OP	15 17%	1 4%	7 20%	7 23%	3 8%	7 23%	5 26%	2 10%	7 19%	6 18%	11 22%	4 10%	5 14%	10 19%
MARKETING ORGANIZATION FOR FARMERS	10 11%	1 4%	2 6%	7 23%	2 5%	3 10%	5 26%		4 11%	6 18%	9 18%	1 2%	5 14%	5 9%
FROM AG. EXT.	6 7%	3 12%	2 6%	1 3%	3 8%	2 6%	1 5%	1 5%	4 11%	1 3%	4 8%	2 5%	3 8%	3 6%
AG. CO-OP	3 3%		2 6%	1 3%	2 5%	1 3%			3 8%		1 2%	2 5%	2 5%	1 2%
USE OWN ORGANIC FERTILIZER	1 1%		1 3%		1 3%			1 5%				1 2%	1 3%	
OTHERS	1 1%			1 3%			1 5%		1 3%		1 2%		1 3%	
ALL NOT BUYING FERTILIZER	7 8%	3 12%	3 9%	1 3%	4 10%	2 6%	1 5%	2 10%	4 11%	1 3%	4 8%	3 7%	4 11%	3 6%
WILL USE FERTILIZER	7 8%	3 12%	3 9%	1 3%	4 10%	2 6%	1 5%	2 10%	4 11%	1 3%	4 8%	3 7%	4 11%	3 6%

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Table 11A
 IN-DEPTH INTERVIEW
 DIFFERENCE IN USING FERTILIZER AND REASONS FOR SAYING DIFFERENCE
 Base: ALL RESPONDENTS

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	HUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
ANY DIFFERENCE IN USING FERTILIZER -----													
YES	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
REASONS -----													
HIGHER YIELD	71 79%	9 90%	5 63%	9 82%	10 100%	10 71%	6 75%	13 68%	9 90%	13 68%	20 95%	17 77%	21 75%
HEALTHY PLANTS	34 38%	1 10%	6 75%	4 36%	1 10%	5 36%	3 38%	12 63%	2 20%	9 47%	4 19%	7 32%	14 50%
SOIL REMAINS FERTILE	9 10%	1 10%	1 13%			3 21%	3 38%	1 5%		1 5%	1 5%	6 27%	1 4%

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Table 11B
 DIFFERENCE IN USING FERTILIZER AND REASONS FOR SAYING DIFFERENCE
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ANY DIFFERENCE IN USING FERTILIZER														
YES	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
REASONS														
HIGHER YIELD	71	19	27	25	30	24	17	14	28	29	39	32	27	44
	79%	76%	77%	83%	75%	77%	89%	70%	76%	88%	80%	78%	73%	83%
HEALTHY PLANTS	34	12	14	8	17	13	4	11	15	8	19	15	16	18
	38%	48%	40%	27%	43%	42%	21%	55%	41%	24%	39%	37%	43%	34%
SOIL REMAINS FERTILE	9	3	4	2	4	3	2	2	2	5	4	5	5	4
	10%	12%	11%	7%	10%	10%	11%	10%	5%	15%	8%	12%	14%	8%

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Table 12A
 WHETHER FERTILIZER USED REGULARLY OR NOT AND REASONS FOR USING REGULARLY
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
Total		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOH PRAI	SU- WANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
<u>USING FERTILIZER REGULARLY</u>													
YES	89 99%	9 90%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	18 95%	21 100%	22 100%	28 100%
NO	1 1%	1 10%								1 5%			
ALL USING FERTILIZER REGULARLY	89 100%	9 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	18 100%	21 100%	22 100%	28 100%
<u>REASONS</u>													
HIGHER YIELD	58 65%	7 78%	4 50%	4 36%	9 90%	9 64%	6 75%	10 53%	9 90%	12 67%	12 57%	16 73%	18 64%
WANT HEALTH PLANTS	28 31%		4 50%	7 64%	1 10%	7 50%	1 13%	7 37%	1 10%	5 28%	8 38%	8 36%	7 25%
WANT SOIL TO BE FERTILE	16 18%	2 22%	1 13%	1 9%	1 10%	4 29%	1 13%	5 26%	1 10%	2 11%	3 14%	5 23%	6 21%
OTHERS	3 3%		1 13%		1 10%			1 5%		1 6%	1 5%		1 4%

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Table 12B
 WHETHER FERTILIZER USED REGULARLY OR NOT AND REASONS FOR USING REGULARLY
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%

USING FERTILIZER REGULARLY														
YES	89 99%	25 100%	34 97%	30 100%	40 100%	30 97%	19 100%	19 95%	37 100%	33 100%	48 98%	41 100%	36 97%	53 100%
NO	1 1%		1 3%			1 3%		1 5%			1 2%		1 3%	
ALL USING FERTILIZER REGULARLY	89 100%	25 100%	34 100%	30 100%	40 100%	30 100%	19 100%	19 100%	37 100%	33 100%	48 100%	41 100%	36 100%	53 100%

REASONS														
HIGHER YIELD	58 65%	15 60%	21 62%	22 73%	21 53%	24 80%	13 68%	7 37%	26 70%	25 76%	32 67%	26 63%	21 58%	37 70%
WANT HEALTH PLANTS	28 31%	10 40%	12 35%	6 20%	14 35%	8 27%	6 32%	12 63%	12 32%	4 12%	15 31%	13 32%	16 44%	12 23%
WANT SOIL TO BE FERTILE	16 18%	2 8%	7 21%	7 23%	7 18%	5 17%	4 21%	3 16%	6 16%	7 21%	8 17%	8 20%	7 19%	9 17%
OTHERS	3 3%	1 4%	1 3%	1 3%	2 5%		1 5%	2 11%		1 3%	1 2%	2 5%	1 3%	2 4%

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Table 13A
SOURCE OF SEEDS LAST YEAR AND TERM OF PAYMENT
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA	AJSA- KART	PANOM PRAI	SU- WANNA PHUME	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
SOURCE OF SEEDS													
USE OWN SEEDS	70 78%	8 80%	5 63%	9 82%	9 90%	11 79%	7 88%	14 74%	7 70%	14 74%	18 86%	18 82%	20 71%
AT SEED/AG. CHEM SHOP	18 20%	2 20%	4 50%	2 18%		5 36%	2 25%	2 11%	1 10%	6 32%	2 10%	7 32%	3 11%
FROM AG. EXT	15 17%		1 13%	1 9%	1 10%	1 7%		8 42%	3 30%	1 5%	2 10%	1 5%	11 39%
ALL BUYING SEEDS	18 100%	2 100%	4 100%	2 100%		5 100%	2 100%	2 100%	1 100%	6 100%	2 100%	7 100%	3 100%
TERM OF PAYMENT													
CASH	14 78%	1 50%	3 75%	2 100%		5 100%	2 100%		1 100%	4 67%	2 100%	7 100%	1 33%
DON'T KNOW	4 22%	1 50%	1 25%					2 100%		2 33%			2 67%

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IN-DEPTH INTERVIEW

Table 13B
SOURCE OF SEEDS LAST YEAR AND TERM OF PAYMENT
Base: ALL RESPONDENTS

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
SOURCE OF SEEDS														
USE OWN SEEDS	70 78%	18 72%	28 80%	24 80%	30 75%	24 77%	16 84%	18 90%	28 76%	24 73%	39 80%	31 76%	32 85%	38 72%
AT SEED/AG. CHEM SHOP	18 20%	7 28%	5 14%	6 20%	11 28%	3 10%	4 21%	3 15%	6 16%	9 27%	8 16%	10 24%	8 22%	10 19%
FROM AG. EXT	15 17%	6 24%	6 17%	3 10%	7 18%	6 19%	2 11%	2 10%	9 24%	4 12%	9 18%	6 15%	4 11%	11 21%
ALL BUYING SEEDS	18 100%	7 100%	5 100%	6 100%	11 100%	3 100%	4 100%	3 100%	6 100%	9 100%	8 100%	10 100%	8 100%	10 100%
TERM OF PAYMENT														
CASH	14 78%	4 57%	4 80%	6 100%	8 73%	2 67%	4 100%	2 67%	3 50%	9 100%	8 100%	6 60%	6 75%	8 80%
DON'T KNOW	4 22%	3 43%	1 20%		3 27%	1 33%		1 33%	3 50%			4 40%	2 25%	2 20%

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Table 14A
 KINDS OF SEEDS USED AND PROBLEMS WITH SEEDS USED LAST YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NUM	NONG BUA	NONG TAP THAI	NA NUAI	BOR PAN KAN	HIN KONG	LAG LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- HANNA PHUHE	KAGET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
KINDS OF SEEDS USED LAST YEAR													
RD 6	53 59%	4 40%	7 88%	7 64%	8 80%	9 64%	3 38%	10 53%	5 50%	12 63%	15 71%	11 50%	15 54%
GLUTINOUS	22 24%	3 30%	3 38%	3 27%	4 40%	2 14%		3 16%	4 40%	6 32%	7 33%	2 9%	7 25%
OTHERS HYV	49 54%	4 40%	2 25%	3 27%	10 100%	10 71%	4 50%	9 47%	7 70%	8 42%	12 57%	13 59%	16 57%
OTHER RICE STRAIN	29 32%		4 50%	5 45%		3 21%	5 63%	9 47%	3 30%	5 26%	4 19%	9 41%	11 39%
VEGETABLES	31 34%	3 30%	7 88%	2 18%	1 10%	2 57%	2 25%	6 32%	2 20%	9 47%	4 19%	11 50%	7 25%
TOBACCO	7 8%		6 75%	1 9%						6 32%	1 5%		
PROBLEMS WITH SEEDS USED LAST YEAR													
LOW GERMINATION RATE	16 18%	1 10%	3 38%	2 18%	1 10%	4 29%	1 13%	4 21%		4 21%	3 14%	5 23%	4 14%
PESTS	13 14%		3 38%	1 9%	1 10%	6 43%	1 13%	1 5%		3 16%	2 10%	7 32%	1 4%
RICE GRAIN LEAN	8 9%	1 10%			1 10%	1 7%		5 26%		1 5%	1 5%	1 5%	5 18%
DROUGHT	7 8%		1 13%	1 9%		1 7%		4 21%		1 5%	1 5%	1 5%	4 14%
USE HYBRIDS	6 7%					1 7%	1 13%	2 11%	2 20%			2 9%	4 14%
RICE DISEASES	3 3%					2 14%		1 5%				2 9%	1 4%
OTHERS	5 6%	1 10%	1 13%			2 14%		1 5%		2 11%		2 9%	1 4%
NONE	47 52%	11 110%	2 25%	7 64%	8 80%	2 14%	6 75%	6 32%	8 80%	11 58%	15 71%	8 36%	13 46%

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Table 14B
 KINDS OF SEEDS USED AND PROBLEMS WITH SEEDS USED LAST YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AD. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000-	7000- 14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
KINDS OF SEEDS USED LAST YEAR	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RD 6	53 59%	13 52%	22 63%	18 60%	23 58%	19 61%	11 58%	14 70%	19 51%	20 61%	29 59%	24 59%	23 62%	30 57%
GLUTINOUS	22 24%	4 16%	11 31%	7 23%	9 23%	10 32%	3 16%	6 30%	10 27%	6 18%	10 20%	12 29%	9 24%	13 25%
OTHERS HYV	49 54%	10 40%	20 57%	19 63%	18 45%	20 65%	11 58%	8 40%	17 46%	24 73%	28 57%	21 51%	17 46%	32 60%
OTHER RICE STRAIN	29 32%	10 40%	8 23%	11 37%	13 33%	8 26%	8 42%	5 25%	15 41%	9 27%	20 41%	9 22%	14 38%	15 28%
VEGETABLES	31 34%	9 36%	11 31%	11 37%	17 43%	6 19%	8 42%	4 20%	14 38%	13 39%	16 33%	15 37%	14 38%	17 32%
TOBACCO	7 8%	4 16%	3 9%		6 15%	1 3%		3 15%	4 11%		1 2%	6 15%	5 14%	2 4%
PROBLEMS WITH SEEDS USED LAST YEAR														
LOW GERMINATION RATE	16 18%	6 24%	8 23%	2 7%	11 28%	3 10%	2 11%	2 10%	8 22%	6 18%	6 12%	10 24%	6 16%	10 19%
PESTS	13 14%	2 8%	6 17%	5 17%	5 13%	7 23%	1 5%	4 20%	6 16%	3 9%	5 10%	8 20%	7 19%	6 11%
RICE GRAIN LEAN	8 9%	6 24%	1 3%	1 3%	6 15%	1 3%	1 5%	3 15%	4 11%	1 3%	4 8%	4 10%	5 14%	3 6%
DROUGHT	7 8%	4 16%	2 6%	1 3%	5 13%	1 3%	1 5%	3 15%	3 8%	1 3%	4 8%	3 7%	4 11%	3 6%
USE HYBRIDS	6 7%	2 8%	4 11%		2 5%	3 10%	1 5%	2 10%	3 8%	1 3%	3 6%	3 7%	1 3%	5 9%
RICE DISEASES	3 3%		2 6%	1 3%	1 3%	2 6%		2 10%	1 3%			3 7%	2 5%	1 2%
OTHERS	5 6%	1 4%	3 9%	1 3%	1 3%	3 10%	1 5%	2 10%	1 3%	2 6%	3 6%	2 5%	3 8%	2 4%
NONE	47 52%	11 44%	14 40%	22 73%	18 45%	15 48%	14 74%	9 40%	16 43%	23 70%	30 61%	17 41%	18 49%	29 55%

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Table 15A
 VALUE FOR MONEY OF SEEDS USED LAST YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
RD 6	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
GOOD VALUE	42	4	6	6	7	6	2	6	5	11	13	7	11
	47%	40%	75%	55%	70%	43%	25%	32%	50%	58%	62%	32%	39%
NOT GOOD VALUE	11		1	1	1	3	1	4		1	2	4	4
	12%		13%	9%	10%	21%	13%	21%		5%	10%	18%	14%
GLUTINOUS													
GOOD VALUE	18	3	3	3	4	1			4	6	7	1	4
	20%	30%	38%	27%	40%	7%			40%	32%	33%	5%	14%
NOT GOOD VALUE	4					1		3				1	3
	4%					7%		16%				5%	11%
OTHERS HYV													
GOOD VALUE	36	4	1	1	9	6	3	5	7	6	10	8	12
	40%	40%	13%	9%	90%	43%	38%	26%	70%	32%	48%	36%	43%
NOT GOOD VALUE	13		1	2	1	4	1	4		2	2	5	4
	14%		13%	18%	10%	29%	13%	21%		11%	10%	23%	14%
OTHERS RICE STRAIN													
GOOD VALUE	19		4	4		3	2	3	3	5	3	5	6
	21%		50%	36%		21%	25%	16%	30%	26%	14%	23%	21%
NOT GOOD VALUE	10			1			3	6			1	4	5
	11%			9%			38%	32%			5%	18%	18%
VEGETABLES													
GOOD VALUE	25	3	6	2		6	2	4	2	8	3	9	5
	28%	30%	75%	18%		43%	25%	21%	20%	42%	14%	41%	18%
NOT GOOD VALUE	6		1		1	2		2		1	1	2	2
	7%		13%		10%	14%		11%		5%	5%	9%	7%
TOBACCO													
GOOD VALUE	5		4	1						4	1		
	6%		50%	9%						21%	5%		
NOT GOOD VALUE	2		2							2			
	2%		25%							11%			

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Table 15B
 VALUE FOR MONEY OF SEEDS USED LAST YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		40	40-49	50+	40	40-49	50+	7000	14999	15000+				
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
RD 6	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
GOOD VALUE	42	8	20	14	18	16	8	11	15	16	23	19	17	25
NOT GOOD VALUE	11	5	2	4	5	3	3	3	4	4	6	5	6	5
CLUTINOUS	12%	20%	6%	13%	13%	10%	16%	15%	11%	12%	12%	12%	16%	9%
GOOD VALUE	18	4	7	7	7	8	3	4	8	6	8	10	6	12
NOT GOOD VALUE	4		4		2	2		2	2		2	2	3	1
OTHERS HYV	4%		11%		5%	6%		10%	5%		4%	5%	8%	2%
GOOD VALUE	36	7	14	15	13	15	8	4	12	20	21	15	9	27
NOT GOOD VALUE	13	3	6	4	5	5	3	4	5	4	7	6	8	5
OTHERS RICE STRAIN	14%	12%	17%	13%	13%	16%	16%	20%	14%	12%	14%	15%	22%	9%
GOOD VALUE	19	6	6	7	8	7	4	4	10	5	13	6	8	11
NOT GOOD VALUE	10	4	2	4	5	1	4	1	5	4	7	3	6	4
VEGETABLES	11%	16%	6%	13%	13%	3%	21%	5%	14%	12%	14%	7%	16%	8%
GOOD VALUE	25	7	9	9	14	4	7	3	11	11	14	11	11	14
NOT GOOD VALUE	6	2	2	2	3	2	1	1	3	2	2	4	3	3
TOBACCO	7%	8%	6%	7%	8%	6%	5%	5%	8%	6%	4%	10%	8%	6%
GOOD VALUE	5	2	3		4	1		1	4		1	4	4	1
NOT GOOD VALUE	2	2			2			2			2		1	
	2%	8%			5%			10%	11%		5%		3%	2%

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Table 16A
 KINDS OF SEEDS PLANNED TO USE AND SOURCE OF SEEDS THIS YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN NONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHRME	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
KINDS OF SEEDS PLANNED TO USE	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RD 6	48	4	5	6	8	7	3	11	4	9	14	10	15
OTHER HYV	53%	40%	63%	55%	80%	50%	38%	58%	40%	47%	67%	45%	54%
VEGETABLES	42	2	1	2	10	7	3	9	8	4	11	10	17
OTHER RICE STRAIN	47%	20%	13%	18%	100%	50%	38%	47%	80%	4	11	10	17
GLUTINOUS	33	3	7	3	1	8	4	5	2	21%	52%	45%	61%
TOBACCO	37%	30%	88%	27%	10%	57%	50%	26%	20%	9	5	13	6
DON'T KNOW	28		5	5		3	3	8	4	47%	24%	59%	21%
OTHER SOURCE OF SEEDS AWARE OF	31%		63%	45%		21%	38%	42%	40%	6	4	6	12
USE OWN SEEDS	19	2	3	2	4	2		3	3	32%	19%	27%	43%
AT SEED/AG. CHEM SHOP	21%	20%	38%	18%	40%	14%		16%	30%	5	6	2	6
FROM AG. EXT	5		4	1						4	1	1	1
OTHERS	6%		50%	9%						21%	5%		21%
OTHER SOURCE OF SEEDS AWARE OF	3	1				2				2		1	
DISTRICT AGRICULTURAL OFFICER	3%	10%				14%				11%		5%	
RETAIL SHOP	1												4%
AG CO-OP	1%												1%
OTHERS	1%												1%
NONE	32												4%
DON'T KNOW	36%	5	4	6	1	7	3	5	2	9	7	10	6
	19	2	1	4	10%	50%	38%	21%	20%	47%	33%	45%	21%
	21%	20%	13%	36%		14%	13%	26%	40%	3	4	3	7
										16%	19%	14%	32%

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Table 16B
 KINDS OF SEEDS PLANNED TO USE AND SOURCE OF SEEDS THIS YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
KINDS OF SEEDS PLANNED TO USE	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
RD 5	48	13	19	16	21	17	10	12	16	20	27	21	19	29
OTHER HYV	53%	52%	54%	53%	53%	55%	53%	60%	43%	61%	55%	51%	51%	55%
VEGETABLES	42	8	20	14	16	18	8	6	16	20	24	16	15	27
OTHER RICE STRAIN	47%	32%	57%	47%	40%	58%	42%	30%	43%	61%	53%	39%	41%	51%
GLUTINOUS	33	12	9	12	18	6	9	6	14	13	16	17	16	17
TOBACCO	37%	48%	26%	40%	45%	19%	47%	30%	38%	39%	33%	41%	43%	32%
DON'T KNOW	28	11	7	10	14	8	6	5	16	7	18	10	14	14
	31%	44%	20%	33%	35%	26%	32%	25%	43%	21%	37%	24%	38%	26%
	19	2	11	6	7	10	2	5	9	5	9	10	8	11
	5	4	1	1	4	1	1	3	2	15%	18%	24%	22%	21%
	6%	16%	3%	20%	18%	32%	11%	25%	24%	15%	18%	24%	22%	21%
	3		1		10%	3%		3			5		3	2
	3%		3%	7%	3%	3%	5%	5%	3%	3%	2%	5%	8%	4%
SOURCE OF SEEDS														
USE OWN SEEDS	73	19	29	25	31	26	16	18	26	29	40	33	33	40
AT SEED/AG. CHEM SHOP	81%	76%	83%	83%	78%	84%	84%	90%	70%	88%	82%	80%	89%	75%
FROM AG. EXT	24	10	6	8	15	3	6	4	10	10	10	14	13	11
OTHERS	11	3	5	3	5	5	1	2	7	2	20%	24%	35%	21%
	12%	12%	14%	10%	13%	16%	5%	10%	19%	6%	10%	15%	3%	19%
	1		1		1				1		1		1	1
	1%		3%		3%				3%		2%		2%	2%
OTHER SOURCE OF SEEDS AWARE OF														
DISTRICT AGRICULTURAL OFFICER	31	9	9	13	10	13	8	5	15	11	17	14	14	17
NEIGHBOR	34%	36%	26%	43%	25%	42%	42%	25%	41%	33%	35%	34%	35%	32%
RETAIL SHOP	9	2	3	4	2	4	3	2	4	3	6	3	3	6
AG CO-OP.	10%	8%	9%	13%	5%	13%	16%	10%	11%	9%	12%	7%	8%	11%
OTHERS	6	4	1	1	5	1		2	2	2	2	4	3	3
	7%	16%	3%	3%	13%	3%		10%	5%	6%	4%	10%	8%	6%
	3		3		1	2			2	1	1	2	1	2
	3%		9%		3%	6%			5%	3%	2%	5%	3%	4%
	1	1			1				1		2%		1	1
	1%	4%			3%				3%		1		2%	2%
NONE	32	9	15	8	17	11	4	8	11	13	15	17	12	20
DON'T KNOW	36%	36%	43%	27%	43%	35%	21%	40%	30%	39%	31%	41%	32%	38%
	19	4	8	7	8	5	6	4	8	7	12	7	7	12
	21%	16%	23%	23%	20%	16%	32%	20%	22%	21%	24%	17%	19%	23%

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Table 17A
 BEST SOURCE OF SEEDS AND REASONS FOR SAYING
 Base: ALL BUYING SEEDS MORE THAN ONE SOURCE

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
Total		NON	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAG LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHRUE	KASET WISAI
Total	51 100%	4 100%	7 100%	1 100%	9 100%	8 100%	5 100%	12 100%	5 100%	12 100%	10 100%	13 100%	16 100%
BEST SOURCE													

DISTRICT AG. OFFICER	25 49%	2 50%	1 14%	1 100%	6 67%	2 25%	2 40%	10 83%	1 20%	3 25%	7 70%	5 38%	10 63%
SEEDS FROM PREVIOUS HARVEST	11 22%	2 50%			3 33%	5 63%	1 20%			3 25%	3 30%	5 38%	
RETAIL SHOP	5 10%		3 43%			1 13%	1 20%			3 25%		2 15%	
NONE	10 20%		3 43%				1 20%	2 17%	4 80%	3 25%		1 8%	6 38%
REASONS													

SELECTED SEEDS	26 51%	2 50%	2 29%		7 78%	4 50%	3 60%	7 58%	1 20%	5 42%	7 70%	7 54%	7 44%
MIXED WITH CHEMICALS	10 20%				4 44%	1 13%	1 20%	4 33%			4 40%	2 15%	4 25%
FREE OF CHARGE	8 16%	2 50%		1 100%		2 25%	1 20%	2 17%		2 17%	1 10%	3 23%	2 13%
CONVENIENT SOURCE	4 8%		2 29%			1 13%	1 20%			2 17%		2 15%	
OTHERS	3 6%		1 14%		1 11%	1 13%				1 8%	1 10%	1 8%	

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IN-DEPTH INTERVIEW

Table 17B
 BEST SOURCE OF SEEDS AND REASONS FOR SAYING
 Base: ALL BUYING SEEDS MORE THAN ONE SOURCE

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	51 100%	16 100%	17 100%	18 100%	23 100%	18 100%	10 100%	11 100%	23 100%	17 100%	26 100%	25 100%	23 100%	28 100%
BEST SOURCE														

DISTRICT AG. OFFICER	25 49%	8 50%	9 53%	8 44%	11 48%	9 50%	5 50%	5 45%	12 52%	8 47%	12 46%	13 52%	11 48%	14 50%
SEEDS FROM PREVIOUS HARVEST	11 22%	3 19%	1 6%	7 39%	2 9%	6 33%	3 30%	2 18%	3 13%	6 35%	6 23%	5 20%	5 22%	6 21%
RETAIL SHOP	5 10%	2 13%	2 12%	1 6%	4 17%	1 6%		2 18%	2 9%	1 6%	2 8%	3 12%	4 17%	1 4%
NONE	10 20%	3 19%	5 29%	2 11%	6 26%	2 11%	2 20%	2 18%	6 26%	2 12%	6 23%	4 16%	3 13%	7 25%
REASONS														

SELECTED SEEDS	26 51%	6 38%	8 47%	12 67%	10 43%	10 56%	6 60%	6 55%	11 48%	9 53%	14 54%	12 48%	13 57%	13 46%
MIXED WITH CHEMICALS	10 20%	1 6%	5 29%	4 22%	3 13%	5 28%	2 20%	1 9%	5 22%	4 24%	6 23%	4 16%	5 22%	3 18%
FREE OF CHARGE	8 16%	4 25%	1 6%	3 17%	3 13%	3 17%	2 20%	1 9%	3 13%	4 24%	3 12%	5 20%	3 13%	5 18%
CONVENIENT SOURCE	4 8%	2 13%	1 6%	1 6%	3 13%	1 6%			3 13%	1 6%	1 4%	3 12%	3 13%	1 4%
OTHERS	3 6%	1 6%	1 6%	1 6%	1 4%	1 6%	1 10%	1 9%	1 4%	1 6%	2 8%	1 4%	2 9%	1 4%

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Table 18A
 WORSE SOURCE OF SEEDS AND REASONS FOR SAYING
 Base: ALL BUYING SEEDS MORE THAN ONE SOURCE

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NDM	NDHG BUA	MONC TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAG LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	51 100%	4 100%	7 100%	1 100%	9 100%	8 100%	5 100%	12 100%	5 100%	12 100%	10 100%	13 100%	16 100%
WORSE SOURCE OF SEEDS													

LOCAL VILLAGE SEEDS	14 27%	1 25%			1 11%	4 50%	1 20%	5 42%	2 40%	2 17%	1 10%	4 31%	7 44%
SHOP IN MARKET	13 25%		3 43%	1 100%		4 50%	1 20%	4 33%		3 25%	1 10%	6 46%	3 19%
DISTRICT AG. OFFICER	3 6%	1 25%			2 22%					1 8%	2 20%		
NONE	21 41%	2 50%	4 57%		6 67%		3 60%	3 25%	3 60%	6 50%	6 60%	3 23%	6 38%
REASONS													

HYBRID SEEDS	14 27%	1 25%			1 11%	3 38%	1 20%	6 50%	2 40%	2 17%	1 10%	4 31%	7 44%
LOW GERMINATION RATE	9 18%		1 14%		1 11%	2 25%	1 20%	4 33%		1 8%	1 10%	4 31%	3 19%
EXPENSIVE	7 14%	1 25%		1 100%		3 38%		2 17%		1 8%	1 10%	3 23%	2 13%
OTHERS	4 8%		2 27%		1 11%	1 13%				2 17%	1 10%	1 8%	

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Table 18B
 HORSE SOURCE OF SEEDS AND REASONS FOR SAYING
 Base: ALL BUYING SEEDS MORE THAN ONE SOURCE

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	51 100%	16 100%	17 100%	18 100%	23 100%	18 100%	10 100%	11 100%	23 100%	17 100%	26 100%	25 100%	23 100%	28 100%
HORSE SOURCE OF SEEDS														
LOCAL VILLAGE SEEDS	14 27%	6 38%	4 24%	4 22%	8 35%	3 17%	3 30%	3 27%	6 26%	5 29%	7 27%	7 28%	6 26%	8 29%
SHOP IN MARKET	13 25%	4 25%	4 24%	5 28%	6 25%	5 28%	2 20%	3 27%	7 30%	3 18%	6 23%	7 28%	7 30%	6 21%
DISTRICT AG. OFFICER	3 6%	1 6%	1 6%	1 6%		3 17%			1 4%	2 12%	1 4%	2 8%	1 4%	2 7%
NONE	21 41%	5 31%	8 47%	8 44%	9 39%	7 39%	5 50%	5 45%	9 39%	7 41%	12 46%	9 36%	9 39%	12 43%
REASONS														
HYBRID SEEDS	14 27%	5 31%	4 24%	5 28%	7 30%	4 22%	3 30%	3 27%	7 30%	4 24%	7 27%	7 28%	6 26%	8 29%
LOW GERMINATION RATE	9 18%	2 13%	5 29%	2 11%	4 17%	4 22%	1 10%	1 9%	7 30%	1 6%	6 23%	3 12%	5 22%	4 14%
EXPENSIVE	7 14%	4 25%	1 6%	2 11%	3 13%	3 17%	1 10%	1 9%	3 13%	3 18%	2 8%	5 20%	3 13%	4 14%
OTHERS	4 8%	1 6%	1 6%	2 11%	2 9%	1 6%	1 10%	1 9%	1 4%	2 12%	1 4%	3 12%	2 9%	2 7%

Table 19A
 SATISFACTION RATING OF LAST YEAR'S YIELD
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
SATISFACTION RATING													
VERY SATISFIED	29 32%	6 60%	3 38%	7 64%	6 60%	4 29%	1 13%	2 11%		10 53%	13 62%	5 23%	1 4%
QUITE SATISFIED	14 16%	4 40%	1 13%	1 9%	2 20%	2 14%	2 25%		2 20%	5 26%	3 14%	4 18%	2 7%
SLIGHTLY SATISFIED	16 18%		3 38%	1 9%	1 10%	4 29%	3 38%	2 11%	2 20%	3 16%	2 10%	7 32%	4 14%
NOT VERY SATISFIED	20 22%		1 13%	2 18%	1 10%	2 14%	1 13%	7 37%	6 60%	1 5%	3 14%	3 14%	13 46%
NOT SATISFIED AT ALL	11 12%					2 14%	1 13%	8 42%				3 14%	8 29%
MEAN SCORE	3.33	4.60	3.75	4.18	4.30	3.29	3.13	2.00	2.60	4.26	4.24	3.23	2.11
Standard deviation	1.44	.92	1.16	1.25	1.06	1.44	1.25	1.25	.84	.93	1.14	1.34	1.03
Standard error	.152	.163	.412	.377	.335	.384	.441	.286	.267	.214	.248	.286	.195
Error variance	.023	.027	.170	.142	.112	.148	.194	.082	.071	.046	.061	.082	.038

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Table 198
 SATISFACTION RATING OF LAST YEAR'S YIELD
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14599	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
SATISFACTION RATING														
VERY SATISFIED	29 32%	9 36%	8 23%	12 40%	13 33%	7 23%	9 47%	5 25%	11 30%	13 39%	14 29%	15 37%	13 35%	16 30%
QUITE SATISFIED	14 16%	3 12%	4 11%	7 23%	5 13%	6 19%	3 16%	1 5%	6 16%	7 21%	8 16%	6 15%	4 11%	10 19%
SLIGHTLY SATISFIED	16 18%	1 4%	12 34%	3 10%	6 15%	8 26%	2 11%	5 25%	6 16%	5 15%	10 20%	6 15%	7 19%	9 17%
NOT VERY SATISFIED	20 22%	7 28%	7 20%	6 20%	10 25%	7 23%	3 16%	5 25%	9 24%	6 18%	12 24%	8 20%	7 19%	13 25%
NOT SATISFIED AT ALL	11 12%	5 20%	4 11%	2 7%	6 15%	3 10%	2 11%	4 20%	5 14%	2 6%	5 10%	6 15%	6 16%	5 9%
MEAN SCORE	3.33	3.16	3.14	3.70	3.22	3.23	3.74	2.90	3.24	3.70	3.29	3.39	3.30	3.36
Standard deviation	1.44	1.65	1.31	1.37	1.51	1.34	1.48	1.48	1.46	1.33	1.38	1.51	1.53	1.39
Standard error	.152	.330	.221	.250	.239	.235	.341	.332	.240	.232	.198	.237	.251	.191
Error variance	.023	.109	.049	.062	.057	.055	.116	.110	.058	.054	.039	.036	.063	.036

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Table 20A
 PROBLEMS ABOUT GROWING CROPS LAST YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
Total		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- HANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
PROBLEMS													
DROUGHT	39 43%	1 10%	3 38%	2 18%		8 57%	5 63%	12 63%	8 80%	5 26%	2 10%	12 55%	20 71%
PESTS	38 42%	6 60%	5 63%	3 27%	6 60%	5 36%	2 25%	6 32%	5 50%	10 53%	10 48%	8 36%	10 36%
IRREGULAR RAINFALL	22 24%	1 10%			4 40%	8 57%	2 25%	6 32%	1 10%	2 11%	4 19%	9 41%	7 25%
NO IRRIGATION	14 16%	1 10%	1 13%	1 9%	1 10%	3 21%	2 25%	2 11%	3 30%	2 11%	2 10%	5 23%	5 18%
INFERTILE LAND	4 4%	1 10%				2 14%		1 5%		1 5%		2 9%	1 4%
FAKE FERTILIZER	4 4%				1 10%	1 7%	2 25%				1 5%	3 14%	
HIGH COSTS	3 3%		1 13%		1 10%	1 7%				1 5%	1 5%	1 5%	
DISEASES	3 3%				1 10%	1 7%	1 13%				1 5%	2 9%	
OTHERS	11 12%	3 30%	2 25%	2 18%	1 10%	2 14%		1 5%		6 32%	3 14%	1 5%	1 4%
NONE	12 13%	2 20%	2 25%	3 45%	3 30%					5 26%	7 33%		

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Table 20B
 PROBLEMS ABOUT GROWING CROPS LAST YEAR
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG./OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
PROBLEMS														
DROUGHT	39 43%	8 32%	17 49%	14 47%	17 43%	13 42%	9 47%	12 60%	16 43%	11 33%	26 53%	13 32%	14 38%	25 47%
PESTS	38 42%	11 44%	11 31%	16 53%	18 45%	9 29%	11 58%	4 20%	18 49%	16 48%	18 37%	20 49%	13 35%	25 47%
IRREGULAR RAINFALL	22 24%	3 12%	14 40%	5 17%	6 15%	16 52%		8 40%	9 24%	5 15%	10 20%	12 29%	10 27%	12 22%
NO IRRIGATION	14 16%	6 24%	3 9%	5 17%	9 23%	1 3%	4 21%	2 10%	6 16%	6 18%	7 14%	7 17%	8 22%	6 11%
INFERTILE LAND	4 4%	1 4%	1 3%	2 7%	1 3%	3 10%		1 5%	1 3%	2 6%	1 2%	3 7%	1 3%	3 6%
FAKE FERTILIZER	4 4%	1 4%		3 10%	1 3%	1 3%	2 11%		1 3%	3 9%	2 4%	2 5%	1 3%	3 6%
HIGH COSTS	3 3%	2 8%	1 3%		2 5%	1 3%		1 5%	2 5%		1 2%	2 5%	3 8%	
DISEASES	3 3%		2 6%	1 3%	1 3%	2 6%			1 3%	2 6%	1 2%	2 5%		3 6%
OTHERS	11 12%	3 12%	5 14%	3 10%	6 15%	4 13%	1 5%	4 20%	2 5%	5 15%	7 14%	4 10%	7 19%	4 8%
NONE	12 13%	6 24%	3 9%	3 10%	7 18%	3 10%	2 11%	1 5%	6 16%	5 15%	5 10%	7 17%	4 11%	8 15%

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Table 21A
 ASSISTANCE RECEIVED FROM OFFICIAL SOURCES AND IMPORTANT FACTORS FOR INCREASING YIELD
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LIANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUME	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
ASSISTANCE RECEIVED FROM OFF. SOURCES													
PAY FOR PESTICIDES	10 11%	1 10%	1 13%			2 14%	1 13%	2 11%	3 30%	2 11%		3 14%	3 18%
FREE SEEDS	7 8%		1 13%	1 9%		1 7%	1 13%	2 11%	1 10%	1 5%	1 5%	2 9%	3 11%
PROVIDE WATER PUMP	5 6%							3 16%	2 20%				5 18%
OTHERS	3 3%	1 10%						2 11%		1 5%			2 7%
NONE	68 76%	8 80%	7 88%	10 91%	10 100%	11 79%	6 75%	11 58%	5 50%	16 84%	20 95%	17 77%	15 54%
IMPORTANT FACTORS FOR INCREASING YIELD													
FERTILIZER	80 89%	9 90%	7 88%	9 82%	9 90%	12 86%	7 88%	17 89%	10 100%	16 84%	18 86%	20 91%	26 93%
PESTICIDES	49 54%	7 70%	7 88%	8 73%	8 80%	10 71%	1 13%	7 37%	1 10%	15 79%	16 76%	10 45%	6 29%
WATER/IRRIGATION	49 54%	5 50%	3 38%	3 27%	8 80%	8 57%	4 50%	10 53%	8 80%	7 37%	12 57%	12 55%	18 64%
CASH FOR INVESTMENT	10 11%		1 13%	1 9%		2 14%		4 21%	2 20%	1 5%	1 5%	2 9%	6 21%
PESTICIDES	6 7%			1 9%	2 20%	2 14%		1 5%			3 14%	2 9%	1 4%
FARM EQUIPMENT	6 7%	1 10%	3 38%			2 14%				4 21%		2 9%	
REGULAR RAINFALL	3 3%	1 10%		1 9%				1 13%		1 5%	1 5%	1 5%	
GOOD SEEDS	3 3%		1 13%					1 13%	1 5%	1 5%		1 5%	1 4%
OTHERS	4 4%		2 25%		1 10%			1 5%		2 11%	1 5%		1 4%

2020

Table 21B
 ASSISTANCE RECEIVED FROM OFFICIAL SOURCES AND IMPORTANT FACTORS FOR INCREASING YIELD
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000- 14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
ASSISTANCE RECEIVED FROM OFF. SOURCES														
PAY FOR PESTICIDES	10 11%	1 4%	5 14%	4 13%	5 13%	1 3%	4 21%		5 14%	5 15%	6 12%	4 10%	1 3%	9 17%
FREE SEEDS	7 8%	3 12%	2 6%	2 7%	4 10%		3 16%	1 5%	3 8%	3 9%	5 10%	2 5%	3 8%	4 8%
PROVIDE WATER PUMP	5 6%		3 9%	2 7%	1 3%	3 10%	1 5%	2 5%	2 6%		4 8%	1 2%	2 5%	3 6%
OTHERS	3 3%	2 8%	1 3%		2 5%	1 3%		1 5%	2 5%		1 2%	2 5%	2 5%	1 2%
NONE	68 76%	19 76%	27 77%	22 73%	29 73%	27 87%	12 63%	17 85%	27 73%	24 73%	35 71%	33 80%	30 81%	38 72%
IMPORTANT FACTORS FOR INCREASING YIELD														
FERTILIZER	80 89%	23 92%	30 86%	27 90%	38 95%	24 77%	18 95%	17 85%	34 92%	29 88%	41 84%	39 95%	33 89%	47 89%
PESTICIDES	49 54%	14 56%	18 51%	17 57%	23 58%	16 52%	10 53%	14 70%	17 46%	18 55%	20 41%	29 71%	20 54%	29 55%
WATER/IRRIGATION	49 54%	9 36%	19 54%	21 70%	17 43%	21 68%	1 5%	7 35%	22 59%	20 61%	25 51%	24 59%	19 51%	30 57%
CASH FOR INVESTMENT	10 11%	3 12%	3 9%	4 13%	6 15%	2 6%	2 11%	3 15%	5 14%	2 6%	4 12%	4 10%	6 16%	4 8%
PESTICIDES	6 7%	3 12%	2 6%	1 3%	4 10%	1 3%	1 5%	1 5%	4 11%	1 3%	1 2%	5 12%	3 8%	3 6%
FARM EQUIPMENT	6 7%	1 4%	5 14%		4 10%	2 6%		3 15%	1 3%	2 6%	3 6%	3 7%	4 11%	2 4%
REGULAR RAINFALL	3 3%	1 4%	2 6%		1 3%	2 6%		1 5%	1 3%	1 3%	2 4%	1 2%		3 6%
GOOD SEEDS	3 3%	1 4%	1 3%	1 3%	2 5%		1 5%		1 3%	2 6%	2 4%	1 2%	1 3%	2 4%
OTHERS	4 4%	1 4%	3 9%		2 5%	2 6%		1 5%	1 3%		3 6%	1 2%	4 11%	

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IN-DEPTH INTERVIEW

Table 22A
 EXPECTATION FOR CROP THIS YEAR AND REASONS FOR SAYING 'INCREASE'
 Base: ALL RESPONDENTS

	Total	A R E A											
		T A M B O L								A M P H U R			
		NONH	NGNO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOK PRAI	SU- HANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
EXPECTATION FOR CROP THIS YEAR													
INCREASE	15 17%	1 10%		1 9%		1 7%	2 25%	5 26%	5 50%	1 5%	1 5%	4 18%	9 32%
DECREASE	67 74%	8 80%	8 100%	10 91%	10 100%	11 79%	5 63%	10 53%	5 50%	17 89%	20 95%	15 68%	15 54%
THE SAME	7 8%	1 10%				1 7%	1 13%	4 21%		1 5%		2 9%	4 14%
DON'T KNOW	1 1%					1 7%						1 5%	
ALL SAYING 'INCREASE'	15 100%	1 100%		1 100%		1 100%	2 100%	5 100%	5 100%	1 100%	1 100%	4 100%	9 100%
REASONS													
MORE WATER (RAIN/IRRIGATION)	11 73%	1 100%					2 100%	5 100%	3 60%	1 100%		3 75%	7 78%
REGULAR RAINFALL	4 27%							2 40%	2 40%				4 44%
OTHERS	3 20%			1 100%		1 100%	1 50%				1 100%	2 50%	

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Table 22B
 EXPECTATION FOR CROP THIS YEAR AND REASONS FOR SAYING 'INCREASE'
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000- 14999	15000+	YES	NO	YES	NO
Total	90 100X	25 100X	35 100X	30 100X	40 100X	31 100X	19 100X	20 100X	37 100X	33 100X	49 100X	41 100X	37 100X	33 100X

EXPECTATION FOR CROP THIS YEAR														

INCREASE	15 17X	4 16X	5 11X	7 23X	6 15X	2 6X	7 37X	2 10X	7 19X	6 18X	13 27X	2 5X	5 14X	10 19X
DECREASE	67 74X	19 76X	27 77X	21 70X	30 75X	27 87X	10 53X	15 75X	29 78X	23 70X	33 67X	34 83X	29 78X	38 72X
THE SAME	7 8X	2 8X	3 9X	2 7X	4 10X	1 3X	2 11X	2 10X	1 3X	4 12X	3 6X	4 10X	3 8X	4 8X
DON'T KNOW	1 1X		1 3X			1 3X		1 5X				1 2X		1 2X
ALL SAYING 'INCREASE'	15 100X	4 100X	4 100X	7 100X	6 100X	2 100X	7 100X	2 100X	7 100X	6 100X	13 100X	2 100X	5 100X	10 100X

REASONS														

MORE WATER (RAIN/IRRIGATION)	11 73X	3 75X	3 75X	5 71X	4 67X	1 30X	6 86X	2 100X	5 71X	4 67X	10 77X	1 50X	4 80X	7 70X
REGULAR RAINFALL	4 27X	1 25X	2 50X	1 14X	2 33X	2 100X		1 50X	2 29X	1 17X	4 31X		2 40X	2 20X
OTHERS	3 20X	2 50X		1 14X	2 33X		1 14X		1 14X	2 33X	2 15X	1 50X	2 40X	1 10X

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Table 23A
 REASONS FOR SAYING CROP THIS YEAR DECREASE
 Base: ALL SAYING CROP THIS YEAR DECREASE

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NONH	NONH BUA	NONH TAP THAI	NA NUAL	BCR PAN KAN	HIN KONG	LAD LUANG	HUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUNE	KASET WISAI
Total	67 100X	8 100X	8 100X	10 100X	10 100X	11 100X	5 100X	10 100X	5 100X	17 100X	20 100X	15 100X	15 100X
REASONS													
DROUGHT	39 58X	4 50X	5 63X	7 70X	2 20X	5 45X	5 100X	7 70X	4 80X	10 59X	8 40X	10 67X	11 73X
IRREGULAR RAINFALL	36 54X	4 50X	4 50X	5 50X	9 90X	6 55X	1 20X	5 50X	2 40X	10 59X	13 65X	6 40X	7 47X
NO IRRIGATION	8 12X	1 13X			2 20X	2 18X	1 20X	1 10X	1 20X		3 15X	3 20X	2 13X
POOR SEEDLINGS	7 10X	1 13X		1 10X		2 18X	1 20X	2 20X		2 12X	1 5X	2 13X	2 13X
FLOODS	4 6X	1 13X		1 10X		1 9X		1 10X		1 6X	1 5X	1 7X	1 7X
OTHERS	3 7X	1 13X	1 13X	1 10X	1 10X	1 9X				2 12X	2 10X	1 7X	

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Table 23B
 REASONS FOR SAYING CROP THIS YEAR DECREASE
 Base: ALL SAYING CROP THIS YEAR DECREASE

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000-	7000-14999	15000+	YES	NO	YES	NO
Total	67 100%	19 100%	27 100%	21 100%	30 100%	27 100%	10 100%	15 100%	29 100%	23 100%	33 100%	34 100%	29 100%	38 100%
REASONS														
DROUGHT	39 58%	11 58%	18 67%	10 48%	19 63%	15 56%	5 50%	8 53%	18 62%	13 57%	22 67%	17 50%	19 66%	20 53%
IRREGULAR RAINFALL	36 54%	11 58%	14 52%	11 52%	18 60%	13 46%	5 50%	6 40%	18 62%	12 52%	15 45%	21 62%	13 45%	23 61%
NO IRRIGATION	8 12%	3 16%	3 11%	2 10%	5 17%	1 4%	2 20%		5 17%	3 13%	4 12%	4 12%	5 17%	3 8%
POOR SEEDLINGS	7 10%	1 5%	4 15%	2 10%	1 3%	5 19%	1 10%	2 13%	1 3%	4 17%	5 15%	2 6%	1 3%	6 16%
FLOODS	4 6%	2 11%	2 7%		3 10%	1 4%		3 20%	1 3%		3 9%	1 3%	4 14%	
OTHERS	5 7%	1 5%	2 7%	2 10%	1 3%	3 11%	1 10%	3 20%	2 7%		2 6%	3 9%	4 14%	1 3%

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Table 24A
GOOD EXPERIENCES WITH AGRICULTURAL EXTENSION SERVICES
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
Total		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAG LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
GOOD EXPERIENCES													
IRRIGATION/ WATER SUPPLIES	35 39%	2 20%	3 38%	1 9%	2 20%	7 50%	6 75%	7 37%	7 70%	6 32%	3 14%	13 59%	13 46%
AGRICULTURAL EXPERTISE	31 34%	5 50%	2 25%	2 18%	5 50%	7 50%	2 25%	4 21%	4 40%	7 37%	7 33%	9 41%	8 29%
PUBLIC HEALTH	29 32%	4 40%	3 38%		1 10%	4 29%	3 38%	7 37%	7 70%	8 42%	1 5%	6 27%	14 50%
ROADS	18 20%	1 10%	3 38%		3 30%	4 29%	3 38%	1 5%	3 30%	5 26%	3 14%	6 27%	4 14%
FREE SEEDS/ANIMALS	15 17%	2 20%	2 25%	1 9%	2 20%	1 7%	1 13%	5 26%	1 10%	4 21%	3 14%	3 14%	5 18%
ELECTRICITY	14 16%	2 20%	1 13%	1 9%	3 30%	2 14%	2 25%	2 11%	1 10%	3 16%	4 19%	4 18%	3 11%
ANIMAL HUSBANDRY EXPERTISE	6 7%	2 20%				2 14%		1 5%	1 10%	2 11%		2 9%	2 7%
DISTRIBUTION OF PESTICIDES	6 7%	2 20%	2 25%		1 10%				1 10%	4 21%	1 5%		1 4%
PRODUCTION OF FERTILIZER	6 7%		1 13%	1 9%		1 7%	1 13%	1 5%	1 10%	2 11%		2 9%	2 7%
POLICE AND ARMY ALSO CONTRIBUTE	6 7%					1 7%	1 13%	4 21%				2 9%	4 14%
BETTER SERVICING	5 6%	1 10%			2 20%			2 11%		1 5%	2 10%		2 7%
VISITS BY VETERINARIANS	4 4%						1 13%	3 16%				1 5%	3 11%
ORGANIZE BY GROUPS	4 4%		1 13%	1 9%		1 7%		1 5%		1 5%	1 5%	1 5%	1 4%
OTHERS	9 10%	1 10%	1 13%	1 9%	1 10%	1 7%	1 13%	2 11%	1 10%	3 16%	1 5%	2 9%	3 11%
NONE	11 12%	2 20%		7 64%				2 11%		1 5%	0 0%		2 7%

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Table 24B
GOOD EXPERIENCES WITH AGRICULTURAL EXTENSION SERVICES
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
GOOD EXPERIENCES														
IRRIGATION/ WATER SUPPLIES	35 39X	6 24X	14 40X	15 50X	13 33X	11 35X	11 58X	5 25X	15 41X	15 45X	24 49X	11 27X	15 41X	20 38X
AGRICULTURAL EXPERTISE	31 34X	8 32X	12 34X	11 37X	13 33X	11 35X	7 37X	4 20X	14 38X	13 39X	14 29X	17 41X	11 30X	20 38X
PUBLIC HEALTH	29 32X	8 32X	12 34X	9 30X	15 38X	9 29X	5 26X	8 40X	12 32X	9 27X	17 35X	12 29X	9 24X	20 38X
ROADS	18 20X	3 12X	6 17X	9 30X	5 13X	10 32X	3 16X	3 15X	8 22X	7 21X	11 22X	7 17X	7 19X	11 21X
FREE SEEDS/ANIMALS	15 17X	7 28X	4 11X	4 13X	9 23X	3 10X	3 16X	2 10X	7 19X	6 18X	3 6X	12 29X	5 14X	10 19X
ELECTRICITY	14 16X	3 12X	4 11X	7 23X	5 13X	5 16X	4 21X	1 5X	7 19X	6 18X	9 18X	5 12X	5 14X	9 17X
ANIMAL HUSBANDRY EXPERTISE	6 7X		3 9X	3 10X	1 3X	3 10X	2 11X		3 8X	3 9X	3 6X	3 7X	1 3X	5 9X
DISTRIBUTION OF PESTICIDES	6 7X	3 12X	1 3X	2 7X	3 8X	2 6X	1 5X	2 10X	1 3X	3 9X	2 4X	4 10X	2 5X	4 8X
PRODUCTION OF FERTILIZER	6 7X	3 12X	2 6X	1 3X	4 10X		2 11X	2 10X	2 5X	2 6X	4 8X	2 5X	4 11X	2 4X
POLICE AND ARMY ALSO CONTRIBUTE	6 7X	3 12X	3 9X		4 10X	2 6X		1 5X	3 8X	2 6X	4 8X	2 5X	2 5X	4 8X
BETTER SERVICING	5 6X	1 4X	2 6X	2 7X	2 5X	2 6X	1 5X	2 10X	2 5X	1 3X	2 4X	3 7X	2 5X	3 6X
VISITS BY VETERINARIANS	4 4X		3 9X	1 3X	3 8X	1 3X		1 5X	1 3X	2 6X	2 4X	2 5X	2 5X	2 4X
ORGANIZE BY GROUPS	4 4X	2 8X	2 6X		2 5X	2 6X		2 10X	2 5X		1 2X	3 7X		4 8X
OTHERS	9 10X	2 8X	4 11X	3 10X	5 13X	2 6X	2 11X	1 5X	4 11X	4 12X	4 8X	5 12X	4 11X	5 9X
NONE	11 12X	3 12X	4 11X	4 13X	3 8X	5 16X	1 16X	5 25X	3 8X	3 9X	7 14X	4 10X	7 19X	4 8X

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Table 25A
 BAD EXPERIENCES WITH AGRICULTURAL EXTENSION SERVICES
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
Total		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAI	BU- WANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
BAD EXPERIENCES													
POOR COMMUNICATION WITH GOV. OFFICIALS	13 14%	4 40%	1 13%	1 9%	3 30%		2 25%	2 11%		4 21%	5 24%	2 9%	2 7%
EXPERIENCE IN AGRICULTURE	10 11%	1 10%		1 9%	3 30%	1 7%	2 25%	2 11%		1 5%	4 19%	3 14%	2 7%
UNFAIR TREATMENT BY POLICE	10 11%				2 20%	2 14%		6 32%			2 10%	2 9%	6 21%
VERY LITTLE INFRASTRUCTURAL DEVELOPMENT	6 7%					1 7%	2 25%	3 16%				3 14%	3 11%
CORRUPTION	5 6%	3 30%	1 13%					1 5%		3 16%	1 5%		1 4%
OTHERS	6 7%	2 20%	1 13%		1 10%	2 14%				4 21%	1 5%	1 5%	
NONE	47 52%	3 30%	6 75%	9 82%	2 20%	8 57%	2 25%	7 37%	10 100%	10 53%	10 48%	11 50%	16 57%
DON'T KNOW	1 1%						1 13%					1 5%	

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Table 25B
BAD EXPERIENCES WITH AGRICULTURAL EXTENSION SERVICES
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100X	25 100X	35 100X	30 100X	40 100X	31 100X	19 100X	20 100X	37 100X	33 100X	49 100X	41 100X	37 100X	53 100X
BAD EXPERIENCES														
POOR COMMUNICATION WITH GOV. OFFICIALS	13 14X	5 20X	3 9X	5 17X	6 15X	5 16X	2 11X	2 10X	3 8X	8 24X	3 6X	10 24X	2 5X	11 21X
EXPERIENCE IN AGRICULTURE	10 11X	2 8X	4 11X	4 13X	4 10X	4 13X	2 11X	1 5X	3 14X	4 12X	6 12X	4 10X	3 8X	7 13X
UNFAIR TREATMENT BY POLICE	10 11X	4 16X	5 14X	1 3X	6 15X	3 10X	1 5X	4 20X	3 8X	3 9X	5 10X	5 12X	4 11X	6 11X
VERY LITTLE INFRASTRUCTURAL DEVELOPMENT	6 7X	1 4X	4 11X	1 3X	3 8X	3 10X				3 8X	3 9X	5 10X	1 2X	2 5X
CORRUPTION	5 6X	2 8X	1 3X	2 7X	2 5X	1 3X	2 11X	2 10X	1 3X	2 6X		5 12X	2 5X	3 6X
OTHERS	6 7X	2 8X	1 3X	3 10X	1 3X	4 13X	1 5X	2 10X	2 5X	2 6X	3 6X	3 7X	2 5X	4 8X
NONE	47 52X	12 48X	19 54X	16 53X	21 53X	14 45X	12 63X	10 50X	23 62X	14 42X	28 57X	19 46X	23 62X	24 45X
DON'T KNOW	1 1X			1 3X			1 5X			1 3X	1 2X		1 3X	

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Table 26A
 INFLUENCE OF AG. CHEM COMPANIES IN THIS AREA
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA	AJSA- MART	PANDH PRAI	SU- WANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
AG. CHEM COMPANIES													
HAS NO INFLUENCE	81 90%	7 70%	8 100%	11 100%	10 100%	12 86%	8 100%	16 84%	9 90%	16 84%	21 100%	20 91%	24 86%
HAS INFLUENCE	9 10%	3 30%				2 14%		3 16%	1 10%	3 16%		2 9%	4 14%
- SELLS EXPENSIVE GOODS	4 4%	2 20%						1 5%	1 10%	2 11%			2 7%
- OTHERS	4 4%					2 14%		2 11%				2 9%	2 7%
- DON'T KNOW	1 1%	1 10%								1 5%			

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Table 26B
 INFLUENCE OF AG. CHEM COMPANIES IN THIS AREA
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000- 14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
AG CHEM COMPANIES														
HAS NO INFLUENCE	81 90%	23 92%	28 80%	30 100%	36 90%	26 84%	19 100%	18 90%	33 89%	30 91%	43 88%	38 93%	34 92%	47 89%
HAS INFLUENCE	9 10%	2 8%	7 20%		4 10%	5 16%		2 10%	4 11%	3 9%	6 12%	3 7%	3 8%	6 11%
- SELLS EXPENSIVE GOODS	4 4%	2 8%	2 6%		3 8%	1 3%			2 5%	2 6%	3 6%	1 2%	1 3%	3 6%
- OTHERS	4 4%		4 11%		1 3%	3 10%		1 5%	2 5%	1 3%	2 4%	2 5%	1 3%	3 6%
- DON'T KNOW	1 1%		1 3%			1 3%		1 5%			1 2%		1 3%	

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Table 27A
CORRUPTION AND REASONS
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MARY	PANOM PRAI	SU- WANNA PHUME	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
IS THERE A LOT OF CORRUPTION													
YES	55 61%	9 90%	4 50%	3 27%	6 60%	5 36%	6 75%	12 63%	10 100%	12 63%	10 48%	11 50%	22 79%
NO	35 39%	1 10%	4 50%	8 73%	4 40%	9 64%	2 25%	7 37%		7 37%	11 52%	11 50%	6 21%
ALL SAYING THERE IS A CORRUPTION	55 100%	9 100%	4 100%	3 100%	6 100%	5 100%	6 100%	12 100%	10 100%	12 100%	10 100%	11 100%	22 100%
REASONS													
VILLAGERS DO NOT GET FULL BENEFIT OF DEVELOPMENT	32 58%	7 78%	2 50%		5 83%	3 60%	2 33%	5 42%	8 80%	8 67%	6 60%	5 45%	13 59%
CORRUPTION AMONG GOV. OFFICIALS	11 20%	1 11%		1 33%		1 20%	2 33%	6 50%		1 8%	1 10%	3 27%	6 27%
OTHERS	3 9%		1 25%	1 33%			1 17%	1 8%	1 10%	1 8%	1 10%	1 9%	2 9%
DON'T KNOW	7 13%	1 11%	1 25%	1 33%	1 17%	1 20%	1 17%		1 10%	2 17%	2 20%	2 18%	1 5%
ALL SAYING NO CORRUPTION	35 100%	1 100%	4 100%	8 100%	4 100%	9 100%	2 100%	7 100%		7 100%	11 100%	11 100%	6 100%
REASONS													
NEVER SEEN/HEARD	30 86%	1 100%	4 100%	6 75%	4 100%	8 89%	2 100%	5 71%		7 100%	9 82%	10 91%	4 67%
OTHERS	5 14%			2 25%		1 11%		2 29%			2 18%	1 9%	2 33%

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Table 27B
CORRUPTION AND REASONS
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
IS THERE A LOT OF CORRUPTION														
YES	55 61%	17 68%	22 63%	16 53%	25 63%	19 61%	11 58%	9 45%	24 65%	22 67%	31 63%	24 59%	19 51%	36 68%
NO	35 39%	8 32%	13 37%	14 47%	15 38%	12 39%	8 42%	11 55%	13 35%	11 33%	18 37%	17 41%	18 49%	17 32%
ALL SAYING THERE IS A CORRUPTION	55 100%	17 100%	22 100%	16 100%	25 100%	19 100%	11 100%	9 100%	24 100%	22 100%	31 100%	24 100%	19 100%	36 100%
REASONS														
VILLAGERS DO NOT GET FULL BENEFIT OF DEVELOPMENT	32 58%	9 53%	12 55%	11 69%	13 52%	11 58%	8 73%	5 56%	16 67%	11 50%	16 52%	16 67%	8 42%	24 67%
CORRUPTION AMONG GOV. OFFICIALS	11 20%	3 18%	7 32%	1 6%	7 28%	3 16%	1 9%	1 11%	6 25%	4 18%	7 23%	4 17%	3 16%	8 22%
OTHERS	5 9%	3 18%	1 5%	1 6%	2 8%	3 16%		1 11%	1 4%	3 14%	3 10%	2 8%	4 21%	1 3%
DON'T KNOW	7 13%	2 12%	2 9%	3 19%	3 12%	2 11%	2 18%	2 22%	1 4%	4 18%	5 16%	2 8%	4 21%	3 8%
ALL SAYING NO CORRUPTION	35 100%	8 100%	13 100%	14 100%	15 100%	12 100%	8 100%	11 100%	13 100%	11 100%	18 100%	17 100%	18 100%	17 100%
REASONS														
NEVER SEEN/HEARD	30 86%	6 75%	12 92%	12 86%	12 80%	11 92%	7 88%	9 82%	11 85%	10 91%	16 89%	14 82%	15 83%	15 88%
OTHERS	5 14%	2 25%	1 8%	2 14%	3 20%	1 8%	1 13%	2 18%	2 15%	1 9%	2 11%	3 18%	3 17%	2 12%

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Table 28A
 3 BIGGEST EFFECT ON LIFE IN THE VILLAGE ON THE POSITIVE SIDE IN PAST 5-10 YEARS
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
3 BIGGEST EFFECTS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ROADS	68	8	7	5	10	12	6	12	8	13	13	19	19
ELECTRICITY	76%	80%	88%	45%	100%	86%	75%	63%	80%	79%	71%	86%	68%
WATER SUPPLY	64	9	7	10	8	11	2	11	6	17	18	12	17
PUBLIC HEALTH	71%	90%	88%	91%	80%	79%	25%	58%	60%	89%	86%	55%	61%
COMMUNICATIONS	44	5	5	8	5	10	3	5	3	12	12	12	8
SCHOOLS/EDUCATION	49%	50%	63%	73%	50%	71%	38%	26%	30%	63%	57%	55%	29%
BETTER TRANSPORTATION/ACCESS	27	3	1		4	3	2	6	8	4	5	4	14
BETTER NUTRITION	30%	30%	13%		40%	21%	25%	32%	80%	21%	24%	18%	50%
AGRICULTURE	6				1	2		2	1			2	3
FAMILY PLANNING	7%				10%	14%		11%	10%			5%	11%
FARM EQUIPMENT	5		1	1		1	1	1		1	1	2	1
TEMPLES	6%		13%	9%		7%	13%	5%		5%	5%	9%	4%
MORE NEWS/INFORMATION	5	1		1				3			2		3
RICE MILL	6%			18%				3		1	1	1	11%
OTHERS	5			2				16%			10%		2
DON'T KNOW	4	1		1	1			3		1	1	1	2
	4%	10%		9%	10%		13%	11%		5%		5%	7%
	4			1			1		1		2	1	1
	4%			9%	10%		13%		10%		10%	5%	4%
	3		1				1			1		1	1
	3%		13%				13%		10%	1		1	1
	3	1					13%		10%	5%		5%	4%
	3%	10%						2		1		1	2
	2							11%		5%		1	7%
	2%						1		1			1	1
	2%		1				13%		10%			5%	4%
	2		13%				1			1		1	
	2%					1	7%	1		5%		5%	
	2%						1	1				2	
	12	2		1		1	2	5	1	2	1	3	6
	13%	20%		9%		7%	25%	26%	10%	11%	5%	14%	21%
	1			1							1		
	1%			9%							5%		
	1%			9%							5%		

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Table 28B
 3 BIGGEST EFFECT ON LIFE IN THE VILLAGE ON THE POSITIVE SIDE IN PAST 5-10 YEARS
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
3 BIGGEST EFFECTS	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
ROADS	68	17	23	23	29	25	14	15	28	25	36	32	26	42
ELECTRICITY	76X	69X	80X	77X	73X	81X	74X	75X	76X	76X	73X	78X	70X	79X
WATER SUPPLY	64	18	24	22	29	20	15	14	27	23	32	32	24	40
PUBLIC HEALTH	71X	72X	69X	73X	73X	65X	79X	70X	73X	70X	65X	78X	65X	75X
COMMUNICATIONS	44	13	14	17	22	12	10	9	16	19	24	20	18	26
SCHOOLS/EDUCATION	49X	52X	40X	57X	55X	39X	53X	45X	43X	58X	49X	49X	49X	49X
BETTER TRANSPORTATION/ACCESS	27	4	10	13	8	10	9	6	9	12	17	10	7	20
BETTER NUTRITION	30X	16X	29X	43X	20X	32X	47X	30X	24X	36X	35X	24X	19X	38X
AGRICULTURE	6	3	1	2	4	2	2	2	4	4	3	3	2	4
FAMILY PLANNING	7X	12X	3X	7X	10X	6X	2	2	11X	2	6X	7X	5X	8X
FARM EQUIPMENT	5	2	1	2	2	1	2	2	1	2	2	3	3	2
TEMPLES	6X	8X	3X	7X	5X	3X	11X	10X	3X	6X	4X	7X	8X	4X
OTHERS	5	1	3	1	3	1	1	1	3	1	2	3	2	3
DON'T KNOW	6X	4X	9X	3X	8X	3X	5X	5X	8X	3X	4X	7X	5X	6X
	4	3	1	1	2	2	1	3	5	3	3	7X	3X	6X
	6X	12X	3X	3X	5X	6X	5X	1	14X	5	3	2	2	3
	4	1	3		3	1	5X	1	1	2	6X	5X	1	6X
	4X	4X	9X		8X	3X	3	5X	3X	6X	4X	5X	3X	6X
	4	2	2		3	1	3		3	1	3	1	3	1
	4X	8X	6X		8X	3X	1		8X	3X	6X	2X	8X	2X
	3	1	2		1	2	2		2	1	2	1	1	2
	3X	4X	6X		3X	6X	3X		5X	3X	4X	2X	3X	4X
	3	2	1		3		2		1	3X	1	2	3	4X
	3X	8X	3X		8X		10X		1	1	1	2	8X	1
	2		1	1		1	1		3X	1	2X	5X	1	2X
	2X	2	3X	3X		3X	5X		3X	1	4X	1	3X	1
	2	2			2		1		1	3X	4X	1	2	2X
	2X	8X			5X		5X		1	1	1	1	2	2
	2	1	1		1	1	1		3X	2	2X	2X	5X	1
	2X	4X	3X		3X	3X	2		2	6X	1	1	1	1
	12	3	6	3	4	6	4	4	5	3	2X	2X	3X	2X
	12X	12X	17X	10X	10X	19X	2	20X	14X	9X	7	5	4	8
	1		10X	1	10X	1	11X			1	14X	12X	11X	15X
	1X		3X			3X				3X	1		1	
											2X		3X	

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Table 29B
3 BIGGEST EFFECT ON LIFE IN THE VILLAGE ON THE POSITIVE SIDE IN PAST 5-10 YEARS (MEN'S ATTITUDE)
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
3 BIGGEST EFFECTS														
PUBLIC HEALTH	13	4	5	4	5	5	3	4	2	7	8	5	5	8
ROADS	14	16%	14%	13%	13%	16%	14%	20%	5%	21%	16%	12%	14%	15%
COMMUNICATIONS	7	4		3	4	1	2	1	3	3	3	4	4	3
WATER SUPPLY	8	16%		10%	10%	3%	11%	5%	8%	9%	6%	10%	11%	6%
SCHOOLS/EDUCATION	5	1	3	1	2	3		1	2	2	1	4	2	3
BETTER TRANSPORTATION/ACCESS	4	4%	9%	3%	5%	10%		5%	5%	6%	2%	10%	5%	6%
DEMONSTRATION PLOTS/CENTERS FOR AGRICULTURE	4	2	1	1	2	1	1	5%	3%	6%	4%	5%	3%	6%
AG. CO-OPS	4	8%	3%	3%	5%	3%	5%	2	2	2	1	3	1	3
ELECTRICITY	4	2	1	1	2	1	1	1	5%	6%	2%	7%	3%	6%
TEMPLES	4	8%	3%	3%	5%	3%	5%	5%	1	2	1	3	3	1
FAMILY PLANNING	4	2	2	3%	5%	3%	5%	2	3%	6%	2%	7%	3%	6%
RICE MILL	4	8%	3%	3%	5%	3%	5%	5%	1	2	1	3	3	1
AGRICULTURE	3	2	1	1	4			2	2	6%	2%	7%	8%	2%
MORE NEWS/INFORMATION	3	8%	6%	3%	10%			1	5%	6%	1	3	2	2
BETTER NUTRITION	3	2	1	1	3			1	2	2	2%	7%	5%	4%
FARM EQUIPMENT	2	8%	3%	3%	8%		1	5%	5%	5%	1	2	2	3%
OTHERS	2	1	1	1	1	1		1	1	1	2%	5%	5%	1
NGNE	5	2	2	1	3	2	5%	2	2	3%		1	1	1
	6%	8%	6%	3%	8%	6%		2	2	1	4	2%	3%	3
	54	14	22	18	23	19	12	10%	5%	3%	8%	2%	5%	6%
	60%	56%	63%	60%	58%	61%	63%	45%	68%	61%	57%	51%	57%	62%

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Table 30A
 3 BIGGEST EFFECT ON LIFE IN PAST 5-10 YEARS THAT MADE LIFE IN THE VILLAGE NOT AS GOOD AS IT USED TO BE
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- HANNA PHUM	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	17	21	22	28
3 BIGGEST EFFECTS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DROUGHT	52	3	2	10	8	7	6	8	8	7	17	12	16
HIGH COST OF LIVING	58%	30%	25%	91%	80%	50%	75%	42%	80%	37%	81%	55%	57%
HARD TO MAKE A LIVING	33	2	2	6		5	1	11	6	6	5	6	16
POOR ECONOMIC PERFORMANCE	37%	20%	25%	55%		36%	13%	58%	60%	32%	24%	27%	57%
LOW COMMODITY PRICES	19	4		2		4	3	5	1	4	3	6	6
FISH HAVE DISEASE	21%	40%		18%		29%	38%	26%	10%	21%	14%	27%	21%
NO HOSPITAL	13	3	2		8					5	8		
NO MONEY FOR INVESTMENT	14%	30%	25%		80%					26%	38%		
MORE SELFISHNESS	9	1	13%	9%				3	4	1	1	1	6
DESTRUCTION OF FORESTS	6	1						16%	40%	5%	5%	5%	21%
NATURAL DISASTERS	7%	10%					1	2	2	1	5%	1	4
WATER SUPPLY	5	1	1	1				11%	20%	5%		5%	14%
OTHERS	6%	10%	13%	9%				2	2	2	1		2
NONE	4%					1		1	2	11%		1	3
DON'T KNOW	3					7%		5%	10%	1		5%	4%
	3%							1	2	13%			2
	8%							11%	1				7%
	3%							1	2				2
	3%							5%	20%				3
	3%	2						1	10%	2			11%
	3%	20%						5%	1	2			1
	3%		1			1		1		11%			4%
	3%		13%			7%		5%		1		1	1
	2%							2		5%		5%	4%
	2%							11%					2
	7					2		1	1				7%
	8%					14%		3	1			3	4
	8%	1	3		1	2	13%	16%	10%			14%	14%
	9%	10%	38%		10%	2		1		4	1	2	1
	3			1		2		5%		21%	5%	9%	4%
	3%			9%		14%					5%	9%	

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Table 30B
 3 BIGGEST EFFECT ON LIFE IN PAST 5-10 YEARS THAT MADE LIFE IN THE VILLAGE NOT AS GOOD AS IT USED TO BE
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN			LESS THAN			LESS THAN			YES	NO	YES	NO
		40	40-49	50+	40	40-49	50+	7000	7000-14999	15000+				
Total	90	25	35	30	40	31	19	29	37	33	49	41	37	53
3 BIGGEST EFFECTS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
DROUGHT	52	14	15	23	21	17	14	11	19	22	32	20	20	32
HIGH COST OF LIVING	58%	56%	43%	77%	53%	55%	74%	55%	51%	67%	65%	49%	54%	60%
HARD TO MAKE A LIVING	33	10	12	11	15	9	9	8	15	10	20	13	17	16
POOR ECONOMIC PERFORMANCE	37%	40%	34%	37%	38%	29%	47%	40%	41%	30%	41%	32%	46%	30%
LOW COMMODITY PRICES	19	6	6	7	9	5	5	5	6	8	12	7	9	10
FISH HAVE DISEASE	21%	24%	17%	23%	23%	16%	26%	25%	16%	24%	24%	17%	24%	19%
NO HOSPITAL	13	2	4	7	5	5	3	2	5	6	5	8	4	9
NO MONEY FOR INVESTMENT	14%	8%	11%	23%	13%	16%	16%	10%	14%	18%	10%	20%	11%	17%
MORE SELFISHNESS	9	2	3	4	4	2	3	2	6	1	6	3	5	4
DESTRUCTION OF FORESTS	10%	8%	9%	13%	10%	6%	16%	10%	16%	3%	12%	7%	14%	8%
NATURAL DISASTERS	6	1	2	3	3	2	1	1	2	3	3	3	1	5
WATER SUPPLY	7%	4%	6%	10%	8%	6%	5%	5%	5%	9%	6%	7%	3%	9%
NO TRANSPORTATION	5	2	2	1	2	3	1	2	3	1	3	2	2	3
OTHERS	6%	8%	6%	3%	5%	10%	10%	10%	8%	1	6%	5%	5%	6%
NONE	3	1	2	1	2	2	2	5%	5%	3%	2	2	1	3
DON'T KNOW	4%	4%	6%	3%	5%	6%	3%	1	2	1	4%	5%	3%	6%
	3%	1	2	3%	2	1	5%	1	2	2	3	3	1	2
	2%	1	1	1	2	1	1	1	1	1	1	1	2	2
	2%	1	1	1	2	1	1	1	1	1	1	1	2	2
	7%	1	3	3	2	4	1	2	3	2	2%	2%	4	4%
	8%	4%	9%	10%	5%	13%	5%	10%	8%	6%	5	2	11%	3
	8	3	5		5	3		2	4	2	10%	5%	11%	6%
	9%	12%	14%		5	3		2	4	2	2	6	5	3
	3	3	9%		1	2		1	1	1	4%	15%	14%	6%
	3%				3%	6%		5%	3%	3%	2%	5%		6%

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IN-DEPTH INTERVIEW

Table 31A

3 BIGGEST EFFECT ON LIFE IN PAST 5-10 YEARS THAT MADE LIFE IN THE VILLAGE NOT AS GOOD AS IT USED TO BE (MEN'S ATTITUDE)

Base: ALL RESPONDENTS

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
3 BIGGEST EFFECTS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
HARD TO MAKE A LIVING	5			2		2		1			2	2	1
HIGH COST OF LIVING	6X			18X		14X		5X			10X	9X	4X
LOW COMMODITY PRICES	3			1		2					1	2	
	3X			9X		14X					5X	9X	
DROUGHT	3		1	1		1				2		1	
	3X		13X	9X		7X				11X		5X	
NO HOSPITAL	2					1		1				1	1
	2X					7X		5X				5X	4X
NO MONEY FOR INVESTMENT	1					1						1	
	1X					7X						5X	
NATURAL DISASTERS	1		1							1			
	1X		13X							5X			
OTHERS	1					1						1	
	1X					7X						5X	
NONE	4					3			1			3	1
	4X					21X			10X			14X	4X
DON'T KNOW	75	9	6	7	10	9	8	17	9	15	19	17	25
	83X	90X	75X	64X	100X	64X	100X	89X	90X	79X	86X	77X	89X
	2	1		1						1	1		
	2X	10X		9X						5X	5X		

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Table 31B

IN-DEPTH INTERVIEW

3 BIGGEST EFFECT ON LIFE IN PAST 5-10 YEARS THAT MADE LIFE IN THE VILLAGE NOT AS GOOD AS IT USED TO BE (MEN'S ATTITUDE)
Base: ALL RESPONDENTS

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
3 BIGGEST EFFECTS														
HARD TO MAKE A LIVING	5	1	4		3	2			3	2	3	2	1	4
HIGH COST OF LIVING	6X	4X	11X		8X	6X			8X	6X	6X	5X	3X	8X
LOW COMMODITY PRICES	3		2	1		3		1	1	1	1	2	3	
DROUGHT	3X	1	6X	3X	2	10X		5X	3X	3X	2X	5X	6X	
NO HOSPITAL	3X	4X	2		5X	3X		1	2		2	1	1	
NO MONEY FOR INVESTMENT	2		1	1	1	1		5X	5X	2	4X	2X	5X	
NATURAL DISASTERS	1		3X	3X	3X	3X		1	5X	5X	2X	2X	2	
OTHERS	1X	1	1		1			1	1		1	1	1	
NONE	4	1	3X	1	3X			5X	1		2X		3X	
DON'T KNOW	4X	4X	2	1	2	1	1	5X	2	1	1	2	2	
	75	21	6X	3X	5X	3X	5X	5X	5X	3X	4X	5X	5X	4X
	83X	34X	27	27	31	26	18	17	28	30	40	35	30	45
	2	1	77X	90X	78X	84X	95X	85X	76X	91X	82X	85X	81X	85X
	2X	4X		3X	3X	3X			1	1	1	1	2	
									3X	3X	2X	2X	5X	

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Table 32A
PEOPLE IN THE VILLAGE
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUM	KASAT NISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

RATING OF NUTRITION ...													
MUCH BETTER	45	8	3	10	8	1	4	9	2	11	18	5	11
	50%	80%	38%	91%	80%	7%	50%	47%	20%	58%	86%	23%	39%
SOMEWHAT BETTER	26	1	1		2	8	2	6	6	3	2	9	12
	29%	10%	13%		20%	57%	25%	32%	60%	16%	10%	41%	43%
A LITTLE BETTER	9		3			1	2	1	2	3		4	2
	10%		38%			7%	25%	5%	20%	16%		18%	7%
ABOUT THE SAME	3	1		1		1				1	1	1	
	3%	10%		9%		7%				5%	5%	5%	
NOT AS WELL AS BEFORE	7		1			3		3		1		3	3
	8%		13%			21%		16%		5%		14%	11%
MEAN SCORE	4.10	4.60	3.63	4.73	4.80	3.21	4.25	3.95	4.00	4.16	4.76	3.55	4.00
Standard deviation	1.20	.97	1.41	.90	.42	1.37	.89	1.43	.67	1.21	.70	1.30	1.22
Standard error	.126	.306	.498	.273	.133	.366	.313	.329	.211	.279	.153	.277	.230
Error variance	.016	.093	.248	.074	.018	.134	.098	.108	.044	.078	.023	.077	.053

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Table 32B
PEOPLE IN THE VILLAGE
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000-	7000- 14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<hr/>														
RATING OF NUTRITION														
MUCH BETTER	45	17	16	12	23	12	10	8	19	18	25	20	23	22
	50%	68%	46%	40%	58%	39%	53%	40%	51%	55%	51%	49%	62%	42%
SOMEWHAT BETTER	26	4	10	12	9	10	7	2	12	12	15	11	3	23
	29%	16%	29%	40%	23%	32%	37%	10%	32%	36%	31%	27%	8%	43%
A LITTLE BETTER	9	1	5	3	4	4	1	2	6	1	7	2	5	4
	10%	4%	14%	10%	10%	13%	5%	10%	16%	3%	14%	5%	14%	8%
ABOUT THE SAME	3	1		2	1	2		2		1	1	2	2	1
	3%	4%		7%	3%	6%		10%		3%	2%	5%	5%	2%
NOT AS WELL AS BEFORE	7	2	4	1	3	3	1	6		1	1	6	4	3
	8%	8%	11%	3%	8%	10%	5%	30%		3%	2%	15%	11%	6%
MEAN SCORE	4.10	4.32	3.97	4.07	4.20	3.84	4.32	3.20	4.35	4.36	4.27	3.90	4.05	4.13
Standard deviation	1.20	1.25	1.29	1.05	1.20	1.29	1.00	1.77	.75	.93	.93	1.45	1.41	1.04
Standard error	.126	.250	.219	.191	.190	.232	.230	.395	.124	.162	.133	.226	.232	.143
Error variance	.016	.062	.048	.037	.036	.054	.053	.156	.015	.026	.018	.051	.054	.020

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Table 33A
 ALL HAVING NEGATIVE ATTITUDE TOWARDS THE NUTRITION
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A												
		T A M B O L							A M P H U R					
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANSA PHUM	KASET WISAI	
Total	7 100%		1 100%			3 100%		3 100%			1 100%		3 100%	3 100%
REASONS														
LESS VARIETY OF FOOD/ CROPS GROWN IN VILLAGE	5 71%		1 100%			2 67%		2 67%			1 100%		2 67%	2 67%
NOT ENOUGH MONEY TO BUY FOOD	3 43%					1 33%		2 67%					1 33%	2 67%
MORE PEOPLE IN VILLAGE THAN BEFORE	3 43%					1 33%		2 67%					1 33%	2 67%
QUANTITY IS LESS	2 29%					1 33%		1 33%					1 33%	1 33%
WORSE AGRICULTURAL CONDITIONS	2 29%							2 67%						2 67%

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Table 33B
 ALL HAVING NEGATIVE ATTITUDE TOWARDS THE NUTRITION
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	7 100%	2 100%	4 100%	1 100%	3 100%	3 100%	1 100%	6 100%	1 100%		1 100%	6 100%	4 100%	3 100%
REASONS														
LESS VARIETY OF FOOD/ CROPS GROWN IN VILLAGE	5 71%	2 100%	2 50%	1 100%	3 100%	1 33%	1 100%	4 67%	1 100%			5 83%	2 50%	3 100%
NOT ENOUGH MONEY TO BUY FOOD	3 43%	1 50%	2 50%		1 33%	2 67%		3 50%			1 100%	2 33%	1 25%	2 67%
MORE PEOPLE IN VILLAGE THAN BEFORE	3 43%	1 50%	2 50%		1 33%	2 67%		3 50%			1 100%	2 33%	2 50%	1 33%
QUANTITY IS LESS	2 29%	1 50%		1 100%	1 33%		1 100%	1 17%	1 100%			2 33%	1 25%	1 33%
WORSE AGRICULTURAL CONDITIONS	2 29%	1 50%	1 25%		1 33%	1 33%		2 33%			1 100%	1 17%	1 25%	1 33%

of

Table 34A
 ALL HAVING POSITIVE/NEUTRAL ATTITUDE TOWARDS THE NUTRITION
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	83 100%	10 100%	7 100%	11 100%	10 100%	11 100%	8 100%	16 100%	10 100%	10 100%	21 100%	19 100%	25 100%
REASONS													
BETTER KNOWLEDGE OF NUTRITION	55 66%	9 90%	2 29%	4 36%	10 100%	1 9%	7 88%	13 81%	9 90%	10 56%	15 71%	8 42%	22 88%
MORE FOOD/CROPS GROWN IN VILLAGE	47 57%	6 60%	3 43%	9 82%	9 90%	6 55%	1 13%	8 50%	5 50%	9 50%	18 86%	7 37%	13 52%
ASSISTANCE FROM GOVERNMENT	35 42%	7 70%		3 27%	8 80%	1 9%		8 50%	8 80%	7 39%	12 57%		16 64%
GREATER INCOME FROM CROPS/MORE MONEY	30 36%	5 50%	3 43%	1 9%	8 80%	4 36%	1 13%	3 19%	5 50%	7 39%	10 48%	5 26%	8 32%
LESS CHILDREN/ PEOPLE THUS MORE FOOD	16 19%	5 50%		1 9%	8 80%		1 13%	1 6%		4 22%	10 48%	1 5%	1 4%
OTHERS	3 4%	1 10%				1 9%		1 6%		1 6%		2 11%	

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Table 34B
 ALL HAVING POSITIVE/NEUTRAL ATTITUDE TOWARDS THE NUTRITION
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000- 14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	83	23	31	29	37	28	18	14	37	32	48	35	33	50
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
REASONS														
BETTER KNOWLEDGE OF NUTRITION	55 66%	16 70%	20 65%	19 66%	25 68%	17 61%	13 72%	9 64%	21 57%	25 78%	34 71%	21 60%	21 64%	34 68%
MORE FOOD/CROPS GROWN IN VILLAGE	47 57%	13 57%	18 58%	16 55%	20 54%	16 57%	11 61%	6 43%	23 62%	18 56%	25 52%	22 63%	19 58%	28 56%
ASSISTANCE FROM GOVERNMENT	35 42%	12 52%	11 35%	12 41%	16 49%	7 25%	10 56%	5 36%	18 49%	12 38%	17 35%	18 51%	12 36%	23 46%
GREATER INCOME FROM CROPS/MORE MONEY	30 36%	7 30%	10 32%	13 45%	12 32%	11 39%	7 39%	3 21%	14 38%	13 41%	12 25%	18 51%	9 27%	21 42%
LESS CHILDREN/ PEOPLE THUS MORE FOOD	16 19%	4 17%	3 10%	9 31%	4 11%	6 21%	6 33%	2 14%	5 14%	9 28%	4 8%	12 34%	6 18%	10 20%
OTHERS	3 4%	1 4%		2 7%	1 3%	1 4%	1 6%	2 14%	1 3%		1 2%	2 6%	2 6%	1 2%

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Table 35A
 RATING OF HEALTH OF PEOPLE IN THE VILLAGE
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
RATING OF HEALTH ...	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
MUCH BETTER	51 57%	9 90%	2 25%	10 91%	7 70%	6 43%	7 88%	9 47%	1 10%	12 63%	17 81%	12 55%	10 36%
SOMEWHAT BETTER	26 29%		5 63%		2 20%	5 36%	1 13%	5 26%	8 80%	5 26%	2 10%	7 32%	12 43%
A LITTLE BETTER	6 7%		1 13%		1 10%	2 14%		1 5%	1 10%	1 5%	1 5%	2 9%	2 7%
ABOUT THE SAME													
NOT AS WELL AS BEFORE	7 8%	1 10%		1 9%		1 7%		4 21%		1 5%	1 5%	1 5%	4 14%
MEAN SCORE	4.27	4.60	4.13	4.64	4.60	4.07	4.88	3.79	4.00	4.42	4.62	4.32	3.86
Standard deviation	1.13	1.26	.64	1.21	.70	1.14	.35	1.58	.47	1.02	.97	.99	1.33
Standard error	.119	.400	.227	.364	.221	.305	.125	.363	.149	.233	.212	.212	.250
Error variance	.014	.160	.051	.132	.049	.093	.016	.132	.022	.054	.045	.045	.063

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Table 35B
RATING OF HEALTH OF PEOPLE IN THE VILLAGE
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
RATING OF HEALTH														
MUCH BETTER	51 57%	15 60%	17 49%	19 63%	23 58%	14 45%	14 74%	8 40%	19 51%	24 73%	33 67%	18 44%	18 49%	33 62%
SOMEWHAT BETTER	26 29%	7 28%	12 34%	7 23%	12 30%	10 32%	4 21%	7 35%	14 38%	5 15%	12 24%	14 34%	12 32%	14 26%
A LITTLE BETTER	6 7%	1 4%	3 9%	2 7%	3 8%	3 10%		2 10%	2 5%	2 6%	2 4%	4 10%	3 8%	3 6%
ABOUT THE SAME														
NOT AS WELL AS BEFORE	7 8%	2 8%	3 9%	2 7%	2 5%	4 13%	1 5%	3 15%	2 5%	2 6%	2 4%	5 12%	4 11%	3 6%
MEAN SCORE	4.27	4.32	4.14	4.37	4.35	3.97	4.58	3.85	4.30	4.48	4.51	3.98	4.08	4.40
Standard deviation	1.13	1.14	1.17	1.10	1.00	1.33	.96	1.39	1.00	1.06	.92	1.29	1.26	1.03
Standard error	.119	.229	.197	.200	.158	.239	.221	.310	.164	.185	.131	.202	.206	.141
Error variance	.014	.052	.039	.040	.025	.057	.049	.096	.027	.034	.017	.041	.043	.020

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Table 36A
 REASONS FOR HAVING NEGATIVE ATTITUDE TOWARDS THE HEALTH OF VILLAGERS
 Base: ALL HAVING NEGATIVE ATTITUDE THE HEATH OF VILLAGERS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L							A M P H U R				
		NONH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOH PRAI	SU- WANNA PHUME	KASET WISAI
Total	7 100%	1 100%		1 100%		1 100%		4 100%		1 100%	1 100%	1 100%	4 100%
REASONS													
POORER NUTRITION	3 43%							3 75%					3 75%
WIDESPREAD USE OF DRUGS	2 29%	1 100%						1 25%		1 100%			1 25%
GREATER WORKLOAD AT HEALTH CENTER/HOSPITAL	2 29%			1 100%				1 25%			1 100%		1 25%
USE OF HERBICIDES & INSECTICIDES	1 14%	1 100%								1 100%			
OTHERS	1 14%					1 100%						1 100%	

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Table 36B
 REASONS FOR HAVING NEGATIVE ATTITUDE TOWARDS THE HEALTH OF VILLAGERS
 Base: ALL HAVING NEGATIVE ATTITUDE THE HEATH OF VILLAGERS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (%HT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT		
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000- 14999	15000+	YES	NO	YES	NO	
Total	7 100%	2 100%	3 100%	2 100%	4 100%	1 100%	3 100%	2 100%	2 100%	2 100%	2 100%	3 100%	4 100%	3 100%	
REASONS															
POORER NUTRITION	3 43%	1 50%	2 67%		1 50%	2 50%		2 67%	1 50%			1 50%	2 40%	2 50%	1 33%
WIDESPREAD USE OF DRUGS	2 29%		2 67%		1 50%	1 25%		1 33%	1 50%			2 40%	1 25%	1 33%	
GREATER WORKLOAD AT HEALTH CENTER/HOSPITAL	2 29%	1 50%		1 50%	1 50%	1 25%		1 33%		1 50%	1 50%	1 20%	1 25%	1 33%	
USE OF HERBICIDES & INSECTICIDES	1 14%		1 33%			1 25%			1 50%			1 20%		1 33%	
OTHERS	1 14%			1 50%		1 100%			1 50%			1 20%	1 25%		

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Table 37A
 REASONS FOR HAVING POSITIVE/NEUTRAL ATTITUDE TOWARDS THE HEALTH OF VILLAGERS
 Base: ALL HAVING POSITIVE/NEUTRAL ATTITUDE THE HEATH OF VILLAGERS

		A R E A											
		T A M B O L								A M P H U R			
Total		NONH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA-MART	PANOH PRAI	SU-HANNA PHUM	KASET WISAI
Total	83 100%	9 100%	8 100%	10 100%	10 100%	13 100%	8 100%	15 100%	10 100%	18 100%	20 100%	21 100%	24 100%
REASONS													
MORE HEALTH CENTERS BUILT IN AREA	61 73%	8 89%	5 63%	7 70%	9 90%	6 46%	6 75%	10 67%	10 100%	14 78%	16 80%	12 57%	19 79%
BETTER TRANSPORTATION TO HOSPITAL	49 59%	7 78%	1 13%	6 60%	9 90%	7 54%	1 13%	9 60%	9 90%	8 44%	15 75%	8 38%	18 75%
MORE DOCTORS AND NURSES VISIT	41 49%	5 56%	2 25%	4 40%	7 70%	4 31%	1 13%	9 60%	9 90%	7 39%	11 55%	6 29%	17 71%
BETTER SANITATION IN VILLAGE	39 47%	7 78%	5 63%	3 30%	9 90%	3 23%	3 38%	8 53%	1 10%	12 67%	13 65%	5 24%	9 39%
MOBILE HEALTH UNITS	28 34%	4 44%	1 13%	1 10%	6 60%		4 50%	10 67%	2 20%	4 22%	8 40%	5 24%	11 46%
MORE DRUGS AVAILABLE	15 18%	3 33%	1 13%	3 30%	4 40%	2 15%		2 13%		3 17%	8 40%	2 10%	2 8%
HYGIENIC/NUTRITIOUS FOODS	5 6%	1 11%	2 25%	1 10%		1 8%				2 11%	2 10%	1 5%	
OTHERS	2 2%		2 25%							2 11%			

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Table 37B
 IN-DEPTH INTERVIEW
 REASONS FOR HAVING POSITIVE/NEUTRAL ATTITUDE TOWARDS THE HEALTH OF VILLAGERS
 Base: ALL HAVING POSITIVE/NEUTRAL ATTITUDE THE HEATH OF VILLAGERS

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	83 100%	23 100%	32 100%	28 100%	38 100%	27 100%	18 100%	17 100%	35 100%	31 100%	47 100%	36 100%	33 100%	50 100%
REASONS														
MORE HEALTH CENTERS BUILT IN AREA	61 73%	14 61%	23 72%	24 86%	24 63%	21 78%	16 89%	8 47%	26 74%	27 87%	38 81%	23 64%	24 73%	37 74%
BETTER TRANSPORTATION TO HOSPITAL	49 59%	13 57%	17 53%	19 68%	19 50%	17 63%	13 72%	11 65%	22 63%	16 52%	26 55%	23 64%	22 67%	27 54%
MORE DOCTORS AND NURSES VISIT	41 49%	12 52%	15 47%	14 50%	17 45%	13 48%	11 61%	7 41%	20 57%	14 45%	24 51%	17 47%	13 39%	28 56%
BETTER SANITATION IN VILLAGE	39 47%	16 70%	12 38%	11 39%	23 61%	10 37%	6 33%	9 53%	17 49%	13 42%	14 30%	25 69%	15 45%	24 48%
MOBILE HEALTH UNITS	28 34%	8 35%	10 31%	10 36%	14 37%	7 26%	7 39%	3 18%	14 40%	11 35%	16 34%	12 33%	13 39%	15 30%
MORE DRUGS AVAILABLE	15 18%	6 26%	4 13%	5 18%	8 21%	4 15%	3 17%	5 29%	6 17%	4 13%	4 9%	11 31%	10 30%	5 10%
HYGIENIC/NUTRITIOUS FOODS	5 6%	2 9%	1 3%	2 7%	2 5%	1 4%	2 11%	3 18%		2 6%	2 4%	3 8%	2 6%	3 6%
OTHERS	2 2%	1 4%	1 3%		2 5%			1 6%		1 3%		2 6%		2 4%

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Table 38A
 RATING OF HEALTH AND NUTRITION OF CHILDREN IN THE VILLAGE
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NONH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAI	SU- HANNA PHUM	KABET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
RATING OF HEALTH AND NUTRITION													
MUCH BETTER	67 74%	8 80%	5 63%	11 100%	8 80%	9 64%	7 88%	12 63%	7 70%	14 74%	19 90%	15 68%	19 68%
SOMEWHAT BETTER	13 14%	1 10%	1 13%		2 20%	2 14%	1 13%	3 16%	3 30%	2 11%	2 10%	4 18%	5 18%
A LITTLE BETTER	7 8%	1 10%	2 25%			2 14%		2 11%		3 16%		2 9%	2 7%
NOT AS WELL AS BEFORE	3 3%					1 7%		2 11%				1 5%	2 7%
MEAN SCORE	4.57	4.70	4.38	5.00	4.80	4.29	4.88	4.21	4.70	4.58	4.90	4.45	4.39
Standard deviation	.90	.67	.92	-	.42	1.20	.35	1.32	.48	.77	.30	1.01	1.13
Standard error	.095	.213	.324	-	.133	.322	.125	.302	.153	.176	.066	.215	.214
Error variance	.009	.046	.105	-	.018	.104	.016	.091	.023	.031	.004	.046	.046

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Table 388
 RATING OF HEALTH AND NUTRITION OF CHILDREN IN THE VILLAGE
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
RATING OF HEALTH AND NUTRITION														
MUCH BETTER	67 74%	19 76%	23 66%	25 83%	30 75%	20 65%	17 89%	13 65%	28 76%	26 79%	41 84%	26 63%	24 65%	43 81%
SOMEWHAT BETTER	13 14%	3 12%	7 20%	3 10%	5 13%	7 23%	1 5%	2 10%	7 19%	4 12%	6 12%	7 17%	8 22%	5 9%
A LITTLE BETTER	7 8%	2 8%	4 11%	1 3%	4 10%	3 10%		3 15%	2 5%	2 6%	1 2%	6 15%	3 8%	4 8%
NOT AS WELL AS BEFORE	3 3%	1 4%	1 3%	1 3%	1 3%	1 3%	1 5%	2 10%		1 3%	1 2%	2 5%	2 5%	1 2%
MEAN SCORE	4.57	4.56	4.46	4.70	4.57	4.45	4.74	4.20	4.70	4.64	4.76	4.34	4.41	4.68
Standard deviation	.90	.96	.92	.84	.87	.93	.93	1.32	.37	.86	.69	1.06	1.04	.78
Standard error	.095	.192	.155	.153	.138	.166	.214	.296	.094	.150	.099	.166	.171	.107
Error variance	.009	.037	.024	.023	.019	.028	.046	.087	.009	.022	.010	.028	.029	.011

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IN-DEPTH INTERVIEW

Table 39A
HEALTH PROBLEMS FROM INTENSIVE USE OF PESTICIDES IN FARMING
Base: ALL RESPONDENTS

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- HANNA PHUME	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
HAVING HEALTH PROBLEMS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
YES	40	5	5	3	5	6	3	10	3	9	9	9	13
NO	50	5	3	8	5	8	5	9	7	10	12	13	15
	56%	50%	38%	73%	50%	57%	63%	47%	70%	53%	57%	59%	54%
ALL WITH HEALTH PROBLEMS	40	5	5	3	5	6	3	10	3	9	9	9	13
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
TYPES OF PROBLEMS													
DIZZINESS	27	3	4	1	5	4	3	6	1	6	7	7	7
	68%	60%	80%	33%	100%	67%	100%	60%	33%	67%	78%	78%	54%
HEADACHES	10	3			3		2	2		2	4	2	2
	25%	60%			60%		67%	20%		22%	44%	22%	15%
VOMITING	9	1	2		1	2		1	2	3	1	2	3
	23%	20%	40%		20%	35%		10%	67%	33%	11%	22%	23%
DRY THROAT	7	1	3		2			1		4	2		1
	18%	20%	60%		40%			10%		44%	22%		8%
TIREDNESS/LANGUOR	7	2			4			1		1	3		1
	18%	40%			80%			10%		11%	56%		8%
CHEST TIGHTNESS	4	1			1			2		1	1		2
	10%	20%			20%			20%		11%	11%		15%
OTHERS	12	3	1	1	1	1		3	2	3	3	1	5
	30%	60%	20%	33%	20%	17%		30%	67%	33%	33%	11%	38%
DON'T KNOW	5	1	1	1		1		1		2	1	1	1
	13%	20%	20%	33%		17%		10%		22%	11%	11%	8%

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Table 39B
HEALTH PROBLEMS FROM INTENSIVE USE OF PESTICIDES IN FARMING
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
HAVING HEALTH PROBLEMS														
YES	40	13	17	10	21	14	5	9	16	15	17	23	20	20
	44X	52X	49X	33X	53X	45X	26X	45X	43X	45X	35X	56X	54X	38X
NO	50	12	18	20	19	17	14	11	21	18	32	18	17	33
	56X	48X	51X	67X	48X	55X	74X	55X	57X	55X	65X	44X	46X	62X
ALL WITH HEALTH PROBLEMS	40	13	17	10	21	14	5	9	16	15	17	23	20	20
	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
TYPES OF PROBLEMS														
DIZZINESS	27	7	12	8	13	10	4	6	9	12	12	15	18	9
	68X	54X	71X	80X	62X	71X	80X	67X	56X	80X	71X	45X	90X	45X
HEADACHES	10	5	2	3	6	2	2	1	3	6	4	6	5	5
	25X	38X	12X	30X	29X	14X	40X	11X	19X	40X	24X	26X	25X	25X
VOMITING	9	2	5	2	4	4	1	3	4	2	5	4	5	4
	23X	15X	29X	20X	19X	29X	20X	33X	25X	13X	29X	17X	25X	20X
DRY THROAT	7	3	3	1	3	4		1	4	2	1	6	4	3
	18X	23X	18X	10X	14X	29X		11X	25X	13X	6X	26X	20X	15X
TIREDDNESS/LANGUOR	7	2	2	3	2	4	1		2	5	1	6	3	4
	18X	15X	12X	30X	10X	29X	20X		13X	33X	6X	26X	15X	20X
CHEST TIGHTNESS	4	4			4			2	1	1	1	3	1	3
	10X	31X			19X			22X	6X	7X	6X	13X	5X	15X
OTHERS	12	2	8	2	7	3	2	2	6	4	6	6	7	5
	30X	15X	47X	20X	33X	21X	40X	22X	38X	27X	35X	26X	35X	25X
DON'T KNOW	5	2	2	1	2	3		1	2	2	1	4		5
	13X	15X	12X	10X	10X	21X		11X	13X	13X	6X	17X		25X

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Table 40A
 LIFE STYLE OF PEOPLE IN THE VILLAGE COMPARE WITH 5-10 YEARS AGO (1)
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L							A M P H U R				
Total		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA	AJSA- MART	PANON PRAI	BU- WANNA PHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
PUBLIC UTILITIES AVAILABLE													
BETTER ROADS TO THE VILLAGE	82 91%	8 80%	8 100%	11 100%	10 100%	11 79%	6 75%	18 95%	10 100%	17 89%	21 100%	17 77%	27 96%
ELECTRICITY	73 81%	8 80%	8 100%	11 100%	8 80%	11 79%	2 25%	16 84%	9 90%	17 89%	19 90%	12 55%	25 89%
BETTER WATER SUPPLY	54 60%	8 60%	5 63%	10 91%	9 90%	8 57%	2 25%	11 58%	1 10%	14 74%	18 86%	11 50%	11 39%
BETTER INFORMED ABOUT EVENTS OUTSIDE													
YES	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
HAVING MORE MONEY TO SPEND													
YES	82 91%	10 100%	7 88%	11 100%	10 100%	12 86%	7 88%	15 79%	10 100%	18 95%	21 100%	18 82%	25 89%
NO	8 9%		1 13%			2 14%	1 13%	4 21%		1 5%		4 18%	3 11%

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Table 40B
 LIFE STYLE OF PEOPLE IN THE VILLAGE COMPARE WITH 5-10 YEARS AGO (1)
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000- 14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
PUBLIC UTILITIES AVAILABLE														
BETTER ROADS TO THE VILLAGE	82 91%	22 88%	33 94%	27 90%	36 90%	30 97%	16 84%	19 95%	35 95%	28 85%	45 92%	37 90%	33 89%	49 92%
ELECTRICITY	73 81%	21 84%	29 83%	23 77%	35 88%	23 74%	15 79%	18 90%	31 84%	24 73%	37 76%	36 88%	28 76%	45 85%
BETTER WATER SUPPLY	54 60%	18 72%	19 54%	17 57%	25 63%	18 58%	11 58%	13 65%	20 54%	21 64%	27 55%	27 66%	22 59%	32 60%
BETTER INFORMED ABOUT EVENTS OUTSIDE														
YES	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
HAVING MORE MONEY TO SPEND														
YES	82 91%	23 92%	32 91%	27 90%	36 90%	28 90%	18 95%	15 75%	35 95%	32 97%	44 90%	38 93%	33 89%	49 92%
NO	8 9%	2 8%	3 9%	3 10%	4 10%	3 10%	1 5%	5 25%	2 5%	1 3%	5 10%	3 7%	4 11%	4 8%

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Table 41A
 IN-DEPTH INTERVIEW
 LIFE STYLE OF PEOPLE IN THE VILLAGE COMPARE WITH 5-10 YEARS AGO (II)
 Base: ALL RESPONDENTS

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAI	SU- WANNA PHUM	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
MATERIAL POSSESSIONS ARE BETTER OFF	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
YES	88	10	8	11	10	13	8	18	10	19	21	21	27
NO	2	100X	100X	100X	100X	93X	100X	95X	100X	100X	100X	95X	96X
	2X					1		1				1	1
						7X		5X				5X	4X
MORE POSSESSIONS OF ...													
RADIO	76	9	7	6	9	10	7	18	10	16	15	18	27
	84X	90X	88X	55X	90X	71X	88X	95X	100X	84X	71X	82X	96X
BICYCLE	72	10	4	5	10	9	6	10	10	14	15	15	28
	80X	100X	50X	45X	100X	64X	75X	95X	100X	74X	71X	68X	100X
TELEVISION	68	8	6	7	10	9	1	17	10	14	17	10	27
	76X	80X	75X	64X	100X	64X	13X	89X	100X	74X	81X	45X	96X
MOTORCYCLE	66	9	3	6	10	8	3	17	10	12	16	11	27
	73X	90X	38X	55X	100X	57X	38X	89X	100X	63X	76X	50X	96X
MOTOR CAR	49	8	1	6	9	3		14	8	9	15	3	22
	54X	80X	13X	55X	90X	21X		74X	80X	47X	71X	14X	79X
REFRIGERATOR	35	6	2	4	7	2	1	9	4	8	11	3	13
	39X	60X	25X	36X	70X	14X	13X	47X	40X	42X	52X	14X	46X
SEWING MACHINE	30	8	1	2	9	2		7	1	9	11	2	8
	33X	80X	13X	18X	90X	14X		37X	10X	47X	52X	9X	29X
PICKUP TRUCK	25	7		1	8			9		6	10		9
	28X	70X		9X	80X			47X		32X	48X		32X
LAND/FARM	14	1	2	4		3	2	2		5	3	5	1
	16X	10X	25X	36X		21X	25X	11X		26X	14X	23X	4X
RICE MILL	11			6		3		2			6	3	2
	12X			55X		21X		11X			29X	14X	7X
ELECTRIC FAN	10	1	2	1		3		1		3	1	5	1
	11X	10X	25X	9X		36X		9X		16X	5X	23X	4X
COWS/BUFFALDES	10		3	1		2	3	1		4		5	1
	11X		38X	9X		14X	38X	5X		21X		23X	4X
LOCAL VEHICLE USED ON FARM	5	1			2		2			1	2	2	
	6X	10X			20X		25X			5X	10X	9X	
OTHERS	8		1			5		2		1		5	2
	9X		13X			36X		11X		5X		23X	7X

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Table 4:8
LIFE STYLE OF PEOPLE IN THE VILLAGE COMPARE WITH 5-10 YEARS AGO (II)
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
MATERIAL POSSESSIONS ARE BETTER OFF	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
YES	88	25	34	29	39	30	19	18	37	33	49	39	35	53
NO	2	1	1	1	1	1	1	2	100X	100X	100X	95X	95X	100X
MORE POSSESSIONS OF	2X	3X	3X	3X	3X	3X	3X	10X			2	5X	2	5X
RADIO	76	21	31	24	35	26	15	16	34	26	40	36	33	43
BICYCLE	84X	84X	89X	80X	88X	84X	79X	80X	92X	79X	82X	88X	89X	81X
TELEVISION	72	21	28	23	32	26	14	16	31	25	37	35	30	42
MOTORCYCLE	80X	84X	80X	77X	80X	84X	74X	80X	84X	76X	76X	85X	81X	79X
MOTOR CAR	68	19	28	21	33	21	14	15	33	20	34	34	26	42
REFRIGERATOR	76X	76X	80X	70X	73X	68X	74X	75X	89X	61X	69X	83X	70X	79X
SEWING MACHINE	66	19	26	21	30	22	14	15	27	24	35	31	24	42
PICKUP TRUCK	73X	76X	74X	70X	75X	71X	74X	75X	73X	73X	71X	76X	65X	79X
LAND/FARM	49	15	20	14	22	16	11	11	22	16	26	23	18	31
RICE MILL	54X	60X	57X	47X	55X	52X	58X	55X	59X	48X	53X	56X	49X	58X
ELECTRIC FAN	35	9	15	11	16	11	8	6	17	12	16	19	13	22
CONVS/BUFFALOES	39X	36X	43X	37X	40X	35X	42X	30X	46X	36X	33X	46X	35X	42X
LOCAL VEHICLE USED ON FARM	30	9	12	9	13	12	5	8	11	11	13	17	12	18
OTHERS	33X	36X	34X	30X	33X	39X	26X	40X	30X	33X	27X	41X	32X	34X
	25	7	10	8	10	10	5	8	9	8	9	16	12	13
	28X	28X	29X	27X	25X	32X	26X	40X	24X	24X	18X	39X	32X	25X
	14	4	4	6	7	4	3	3	7	4	10	4	6	8
	16X	16X	11X	20X	18X	13X	16X	15X	19X	12X	20X	10X	16X	15X
	11	2	4	5	4	4	3	1	4	6	6	5	4	7
	12X	8X	11X	17X	10X	13X	16X	5X	11X	18X	12X	12X	11X	13X
	10	2	3	5	3	4	3	4	3	3	3	7	5	5
	11X	8X	9X	17X	8X	13X	16X	20X	8X	9X	6X	17X	14X	9X
	10	4	3	3	7	2	1	2	5	3	6	4	6	4
	11X	16X	9X	10X	18X	6X	5X	10X	14X	9X	12X	10X	16X	8X
	5	3	2	2	3	2	2		1	4	3	2	2	3
	6X	12X	7X	7X	8X	11X	11X		3X	12X	6X	5X	5X	6X
	8	2	3	3	4	3	1	4	2	2	2	6	3	5
	9X	8X	9X	10X	10X	10X	5X	20X	5X	6X	4X	15X	8X	9X

Table 42A
 EFFECT ON LIFE IN THE VILLAGE ON THE POSITIVE SIDE AFTER PROBING
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NAM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANOM PRAI	SU- HANNA PHUM	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
3 BIGGEST EFFECTS	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
WATER SUPPLY	4	1					1	1	1	1		1	2
ELECTRICITY	4%	10%					13%	5%	10%	5%		5%	7%
AGRICULTURE	1							1					1
	1%							5%					4%
NONE	81						1					1	
	90%	7	8	10	10	13	13%	7	17	17	19	20	25
DON'T KNOW	5	70%	100%	91%	100%	93%	88%	89%	90%	89%	90%	91%	89%
	6%	2		1		1		1		1	2	1	1
		20%		9%		7%		5%		5%	10%	5%	4%

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Table 42B
 EFFECT ON LIFE IN THE VILLAGE ON THE POSITIVE SIDE AFTER PROBING
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
3 BIGGEST EFFECTS														
WATER SUPPLY	4	1	3		3	1			3	1	3	1	1	3
	4%	4%	9%		8%	3%			8%	3%	6%	2%	3%	6%
ELECTRICITY	1		1		1				1		1			
	1%		3%		3%				3%		2%			2%
AGRICULTURE	1		1			1				1	1			1
	1%		3%			3%				3%	2%			2%
NONE	81	23	29	29	34	27	18	20	31	30	45	36	34	47
	90%	92%	83%	97%	83%	94%	95%	100%	84%	91%	92%	88%	92%	89%
DON'T KNOW	5	1	3	1	3	1	1		3	2	1	4	2	3
	6%	4%	9%	3%	8%	3%	5%		8%	6%	2%	10%	5%	6%

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IN-DEPTH INTERVIEW

Table 43A

EFFECT ON LIFE IN THE VILLAGE ON THE NEGATIVE SIDE AFTER PROBING

Base: ALL RESPONDENTS

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOH	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LOO LUANG	MUANG BUA	AJSA- MART	PANDH PRAI	SU- HANNA CHUM	KASET WISAI
Total	90 100%	10 100%	8 100%	11 100%	10 100%	14 100%	8 100%	19 100%	10 100%	19 100%	21 100%	22 100%	28 100%
3 BIGGEST EFFECTS													
HIGH COST OF LIVING	1 1%			1 9%							1 5%		
POOR ECONOMIC PERFORMANCE	1 1%					1 7%						1 5%	
NO MONEY FOR INVESTMENT	1 1%					1 7%						1 5%	
MORE SELFISHNESS	1 1%					1 7%						1 5%	
WATER SUPPLY	1 1%			1 9%						1 5%			
OTHERS	1 1%	1 10%									1 5%		
NONE	81 90%	7 70%	8 100%	8 73%	10 100%	11 79%	8 100%	19 100%	10 100%	16 84%	18 86%	19 86%	28 100%
DON'T KNOW	3 6%	2 20%		1 9%		2 14%				2 11%	1 5%	2 9%	

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Table 43B
EFFECT ON LIFE IN THE VILLAGE ON THE NEGATIVE SIDE AFTER PROBING
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90	25	35	30	40	31	19	20	37	33				
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	49	41	37	53
3 BIGGEST EFFECTS											100%	100%	100%	100%
HIGH COST OF LIVING	1	1			1					1				1
	1%	4%			3%					3%	1			2%
POOR ECONOMIC PERFORMANCE	1		1			1		1			2%		1	
	1%		3%			3%		5%				1	1	3%
NO MONEY FOR INVESTMENT	1		1			1		1				2%	1	3%
	1%		3%			3%		1				1	1	3%
MORE SELFISHNESS	1		1			1		1				1	1	3%
	1%		3%			3%		1				2%	1	3%
WATER SUPPLY	1	1			1			5%				2%	1	3%
	1%	4%			3%		1			1		1	1	3%
OTHERS	1			1					1		2%		1	3%
	1%			3%			1		3%			1	1	3%
NONE	81	20	32	28	35	28	18	19	33	29			33	48
	90%	84%	91%	93%	88%	90%	95%	95%	89%	88%	46	35	89%	91%
DON'T KNOW	5	2	2	1	3	2	2	3	3	2	94%	85%	89%	91%
	6%	8%	6%	3%	8%	6%			8%	6%	1	4	1	4
											2%	10%	3%	8%

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Table 44A
 AWARENESS OF PROGRAMS BY AID, OTHER DONORS AND GOVERNMENT
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
Total		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- HART	PANOM PRAE	SU- WANNA PHUM	KASET WISAI
Total	90 100X	10 100X	8 100X	11 100X	10 100X	14 100X	8 100X	19 100X	10 100X	19 100X	21 100X	22 100X	28 100X
PROGRAMS AWARE OF													
WATER RESOURCES DEVELOPMENT	88 98X	9 90X	8 100X	11 100X	10 100X	14 100X	7 88X	19 100X	10 100X	18 95X	21 100X	21 95X	28 100X
TUNG XULA RONGHAI PROJECT	86 96X	10 100X	7 88X	9 82X	10 100X	13 93X	8 100X	19 100X	10 100X	17 89X	20 95X	21 95X	28 100X
IRRIGATION PROJECT	86 96X	9 90X	8 100X	11 100X	10 100X	14 100X	6 75X	18 95X	10 100X	18 95X	21 100X	20 91X	27 96X
FISHERIES DEVELOPMENT PROJECT	83 92X	9 90X	8 100X	10 91X	9 90X	14 100X	5 63X	18 95X	10 100X	18 95X	19 90X	18 82X	26 100X
WATER SUPPLY	81 90X	9 90X	8 100X	9 82X	8 80X	14 100X	6 75X	17 89X	10 100X	18 95X	17 81X	19 86X	27 96X
SMALL SCALE WATER RESOURCES PROJECT	81 90X	9 90X	7 88X	11 100X	8 80X	14 100X	5 63X	17 89X	10 100X	17 89X	19 90X	19 86X	26 93X
AGRICULTURAL EXTENSION SERVICE	80 89X	8 80X	8 100X	11 100X	8 80X	12 86X	5 63X	18 95X	10 100X	17 89X	19 90X	17 77X	27 96X
SMALL SCALE IRRIGATION	80 89X	10 100X	7 88X	10 91X	7 70X	14 100X	7 88X	15 79X	10 100X	18 95X	17 81X	21 95X	24 86X
VILLAGE FISHPOND DEVELOPMENT	79 88X	7 70X	8 100X	9 82X	8 80X	14 100X	6 75X	18 95X	9 90X	16 84X	17 81X	19 86X	27 96X
FLOOD CONTROL AND IRRIGATION	78 87X	9 50X	8 100X	9 82X	9 90X	13 93X	5 63X	16 84X	9 90X	18 95X	18 86X	17 77X	25 89X
SERICULTURE RESEARCH AND TRAINING CENTER	78 87X	8 80X	7 88X	9 82X	9 90X	13 93X	5 63X	17 89X	10 100X	16 84X	18 86X	18 82X	26 93X
SELF-HELP SETTLEMENT	75 83X	9 90X	7 88X	9 82X	7 70X	13 93X	2 25X	18 95X	10 100X	17 89X	16 76X	15 68X	27 96X
ANIMAL HEALTH PROJECT	73 81X	9 90X	7 88X	10 91X	6 60X	12 86X	5 63X	14 74X	10 100X	17 89X	16 76X	17 77X	23 82X
UBOL RATANA DAM IMPROVEMENT	73 81X	6 60X	7 88X	10 91X	8 80X	12 86X	6 75X	15 79X	9 90X	14 74X	18 86X	18 82X	23 82X

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Table 44A (continuation)
 AWARENESS OF PROGRAMS BY AID, OTHER DONORS AND GOVERNMENT
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

		A R E A											
		T A M B O L								A M P H U R			
Total		NONI	NONO BUA	NONO TAP THAI	NA NUAL	SOR PAN KAN	HIN KONG	LAD LUANG	MUANG BUA	AJSA-MART	PANOM PRAI	SU-WANNA PHUM	KASET WISAI
Total	90 100X	10 100X	8 100X	11 100X	10 100X	14 100X	8 100X	19 100X	10 100X	19 100X	21 100X	22 100X	28 100X
PUMP IRRIGATION	72 80X	9 90X	7 88X	8 73X	7 70X	11 79X	4 50X	16 84X	10 100X	17 89X	15 71X	14 64X	26 93X
RAINFED AGRICULTURE DEVELOPMENT	70 78X	8 80X	7 88X	9 82X	7 70X	12 86X	4 50X	13 68X	10 100X	16 84X	16 76X	15 68X	23 82X
SEED DEVELOPMENT	68 76X	8 80X	7 88X	6 55X	6 60X	11 79X	3 38X	17 89X	10 100X	16 84X	12 57X	13 59X	27 96X
ANIMAL HEALTH IMPROV. PROJECT IN-FOOD & MOUTH DISEASE VACCINE PROD. CENTER	66 73X	6 60X	7 88X	10 91X	5 50X	12 86X	5 63X	12 63X	9 90X	14 74X	15 71X	16 73X	21 75X
PASTURE IMPROVEMENT PROJECT	65 72X	8 80X	3 38X	6 55X	5 50X	11 79X	5 63X	17 89X	10 100X	11 58X	12 57X	16 73X	26 93X
NATIONAL AGRICULTURE EXTENSION PROJECT	59 66X	7 70X	8 100X	8 73X	3 30X	10 71X	3 38X	11 58X	9 90X	16 84X	11 52X	12 55X	30 71X
INSTITUTE FOR SKILL DEVELOPMENT	59 66X	7 70X	5 63X	7 64X	5 50X	12 86X	1 13X	12 63X	10 100X	13 68X	12 57X	12 55X	22 79X
IRRIGATION IMPROVEMENT PROJECT	54 60X	4 40X	5 63X	8 73X	4 40X	10 71X	4 50X	10 53X	9 90X	10 53X	12 57X	13 59X	19 68X
PASTURE IMPROVEMENT PROJECT	54 60X	5 50X	4 50X	8 73X	4 40X	8 57X	2 25X	14 74X	9 90X	10 53X	12 57X	10 45X	22 79X
INTEGRATED RURAL DEVELOPMENT PROJECT	51 57X	6 60X	2 25X	7 64X	6 60X	6 43X	2 25X	12 63X	10 100X	8 42X	13 62X	8 36X	22 79X
EXPERIMENTAL & DEMONSTRATION FARM FOR IRRIGATED, AGRICULTURE	44 49X	6 60X	4 50X	6 55X	5 50X	7 50X		10 53X	6 60X	11 58X	11 52X	6 27X	16 57X
EXPANSION OF INDUSTRIAL AND BOAT BUILDING TRAINING CENTER	24 27X	4 40X	2 25X	5 45X	3 30X	7 50X		3 16X		7 37X	8 38X	6 27X	3 11X

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Table 44B
 AWARENESS OF PROGRAMS BY AID, OTHER DONORS AND GOVERNMENT
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
PROGRAMS AWARE OF														
WATER RESOURCES DEVELOPMENT	88 98%	25 100%	35 100%	28 93%	40 100%	30 97%	18 95%	20 100%	36 97%	32 97%	47 96%	41 100%	36 97%	52 98%
TUNG KULA RONGHAI PROJECT	86 96%	23 92%	34 97%	29 77%	37 93%	30 97%	19 100%	19 95%	35 95%	32 97%	47 96%	39 95%	35 95%	51 96%
IRRIGATION PROJECT	86 96%	25 100%	34 97%	27 90%	39 98%	29 94%	18 95%	19 95%	36 97%	31 94%	46 94%	40 98%	35 95%	51 96%
FISHERIES DEVELOPMENT PROJECT	83 92%	24 96%	32 91%	27 90%	38 95%	28 90%	17 89%	20 100%	32 86%	31 94%	44 90%	39 95%	33 89%	50 94%
WATER SUPPLY	81 90%	22 88%	32 91%	27 90%	37 93%	27 87%	17 89%	18 90%	33 89%	30 91%	44 90%	37 90%	34 92%	47 89%
SMALL SCALE WATER RESOURCES PROJECT	81 90%	21 84%	34 97%	26 87%	37 93%	26 84%	18 95%	18 90%	33 89%	30 91%	45 92%	36 88%	33 89%	48 91%
AGRICULTURAL EXTENSION SERVICE	80 89%	24 96%	31 89%	25 83%	38 95%	26 84%	16 84%	17 85%	34 92%	29 88%	43 88%	37 90%	30 81%	50 94%
SMALL SCALE IRRIGATION	80 89%	21 84%	32 91%	27 90%	36 90%	25 81%	19 100%	16 80%	33 89%	31 94%	45 92%	35 85%	31 84%	49 92%
VILLAGE FISHPOND DEVELOPMENT	79 88%	24 96%	32 91%	23 77%	39 98%	29 81%	15 79%	19 95%	32 86%	28 85%	43 88%	36 88%	33 89%	46 87%
FLOOD CONTROL AND IRRIGATION	78 87%	23 92%	31 89%	24 80%	35 88%	27 87%	16 84%	17 85%	32 86%	29 88%	41 84%	37 90%	32 86%	46 87%
SERICULTURE RESEARCH AND TRAINING CENTER	78 87%	22 88%	29 83%	27 90%	35 88%	26 84%	17 89%	17 85%	31 84%	30 91%	41 84%	37 90%	31 84%	47 99%
SELF-HELP SETTLEMENT	75 83%	23 92%	30 86%	22 73%	37 93%	23 74%	15 79%	18 90%	33 89%	24 73%	39 80%	36 88%	28 76%	47 89%
ANIMAL HEALTH PROJECT	73 81%	21 84%	28 80%	24 80%	33 83%	24 77%	16 84%	18 90%	27 75%	28 85%	41 84%	32 78%	30 81%	43 81%
UBOL RATANA DAM IMPROVEMENT	73 81%	21 84%	25 71%	27 90%	33 83%	22 71%	18 95%	14 70%	29 78%	30 91%	41 84%	32 78%	33 89%	40 75%

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Table 44B (continuation)
 AWARENESS OF PROGRAMS BY AID, OTHER DONORS AND GOVERNMENT
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG./OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100%	25 100%	35 100%	30 100%	40 100%	31 100%	19 100%	20 100%	37 100%	33 100%	49 100%	41 100%	37 100%	53 100%
PUMP IRRIGATION	72 80%	21 84%	28 80%	23 77%	33 83%	24 77%	15 79%	17 85%	28 76%	27 82%	39 80%	33 80%	31 84%	41 77%
RAINFED AGRICULTURE DEVELOPMENT	70 78%	20 80%	27 77%	23 77%	33 83%	21 68%	16 84%	13 65%	32 86%	25 76%	36 73%	34 83%	25 68%	45 85%
SEED DEVELOPMENT	68 76%	22 88%	26 74%	20 67%	34 85%	22 71%	12 63%	12 60%	31 84%	25 76%	36 73%	32 78%	26 70%	42 79%
ANIMAL HEALTH IMPROV. PROJECT IN FOOT & MOUTH DISEASE VACCINE PROD. CENTER	66 73%	18 72%	26 74%	22 73%	31 78%	20 65%	15 79%	12 60%	28 76%	26 79%	34 69%	32 78%	27 73%	39 74%
PASTURE IMPROVEMENT PROJECT	65 72%	18 72%	25 71%	22 73%	29 73%	22 71%	14 74%	13 65%	27 73%	25 76%	36 73%	29 71%	23 62%	42 79%
NATIONAL AGRICULTURE EXTENSION PROJECT	59 66%	18 72%	20 57%	21 70%	24 60%	23 74%	12 63%	12 60%	25 68%	22 67%	32 65%	27 64%	23 62%	36 68%
INSTITUTE FOR SKILL DEVELOPMENT	59 66%	16 64%	22 63%	21 70%	27 68%	20 65%	12 63%	12 60%	25 68%	22 67%	31 63%	28 68%	23 62%	36 68%
IRRIGATION IMPROVEMENT PROJECT	54 60%	14 56%	20 57%	20 67%	23 58%	19 61%	12 63%	11 55%	21 57%	22 67%	33 67%	21 51%	22 59%	32 60%
PASTURE IMPROVEMENT PROJECT	54 60%	16 64%	20 57%	18 60%	25 63%	18 58%	11 58%	10 56%	25 68%	19 58%	32 65%	22 54%	21 57%	33 62%
INTEGRATED RURAL DEVELOPMENT PROJECT	51 57%	14 56%	19 54%	18 60%	23 58%	17 55%	11 58%	6 30%	22 59%	23 70%	31 63%	20 49%	16 43%	35 56%
EXPERIMENTAL & DEMONSTRATION FARM FOR IRRIGATED, AGRICULTURE	44 49%	14 56%	14 40%	16 53%	21 53%	14 45%	9 47%	9 45%	17 46%	18 55%	26 53%	18 44%	18 49%	26 49%
EXPANSION OF INDUSTRIAL AND BOAT BUILDING TRAINING CENTER	24 27%	7 28%	7 20%	10 33%	10 25%	10 32%	4 21%	3 15%	10 27%	11 33%	12 24%	12 29%	9 24%	15 28%

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Table 45A
 PROFILE I
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NON	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONO	LAO LL'ANG	MUANG BUA	AJSA- MART	PANOM PRAI	SI- HANNA PHUM	KASET WIFAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
AGE OF MALES	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
30 - 34	9	2	2	1		1		3		4	1	1	3
35 - 39	16	2	1	4	1			5	1	21X	5X	5X	11X
40 - 44	18X	20X	13X	36X	10X		25X	26X	10X	4	4	2	6
45 - 49	22	2	2	1	3	2		7	4	21X	19X	9X	21X
45 - 49	24X	20X	25X	9X	30X	21X		37X	40X	4	4	3	11
50 - 54	13	1	2	2		2	2	3	1	21X	19X	14X	39X
50 - 54	14X	15X	25X	18X		14X	25X	16X	10X	3	2	1	4
55+	14	2		1	3	3	2	1		16X	10X	18X	14X
55+	16X	20X		9X	30X	21X	25X	5X	20X	1	5	6	2
55+	16	1	1	2	3	5	2		2	5X	24X	27X	7X
55+	18X	10X	13X	18X	30X	36X	25X		20X	3	5	6	2
AGE FEMELES										16X	24X	27X	7X
25 - 29	8	1	1	1		1		2	2	2	1	1	4
30 - 34	9X	10X	13X	9X		7X		11X	20X	11X	5X	5X	14X
35 - 39	18	2	3	5	1		2	5		6	5	2	5
35 - 39	20X	20X	38X	45X	10X		25X	26X		32X	24X	9X	18X
40 - 44	14	1	2		1	2	1	6	1	3	1	3	7
40 - 44	16X	10X	25X		10X	14X	13X	32X	10X	16X	5X	14X	25X
45 - 49	14	2		2	1	3	1	3	2	3	3	3	5
45 - 49	16X	20X		18X	10X	21X	13X	16X	20X	16X	14X	14X	18X
50 - 54	17	1	2	1	4	4	2	2	1	3	5	6	3
50 - 54	19X	10X	25X	9X	40X	29X	25X	11X	10X	16X	24X	27X	11X
55+	9	2		1	1		1	1	3	1	3	2	3
55+	10X	20X		9X	10X		13X	5X	30X	5X	14X	9X	11X
55+	10	1		1	2	4	1		1	1	3	5	1
55+	11X	10X		9X	20X	29X	13X		10X	5X	14X	23X	4X
EDUCATION OF MALES													
FINISHED AND NOT FINISHED PRIMARY SCHOOL	85	9	7	11	10	15	8	18	9	16	21	22	26
FINISHED	94X	90X	88X	100X	100X	93X	100X	95X	90X	84X	100X	100X	93X
AND NOT FINISHED	5	1	1			1		1	1	3			2
SECONDARY SCHOOL EDUCATION OF FEMALES	6X	10X	13X			7X		5X	10X	16X			7X
FINISHED AND NOT FINISHED PRIMARY SCHOOL	88	9	8	11	10	14	8	18	10	10	21	22	27
FINISHED SECONDARY SCHOOL AND PRIMARY VOCATIONAL (AGRICULTURE)	98X	90X	100X	100X	100X	100X	100X	95X	100X	95X	100X	100X	96X
	2	1						1		1			1
	2X	10X						5X		5X			4X

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Table 45B
PROFILE I
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG./OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90 100X	25 100X	35 100X	30 100X	40 100X	31 100X	19 100X	20 100X	37 100X	33 100X	49 100X	41 100X	37 100X	53 100X
AGE OF MALES														
30 - 34	9 10X	9 36X			9 23X			5 25X	3 8X	1 3X	2 4X	7 17X	6 16X	3 6X
35 - 39	16 18X	16 64X			14 35X	2 6X		3 15X	10 27X	3 9X	4 10X	11 27X	6 16X	10 19X
40 - 44	22 24X		22 63X		13 33X	9 29X		4 20X	12 32X	6 18X	14 29X	8 20X	8 22X	14 26X
45 - 49	13 14X		13 37X		4 10X	8 26X	1 5X	4 20X	5 14X	4 12X	8 16X	5 12X	5 14X	8 15X
50 - 54	14 16X			14 47X		9 29X	5 26X	1 5X	4 11X	9 27X	7 14X	7 17X	6 16X	8 15X
55+	16 18X			16 53X		3 10X	13 68X	3 15X	3 8X	10 30X	13 27X	3 7X	6 16X	10 19X
AGE FEMALES														
25 - 29	8 9X	5 20X	3 9X		8 20X			2 10X	5 14X	1 3X	4 8X	4 10X	3 8X	5 9X
30 - 34	18 20X	15 60X	3 9X		18 45X			7 35X	7 19X	4 12X	5 10X	13 32X	9 24X	9 17X
35 - 39	14 16X	3 12X	11 31X		14 35X			2 10X	9 24X	3 9X	8 16X	6 15X	5 14X	9 17X
40 - 44	14 16X	1 4X	11 31X	2 7X		14 45X		5 25X	5 14X	4 12X	9 18X	5 12X	6 16X	8 15X
45 - 49	17 19X	1 4X	6 17X	10 33X		17 55X		3 15X	6 16X	8 24X	8 16X	9 22X	6 16X	11 21X
50 - 54	9 10X		1 3X	8 27X			9 47X	1 5X	4 11X	4 12X	7 14X	2 5X	5 14X	4 8X
55+	10 11X			10 33X			10 53X		1 3X	9 27X	8 16X	2 5X	3 8X	7 13X
EDUCATION OF MALES														
FINISHED AND NOT FINISHED PRIMARY SCHOOL	85 94X	23 92X	34 97X	28 93X	37 93X	30 97X	18 95X	18 90X	35 95X	32 97X	46 94X	39 95X	35 95X	50 94X
FINISHED AND NOT FINISHED SECONDARY SCHOOL	5 6X	2 8X	1 3X	2 7X	3 8X	1 3X	1 5X	2 10X	2 5X	1 3X	3 6X	2 5X	2 5X	3 6X
EDUCATION OF FEMALES														
FINISHED AND NOT FINISHED PRIMARY SCHOOL	88 98X	25 100X	34 97X	29 97X	40 100X	30 97X	18 95X	20 100X	36 97X	32 97X	48 98X	40 98X	36 97X	52 98X
FINISHED SECONDARY SCHOOL AND PRIMARY VOCATIONAL (AGRICULTURE)	2 2X		1 3X	1 3X	1 3X	1 3X	1 5X	1 3X	1 3X	1 3X	1 2X	1 2X	1 3X	1 2X

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Table 46A
 PROFILE II
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NON	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJBA- MART	PANOM PRAI	SU- WANNA PHUME	KASET WISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
DURATION OF LIVING IN THE VILLAGE	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
SINCE BIRTH	44	4	2	4	6	5	4	15	4	6	10	10	18
1 - 14 YEARS	47X	40X	25X	36X	60X	36X	50X	79X	40X	32X	48X	45X	64X
15 - 19 YEARS	12	2	3	2		1	1	2	1	5	2	2	3
20 - 24 YEARS	13X	20X	38X	18X		7X	13X	11X	10X	26X	10X	9X	11X
25+ YEARS	9	1	2	1	1	2	1		1	3	2	3	1
TOTAL HOUSEHOLD MEMBERS	10X	10X	25X	9X	10X	14X	13X		10X	16X	10X	14X	4X
4 OR LESS	11	2		1	1	2	1	2	2	2	2	3	4
5	12X	20X		9X	10X	14X	13X		10X	11X	10X	14X	14X
6	14	1	1	3	2	4	1	11X	20X	11X	10X	14X	14X
7+	16X	10X	13X	27X	20X	29X	13X		20X	16X	24X	18X	7X
ADULTS AGES 15+ YEARS	27	2	2	4	2	3	2	8	4	3	7	6	11
2	30X	20X	25X	36X	20X	21X	25X	42X	40X	16X	33X	27X	39X
3	27	4	2	2	3	2	4	8	2	6	5	6	10
4	30X	40X	25X	18X	30X	14X	50X	42X	20X	32X	24X	27X	36X
5+	20	1	3	3	4	3	1	3	2	6	6	3	5
CHILDREN AGED UNDER 15 YEARS	22X	10X	36X	27X	40X	21X	13X	16X	20X	32X	29X	14X	18X
1	16	3	1	2	1	6	1		2	4	3	7	2
2	18X	30X	13X	18X	10X	43X	13X		20X	21X	14X	32X	7X
3	22	2	3		1		1	12	3	4	2	1	15
4	24X	20X	38X		10X		13X	63X	30X	21X	10X	5X	54X
5+	32	4	3	7	4	6	1	5	2	7	11	8	6
CHILDREN AGED UNDER 15 YEARS	36X	40X	38X	64X	40X	43X	13X	26X	20X	37X	52X	36X	21X
1	20	3	1	2	3	3	2	2	4	5	4	5	6
2	22X	30X	13X	18X	30X	21X	25X	11X	40X	26X	19X	23X	21X
3	16	1	1	2	2	5	4		1	3	4	8	1
4	18X	10X	13X	18X	20X	36X	50X		10X	16X	19X	36X	4X
5+	14	1	2	1	1	5	2	2		4	2	7	1
CHILDREN AGED UNDER 15 YEARS	16X	10X	25X	9X	10X	36X	25X	11X		21X	10X	32X	4X
1	31	4	3	3	6	5	3	5	2	8	6	8	7
2	34X	40X	38X	27X	60X	36X	38X	26X	20X	42X	38X	36X	25X
3	18	2	1	1	1	2		7	4	3	2	2	11
4	20X	20X	13X	9X	10X	14X		37X	40X	16X	10X	9X	39X
5+	8	1	2	1	1	1		2		3	2	1	2
NONE	9X	10X	25X	9X	10X	7X		11X		16X	10X	5X	7X
	19	2		5	1	1	3	3	4	1	7	4	7
	21X	20X		45X	10X	7X	38X	16X	40X	5X	33X	18X	25X

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Table 46B
PROFILE II
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000-	7000- 14999	15000+	YES	NO	YES	NO
		100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
DURATION OF LIVING IN THE VILLAGE	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
SINCE BIRTH	44	13	17	14	19	15	10	11	17	16	22	22	20	24
1 - 14 YEARS	49X	52X	49X	47X	48X	48X	53X	55X	46X	48X	45X	34X	54X	45X
15 - 19 YEARS	12	9	2	1	11		1	3	7	2	5	7	9	3
20 - 24 YEARS	13X	36X	6X	3X	28X		5X	15X	19X	6X	10X	17X	24X	6X
25+ YEARS	9	1	8		7	2		2	3	4	4	5	2	7
TOTAL HOUSEHOLD MEMBERS	10X	4X	23X		18X	6X		10X	8X	12X	8X	12X	5X	13X
4 OR LESS	11	2	7	2	3	7	1	2	6	3	6	5	2	9
5	12X	8X	20X	7X	8X	23X	5X	10X	16X	9X	12X	12X	5X	17X
6	14		1	13		7	7	2	4	8	12	2	4	10
7+	16X		3X	43X		23X	37X	10X	11X	24X	24X	5X	11X	19X
ADULTS ACES 15+ YEARS	27	7	10	10	12	8	7	6	10	11	15	12	10	17
2	30X	28X	29X	33X	30X	26X	37X	30X	27X	33X	31X	29X	27X	32X
3	27	10	10	7	14	9	4	6	11	10	15	12	12	15
4	30X	40X	29X	23X	35X	29X	21X	30X	30X	30X	31X	29X	32X	28X
5+	20	5	9	6	10	7	3	5	9	6	11	9	9	11
CHILDREN AGED UNDER 15 YEARS	22X	20X	26X	20X	25X	23X	16X	25X	24X	18X	22X	22X	24X	21X
1	16	3	6	7	4	7	5	3	7	6	8	8	6	10
2	18X	12X	17X	23X	10X	23X	26X	15X	19X	18X	16X	20X	16X	19X
3	22	14	6	2	19	1	2	7	10	5	11	11	9	13
4	24X	56X	17X	7X	48X	3X	11X	35X	27X	15X	22X	27X	24X	25X
5+	32	7	15	10	14	13	5	6	14	12	16	16	12	20
CHILDREN UNDER 15 YEARS	36X	28X	43X	33X	35X	42X	26X	30X	38X	36X	33X	39X	32X	38X
1	20	3	9	8	6	8	6	3	8	9	13	7	9	11
2	22X	12X	26X	27X	15X	26X	32X	15X	22X	27X	17X	17X	24X	21X
3	16	1	5	10	1	9	6	4	5	7	9	7	7	9
4+	18X	4X	14X	33X	3X	29X	32X	20X	14X	21X	18X	17X	19X	17X
CHILDREN UNDER 15 YEARS	14	3	4	7	3	9	2	3	5	6	7	7	5	9
1	16X	12X	11X	23X	8X	29X	11X	15X	14X	18X	14X	17X	14X	17X
2	31	9	13	9	14	12	5	8	9	14	14	17	15	16
3	34X	36X	37X	30X	35X	39X	26X	40X	24X	42X	29X	41X	41X	30X
4+	18	7	9	2	13	3	2	5	12	1	12	6	8	10
NONE	20X	28X	26X	7X	33X	10X	11X	25X	32X	3X	24X	15X	22X	19X
1	8	5	2	1	6	1	1	1	5	2	3	5	2	6
2	9X	20X	6X	3X	15X	3X	5X	5X	14X	6X	6X	12X	5X	11X
3	19	1	7	11	4	6	9	3	6	10	13	6	7	12
4+	21X	4X	20X	37X	10X	19X	17X	15X	16X	30X	27X	15X	19X	23X

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Table 47A
 PROFILE III
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONG BUA	NONG TAP THAI	NA NUAL	BDR PAN KAN	HIN KONG	LAO LUANG	MUANG BUA	AJSA- MART	PANDH PRAI	SU- WANNA PHUM	KASET WISAI
Total	9C 100X	10 100X	0 100X	11 100X	10 100X	14 100X	8 100X	19 100X	10 100X	19 100X	21 100X	22 100X	28 100X
MAIN OCCUPATION													
FARMER	90 100X	10 100X	8 100X	11 100X	10 100X	14 100X	8 100X	19 100X	10 100X	19 100X	21 100X	22 100X	28 100X
MAIN CROP GROWN													
GLUTINOUS	61 68X	8 80X	8 100X	11 100X	5 50X	9 64X		17 89X	3 30X	16 84X	16 76X	9 41X	20 71X
HIGH YIELD VARIETY	34 38X	2 20X		2 18X	6 60X	6 43X	8 100X	2 11X	8 80X	3 16X	8 38X	14 64X	9 32X
LOCAL VARIETY	3 3X	1 10X						2 11X		1 5X			2 7X
TOBACCO	4 4X		4 50X							4 21X			
FARM INCOME (BAHT/ANNUM.)													
LESS THAN 3000	15 17X	2 20X	3 38X	3 27X		3 21X		4 21X		5 26X	3 14X	3 14X	4 14X
5000 - 9999	34 38X	4 40X	4 50X	2 18X	4 40X	5 36X	2 25X	8 42X	5 50X	8 42X	7 33X	6 27X	13 46X
10000 - 14999	20 22X	3 30X		4 36X	2 20X	2 20X	3 38X	6 32X	2 20X	4 21X	5 24X	4 18X	7 25X
15000 OR MORE	21 23X	1 10X	1 13X	2 18X	4 40X	6 43X	3 38X	1 5X	3 30X	2 11X	6 29X	9 41X	4 14X
OTHER SOURCES (BAHT/ANNUM.)													
LESS THAN 3000	20 22X	2 20X	4 50X	2 18X		6 43X	1 13X	4 21X	1 10X	6 32X	2 10X	7 32X	5 18X
3000 - 5999	23 26X	5 50X	1 13X	3 27X	2 20X	3 21X	1 13X	5 26X	3 30X	7 37X	4 19X	4 18X	8 29X
6000 OR MORE	12 13X	3 30X	1 13X	2 18X	2 20X	2 20X	3 38X	1 5X	1 10X	3 16X	5 24X	3 14X	1 4X
TOTAL INCOME (BAHT/ANNUM.)													
LESS THAN 3000	9 10X		1 13X	2 18X		2 14X		4 21X		1 5X	2 10X	2 9X	4 14X
5000 - 9999	32 36X	4 40X	3 38X	2 18X	4 40X	6 43X	2 25X	8 42X	3 30X	8 42X	6 29X	7 32X	11 39X
10000 - 14999	16 18X	1 10X	3 38X	3 27X				5 26X	4 40X	5 26X	2 10X	1 5X	8 29X
15000 - 19999	17 19X	3 30X	1 13X	2 18X	3 30X	2 14X	3 38X	2 11X	1 10X	4 21X	5 24X	5 20X	3 11X
20000 OR MORE	16 18X	2 20X		2 18X	3 30X	4 29X	3 38X		2 20X	1 5X	6 29X	7 32X	2 7X

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Table 47B
 PROFILE III
 Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
MAIN OCCUPATION														
FARMER	90	25	35	30	40	31	19	20	37	33	49	41	37	53
100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
MAIN CROP GROWN														
GLUTINOUS	61	21	27	13	33	21	7	18	30	13	29	32	29	32
68X	84X	77X	43X	83X	68X	37X	90X	51X	39X	59X	78X	78X	29X	60X
HIGH YIELD VARIETY	34	6	8	20	9	12	13	3	9	22	24	10	9	25
38X	24X	23X	67X	23X	39X	68X	15X	24X	67X	49X	24X	24X	24X	17X
LOCAL VARIETY	3	2	1	3	3						1	2	3	3
3X	8X	3X		8X							2X	5X	6X	6X
TOBACCO	4	2	2	3	3	1	2	2				4	3	1
4X	8X	6X		8X	3X		10X	5X			10X		8X	2X
FARM INCOME (BAHT/ANNUM.)														
LESS THAN 3000	15	7	6	2	9	5	1	14	1		6	9	8	7
17X	28X	17X	7X	23X	16X	5X	70X	3X		12X	22X	22X	13X	13X
5000 - 9999	34	9	17	8	18	12	4	6	27	1	16	18	16	18
38X	36X	49X	27X	45X	39X	21X	30X	73X	3X	33X	44X	43X	34X	34X
10000 - 14999	20	9	5	6	9	5		9	11		13	7	6	14
22X	36X	14X	20X	23X	19X	26X		24X	33X		27X	17X	16X	26X
15000 OR MORE	21	7	14	4	4	8					14	7	7	14
23X		20X	47X	10X	26X	47X				64X	29X	17X	19X	26X
OTHER SOURCES (BAHT/ANNUM.)														
LESS THAN 3000	20	9	7	4	13	4	3	8	7	5	10	10	9	11
22X	36X	20X	13X	33X	13X	16X	40X	19X	15X		20X	24X	24X	21X
3000 - 5999	23	8	11	4	12	7	4		9		12	11	8	15
26X	32X	31X	13X	30X	23X	21X		38X	27X		24X	27X	22X	28X
6000 OR MORE	12	3	5	4	6	3	3		2	10	8	4	3	9
13X	12X	14X	13X	15X	10X	16X		5X	30X		16X	10X	8X	17X
TOTAL INCOME (BAHT/ANNUM.)														
LESS THAN 5000	9	3	4	2	5	3	1	9			5	4	6	3
10X	12X	11X	7X	13X	10X	5X		45X			10X	10X	16X	6X
5000 - 9999	32	13	12	7	17	12	3	11	21		13	19	14	18
36X	52X	34X	23X	43X	39X	16X		55X	57X		27X	46X	38X	34X
10000 - 14999	16	5	9	2	10	4	2		16		10	6	7	9
18X	20X	26X	7X	25X	13X	11X			43X		20X	15X	19X	17X
15000 - 19999	17	2	5	10	5	6	6				12	5	6	11
19X	8X	14X	33X	13X	19X	32X				17	12	5	6	11
20000 OR MORE	16	2	5	9	3	6	7				52X	24X	12X	16X
18X	8X	14X	30X	8X	19X	37X				48X	18X	17X	11X	23X

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Table 4BA
PROFILE IV
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	A R E A											
		T A M B O L								A M P H U R			
		NOM	NONO BUA	NONO TAP THAI	NA NUAL	BOR PAN KAN	HIN KONG	LAO LUANG	MUANG DUA	AJSA- MART	PANDH PRAI	SU- WANNA PIHME	KASET HISAI
Total	90	10	8	11	10	14	8	19	10	19	21	22	28
HOUSHOLD APPLIANCES	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X	100X
BICYCLE	74	9	7	10	9	11	7	13	8	17	19	18	20
RADIO	82X	90X	88X	91X	90X	79X	88X	68X	80X	89X	90X	82X	71X
FAN	73	9	8	8	8	14	7	13	6	18	16	21	18
TELEVISION	81X	90X	100X	73X	80X	100X	88X	68X	60X	18	95X	76X	95X
MOTORCYCLE	43	6	1	10	3	9	1	7	6	95X	76X	95X	64X
SEWING MACHINE	48X	60X	13X	91X	30X	64X	13X	37X	60X	8	13	9	13
RICE COOKER	19	1	1	3	4	2	1	4	3	42X	62X	41X	46X
PROTABLE DIESEL ENGINE (AGRI. USE) SPRAYER	21X	10X	13X	27X	40X	14X	13X	21X	30X	2	8	2	7
PICKUP TRUCK	16	3		1		4	1	4	3	11X	38X	9X	25X
REFRIGERTOR	18X	30X		9X		29X	13X	21X	30X	4	1	5	6
MECHANICAL BUFFALO	13	2	2	3	2	2		1	1	21X	5X	23X	21X
CAR	14X	20X	25X	27X	20X	14X		5	10X	3	6	2	2
NONE	10	2		1	1	2		2	2	16X	29X	9X	7X
ELECTRICITY USE IN HOUSEHOLD	11X	20X		9X	10X	14X		11X	20X	1	3	2	4
ELECTRICAL AUTHORITY	8	5		1	1		1			5X	14X	9X	14X
NO ELECTRICITY	5		2					3		26X	10X	5X	
WATER SOURCE FOR HOUSEHOLD	6X		25X					16X		2		1	2
WELL	3X					1	1		1	11X		5X	7X
POND/STREAM	3X	1		1	10X		13X		10X		2	9X	1
RAINFALL	3	10X					1				10X	1	4X
WATER SUPPLY	2	10X					13X			1	10X	5X	
WATER SUPPLY	1	1					13X			1	5X	5X	
WATER SUPPLY	1X	10X					13X			5X		5X	
WATER SUPPLY	1							1		5X			1
WATER SUPPLY	1X							5X					4X
ELECTRICITY USE IN HOUSEHOLD	71	9	5	11	7	13	2	16	8	15	18	14	24
NO ELECTRICITY	79X	90X	63X	100X	70X	93X	25X	84X	80X	79X	86X	64X	86X
WATER SOURCE FOR HOUSEHOLD	19	1	3		3	1	6	3	2	4	3	8	4
WELL	21X	10X	38X		30X	7X	75X	16X	20X	21X	14X	36X	14X
POND/STREAM	86	10	7	8	10	14	8	19	10	18	18	22	28
RAINFALL	96X	100X	88X	73X	100X	100X	100X	100X	100X	95X	86X	100X	100X
WATER SUPPLY	7	5		2	20X	5	4	17	10	5	2	9	27
WATER SUPPLY	8X	50X	8	7	10	36X	50X	89X	100X	26X	10X	41X	96X
WATER SUPPLY	69	8	8	7	10	5	4	17	10	17	16	9	27
WATER SUPPLY	77X	80X	100X	64X	100X	36X	50X	89X	100X	89X	76X	41X	96X
WATER SUPPLY	8			7	1					1	7		
WATER SUPPLY	9X			64X	10X					5X	33X		

2/12

Table 48B
PROFILE IV
Base: ALL RESPONDENTS

IN-DEPTH INTERVIEW

	Total	AGE OF MALES			AGE OF FEMALES			TOTAL INCOME (BAHT/ANNUM.)			BORROWING MONEY FROM BANK/OTHERS		BUYING AG. /OTHER GOODS WITH CREDIT	
		LESS THAN 40	40-49	50+	LESS THAN 40	40-49	50+	LESS THAN 7000	7000-14999	15000+	YES	NO	YES	NO
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total	90	25	35	30	40	31	19	20	37	33	49	41	37	53
HOUSEHOLD APPLIANCES	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
BICYCLE	74	20	30	24	31	27	16	14	32	28	40	34	28	46
RADIO	73	19	30	24	32	25	16	15	32	26	39	34	33	40
FAN	81%	76%	86%	80%	80%	81%	84%	75%	86%	79%	80%	83%	89%	75%
TELEVISION	48%	48%	43%	53%	45%	45%	58%	9	16	18	25	18	17	26
MOTORCYCLE	21%	16%	20%	27%	25%	16%	21%	2	8	9	11	8	7	12
SEWING MACHINE	18%	16%	11%	27%	15%	13%	32%	2	8	6	13	3	5	11
RICE COOKER	14%	12%	9%	23%	10%	13%	26%	5	2	6	5	8	7	6
PORTABLE DIESEL ENGINE (AGRI. USE)	11%	8%	9%	17%	8%	10%	21%	1	5	4	5	5	2	8
SPRAYER	8	2	1	5	2	3	3		1	7	4	4	2	6
PICKUP TRUCK	5	2	2	1	4	10%	16%	1	3	21%	8%	10%	5%	11%
REFRIGERATOR	6%	8%	6%	3%	10%		5%	5%	8%	3%	2	3	3	2
MECHANICAL BUFFALO	3			3		2	1			3	2	1	1	2
CAR	3%			3		6%	5%			9%	4%	2%	3%	4%
NONE	3			3			3		1	6%	4%	2%	2	1
ELECTRICITY USE IN HOUSEHOLD	2%	4%		3%	3%		1		2	2	1	1	1	1
ELECTRICAL AUTHORITY	1%			1			1			3%	2%	1	1	1
NO ELECTRICITY	1%		1	3%	3%		5%				2%	2%	2%	2%
WATER SOURCE FOR HOUSEHOLD	1%		3%	3%	3%		1				1	1	1	1
WELL	86%	23	35	28	38	30	18	18	36	32	47	39	34	52
POND/STREAM	7	2	3	2	3	2	2	1	2	4	96%	95%	92%	98%
RAINWATER	8%	8%	9%	7%	8%	6%	11%	5%	5%	12%	2	5	7	7
WATER SUPPLY	69	22	27	20	34	21	14	13	31	25	4%	12%	13%	13%
	77%	88%	77%	67%	85%	68%	74%	65%	84%	76%	37	32	26	43
	8	3	1	4	4	1	3	1	4	3	76%	78%	70%	81%
	9%	12%	3%	13%	10%	3%	16%	5%	11%	9%	7	1	4	4
											14%	2%	11%	9%

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DEEMAR COMPANY LIMITED
29/5 Soi Saladadeng 1
Saladaeng Rd.,
Bangkok

Job No. 9953
Q'naire No. _____

IN-DEPTH QUESTIONNAIRE

Respondent's name : _____

Address : _____

_____ Tel. _____

Interviewer's name : _____

Date of Interview : _____

Time of Interview started : _____ ended: _____

Witnessed by/quality control : _____

Date of quality control : _____

Village No. : _____

Code for village :

- | | | | |
|-------------------------|---|-------------------|---|
| Tambol : Nom | 1 | Bor Pan Kan | 5 |
| Nong Bua | 2 | Hin Kong | 6 |
| Nong Tap Thai | 3 | Lao Luang | 7 |
| Na Nual | 4 | Muang Bua | 8 |
| Amphur : Ajsamart | 1 | | |
| Panom Prai | 2 | | |
| Su-wdnnaphume | 3 | | |
| Kasetwisai | 4 | | |

Interviewer Instruction: Select one couple from the group interview on the basis of their willingness to cooperate and give opinions and the scope of their personal experiences on the various topics discussed.

Introduction : I've asked you two to stay for just a little longer because I think you have some interesting experiences for us. I was wondering if you could just describe in a bit more detail your experiences on the following topics.

In the next few questions I want to ask you about what you do when you need extra money (cash). We will talk about purchasing supplies on credit later.

I. BORROWING MONEY

1. Last year, when you needed money (cash), from what source did you get it?

- Friends/relative 1
- Rice mill 2
- Local shopkeeper 3
- Commercial Bank 4
- BAAC 5
- Local money lender 6
- Others (specify) _____ 7 (GO TO Q.4)

2. Have you ever borrowed money from a bank or any other official source?

- Yes 1
- No 2

IF "NO", ASK

2a. Why not?

IF "YES", ASK

2b. Was the official source better/worse than the normal source?

- Better 1
- Worse..... 2

2c. Why did you say that?

2d. How much did you borrow from the official source?

_____ baht

2e. In borrowing money from a bank or an official source, did you experience any of the following difficulties or problems?

- Location/office was far away/required
a long journey..... 1
- Many visits were required 2
- A lot of complicated paper work required ... 3
- It took a long time before I got the money.. 4
- I was not treated well 5
- I was unaware of the costs/rates/fees 6
- I was unaware of the payment terms 7
- I did not get as much money as I wanted 8
- There were special requirements/collateral.. 9
- Officials were corrupt/needed tea money..... 0

2f. Were there any other problems you encountered?

3. This year, do you plan or have you borrowed any money from any source?

- Yes 1
- No 2

IF "YES"

3a. From what source?

- Friends/relative 1
- Rice mill 2
- Local shopkeeper 3
- Commercial Bank 4
- BAAC 5
- Local money lender 6
- Others (specify) _____ 7

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II. CREDIT FOR GOODS

In the next few questions, I want to ask you about getting goods on credit.
(Emphasize that we are not talking about money or cash)

1. Last year, did you get any goods, agricultural or other goods on credit?
Yes 1
No 2

IF "NO"

- 1a. Why did you not get any supplies on credit?
Able to buy with own money.... 1
Borrowed money instead..... 2
Not necessary 3
Others (specify) _____ 4

IF "YES"

- 1b. Where did you get credit for goods?
(Ask for each type of goods answered as appropriate)

<u>Type of goods</u>	<u>Source</u>
_____	_____
_____	_____
_____	_____
_____	_____

- 1c. Is getting credit for goods a normal practice?
Yes 1
No 2

- 1d. Do you think you are getting a fair deal?
Yes 1
No 2

- 1e. Why did you say that (answer in 1d)?

2. What would happen if you couldn't get credit?

III.1 FERTILIZER

1. Last year, where did you get/buy your fertilizer?

- From ag.ext. 1
- At fertilizer/ag. chem shop 2
- From rice mill 3
- Use own organic fertilizer 4
- Other supply source (specify)
_____ 5

2. Would you use it if you had to buy it?

- Yes 1
- No 2

ASK ALL

3. Do you think it makes a difference?

- Yes 1
- No 2

IF "YES

3a. Why?

4. Do you use it as a regular part of your cultivation practice?

- Yes 1
- No 2

5. Why did you say that?

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III.2 SEEDS

1. Last year, where did you get/buy your seeds?
- From ag.ext. 1
 - At seed/ag. chem shop 2
 - From rice mill 3
 - Use own seeds 4
 - Other (specify) _____ 5

ASK RESPONDENTS WHO ANSWERED CODE "2", "3" IN Q.1

2. How did you pay for seeds?
- Cash 1
 - Credit 2
 - Others (specify) _____ 3

3. What kind(s) of seeds do you use last year?
- _____
- _____

4. Did you have any problem with seed that you used last year? (please explain)
- _____
- _____

5. Did your crops that you got from using these seeds have good value for money?

Yes	1	1	1	1	1	1
No	2	2	2	2	2	2

6. What kind of seeds are you going to use/have you used this year?
- _____
- _____

7. Where will/did you get these seeds?
- From ag.ext. 1
 - At seed/ag. chem shop 2
 - From rice mill 3
 - Use own seeds 4
 - Other (specify) _____ 5

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8. Which other sources are you know of, where you can get seeds?

ASK Q. 9-12, IF ANSWERED MORE THAN ONE SOURCE AT Q.7 & 8, OTHERS GO TO NEXT SECTION

9. Which source, do you think, is your best source?

10. Why did you say so?

11. Which source, do you think, is your worse source?

12. Why did you say so?

III. 3 PRODUCTION/YIELD

SHOW CARD

1. How satisfied are you with your last year's yield?
- | | |
|--------------------------|---|
| Very satisfied | 5 |
| Quite satisfied | 4 |
| Slightly satisfied | 3 |
| Not very satisfied | 2 |
| Not satisfied | 1 |

2. Did you have any problems about growing crops last year?

3. Did you receive any assistance from any official sources?

4. What factors, do you think, have an effect on increase of your yield?

5. This year, how much yield will you expect for each crop?
Will it increase, decrease?

- | | |
|----------------|---|
| Increase | 1 |
| Decrease | 2 |
| The same | 3 |

6. Why did you say so?

IV. OTHER INPUTS AND SERVICES

1. Could you tell me about any good experiences you have had with agricultural extension services?

2. Could you tell me about any bad experiences you have had with agricultural extension services?

3. Do ag. chem companies have any influence in this (rural) area?

Yes 1

No 2

IF "YES"

3a. How influential are they? Please give some examples.

4. Is there a lot of corruption going on?

Yes 1

No 2

5. Why did you say that?

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V. QUALITY OF LIFE SECTION

In this next section, I will primarily be addressing the women in the group, but you men feel free to give your opinions and answers also. We will be talking generally about your life in the village and how it has changed in the last 5-10 years, be it change for the better or change for the worse.

1. Thinking of everything that has happened in the past 5-10 years, what do you think has had the biggest effect on life in the village on the positive side, i.e. that has made living here better? (Do not prompt) Is there anything else which you think has had a big effect?
(Record up to 3 items)

- i. _____
- ii. _____
- iii. _____

Do you men agree with the above three factors? If not, what would be your 3 choices?

(Record the different choices.)

- i. _____
- ii. _____
- iii. _____

2. Now to look at the other side, has anything happened in the past 5-10 years which you think has made life in the village not as good as it used to be? (Do not prompt) Anything else? (Record up to 3 items)

- i. _____
- ii. _____
- iii. _____

Do you men agree? If not, what are your views?

- i. _____
- ii. _____
- iii. _____

3. Let's talk now about nutrition. Do you think that people in the village are eating better than they were 5-10 years ago?

- Much better 5
- Somewhat better 4
- A little better 3
- About the same 2
- Not as well as before. 1

IF "1"

3a. Why do you say that?

- Not enough money to buy food 1
- Less variety of food/crops grown
in village 2
- Quantity is less 3
- More people in village than before .. 4
- Worse agricultural conditions 5
- Other reason (specify)_____ 6

IF "5, 4, 3 OR 2"

3b. Why do you say that?

- More food/crops grown in village..... 1
- Greater income from crops/more money 2
- Better knowledge of nutrition..... 3
- Less children/people thus more food.. 4
- Assistance from government 5
- Assistance from other source
(specify)_____ 6
- Other reason (specify)_____ 7

SHOW CARD C

4. What about the health of villagers, adults as well as children, how has this changed in the past 5-10 years?

- Much better 5
- Somewhat better 4
- A little better 3
- About the same 2
- Not as well as before. 1

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IF "1"

4a. Why do you say that?

- Poorer nutrition 1
- Less sanitation 2
- Pollution of water 3
- Use of herbicides and insecticides .. 4
- Widespread use of drugs 5
- Greater workload at health center/
hospital 6
- Other reason (specify) _____ 7

IF "5, 4, 3 OR 2"

4b. Why do you say that?

- More health centers built in area.... 1
- Better transportation to hospital ... 2
- More doctors and nurses visit 3
- Mobile health units 4
- Better sanitation in village..... 5
- More drugs available 6
- Other reason (specify) _____ 7

5. Talking now specifically about the health and nutrition of children in the village compared to 5-10 years ago, do you think children growing up now are healthier than before?

- Much better 5
- Somewhat better 4
- A little better 3
- About the same 2
- Not as well as before. 1

6. Have there been any health problems that have come about from the more intensive use of pesticides in farming?

- Yes 1
- No 2

IF "YES"

6a. What types of problems?

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7. Talking now about public utilities, compared with 5-10 years ago, do you now have(read out)

- Electricity 1
- Better water supply 2
- Better roads to the village 3

8. In terms of material possessions, do you think people in the village are better off?

- Yes 1
- No 2

8a. What things do people have more of now than they had about 5-10 years ago?

- Motor car 1
- Pickup truck 2
- Motorcycle 3
- Bicycle 4
- Television 5
- Radio 6
- Refrigerator 7
- Sewing machine 8
- Other (specify) _____ 9

9. Would you say that people are better informed about events outside the village than they were 5-10 years ago?

- Yes 1
- No 2

10. How about on the monetary side, do you feel that you have more money to spend than you did 5-10 years ago?

- Yes 1
- No 2

11. Given all the things we've talked about, would you change your answers to the first 2 questions (repeat if necessary) in any way? (Record any changes)

- i. _____
- ii. _____
- iii. _____

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12. Have you heard of any of these programs? (awareness)
 (list of programs by AID, other donors, and Government)

Pasture Improvement Project	1
Tung Kula Ronghai Project	2
Water Resources Development	3
Fisheries Development Project	4
Flood Control and Irrigation	5
<hr/>	
Experimental and Demonstration Farm for Irrigated, Agriculture.....	6
Self-help settlement	7
Agricultural Extension Service	8
Animal Health Project	9
Irrigation Project	0
<hr/>	
Water Supply	1
Ubol Ratana Dam Improvement	2
Irrigation Improvement Project.....	3
National Agriculture Extension Project	4
Expansion of Industrial and Boat Building Training Center	5
<hr/>	
Sericulture Research and Training Center	6
Institute for skill Development ...	7
Animal Health Improvement Project in Foot-and-Mouth Disease Vaccine Production Center	8
Pump Irrigation	9
Water Resources Development	0
<hr/>	
Village Fishpond Development	1
Small Scale Irrigation	2
Rainfed Agriculture Development ...	3
Integrated Rural Development Project	4
Seed Development	5
Pasture Improvement Project	6

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BIO-DATA

Before we start, I want to just ask all of you a few questions about yourselves so that we can use this information to help us analyse the data at a later stage.

1. First of all can you tell me how old you are?
Male respondent 1
Female respondent 2

2. How long have you lived in the village?
Since birth 1
Other (specify years) _____ 2

3. What is the main occupation of your household?
Farmer 1
Other (specify) _____ 2

4. What is the main crop you grow?
Glutinous rice 1
High yield variety..... 2
Local variety 3
Cassava 4
Other (specify) _____ 5

5. Approximately how much is your annual income from farming?
And from other sources? (Specify in Baht/annum.)
Farm income
Other source
=====
6. What is your education level?
(pre-coded)
Male respondent 1
Female respondent 2

7. How many members in your household including yourselves? How many of these are adults 15 years or over and how many are children under 15 years?

Total h/h members _____
Adults 15+ _____
Children under 15 _____

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8. Does your house have electricity? Yes, Electrical Authority .. 1
 Yes, own generator 2
 No 3

9. What is the water source for your household? Well 1
 Pond/stream 2
 Rainwater 3
 Other (specify) _____

10. I am going to read you a list of some items and I want you to tell me whether you have these in your household?

Car 1
 Pickup truck 2
 Motorcycle 3
 Bicycle 4
 Portable diesel engine (agri.use) 5
 Television 6
 Radio 7
 Fan 8
 Sewing Machine 9
 Refrigerator 1
 Rice cooker 2
 Mechanical buffalo 3
 Other (specify) _____ 4

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บริษัท ดิมาร์ จำกัด
29/5 ซอยศาลาแดง
ถนนศาลาแดง
กรุงเทพฯ 10500
โทร. 2353487

T.1 (1)
Job No. 9953 (2-5)
Q'naire No. _____ (6-8)

IN-DEPTH INTERVIEW

ชื่อผู้ให้สัมภาษณ์: _____

ที่อยู่: _____

โทรศัพท์: _____

ชื่อหน่วยงานสัมภาษณ์: _____

วันที่สัมภาษณ์: _____

เวลาที่สัมภาษณ์; เริ่มเวลา: _____ เสร็จเวลา: _____

เลขที่หมู่บ้าน _____ ครัวเรือนที่บ้าน : _____

- ตำบล
- หนอง 1 (9)
 - หนองบัว 2
 - หนองหัวไทย 3
 - นามาด 4
- อำเภอ
- อาจสามารถ 1 (10)
 - พนมไพร 2
 - สุวรรณภูมิ 3
 - เกษตรวิสัย 4
-
- บ่อพันขัน 5
 - พันอง 6
 - เหล่าหลวง 7
 - เมืองบัว 8

พนักงานสัมภาษณ์: เลือกผู้เข้ากลุ่มสนทนา 1 คู่ โดยคำนึงถึงความแตกต่างในการให้ความคิดเห็นต่าง ๆ
เพิ่มเติมจากที่ได้คุยกับแม่ค้าในกลุ่มสนทนา

บทนำ ดิฉันขอให้คณบดีส่งคุณ อยู่ต่ออีกสักครู่นึง เพราะดิฉันสนใจประสบการณ์ของคุณ และอยากขอให้คุณ ช่วยเล่าประสบการณ์ของคุณเพิ่มเติมในหัวข้อต่าง ๆ ต่อไปนี้ค่ะ

I. การขอกู้

1. ปีที่แล้ว เวลาที่คุณต้องการเงินสด คุณขอ
 - กู้เงินจากที่ใดบ้างคะ
 - เพื่อน/ญาติ 1 (11)
 - โรงสีข้าว 2 (12)
 - เจ้าของร้านขายของในอำเภอ 3 (13)
 - ธนาคารพาณิชย์ 4 (14)
 - ธนาคารเพื่อการเกษตรและสหกรณ์ 5

- คนที่ปล่อยเงินกู้ในอำเภอ 6
 - อื่น ๆ (ระบุ) 7

2. ปีที่แล้ว คุณเคยขอกู้เงินสดจากธนาคาร
 - หรือจาก หน่วยงานต่าง ๆ ของ
 - ทางราชการบ้างหรือไม่คะ
 - เคย 1 (15)
 - ไม่เคย 2

ถ้า "ไม่เคย" ตาม ข้อ 2ก แล้วข้ามไปถามข้อ 3

2ก. เพราะอะไร คุณจึงไม่เคยขอกู้เงินจากธนาคารหรือจากหน่วยงานต่าง ๆ ของทางราชการ เลยล่ะคะ

16 17 18 19

ถ้า "เคย" ตาม

2ข. เมื่อเปรียบเทียบการขอกู้เงินสดจากหน่วยงานของรัฐบาล กับ เอกชน คุณคิดว่าการขอกู้จากแหล่งใดดีกว่าคะ

- กู้จากทางราชการดีกว่า 1 (20)
- กู้จากเอกชนดีกว่า..... 2

2ค. เพราะอะไร คุณจึงบอกว่า (คำตอบตามข้อ 2ข)

21 22 23 24

2ง. คุณขอเงินจากทางราชการเท่าไรคะ

_____ บาท

911

แสดงการ์ดข้อ ก

2๑. เงินการชดเชยเงินจากธนาคารหรือหน่วยงานของรัฐ คณะกรรมการตั้งต่อไปนี้บ้างหรือไม่

ธนาคารหรือหน่วยงานของรัฐตั้งอยู่ไกล/ใช้เวลา		
เงินการเดินทาง 1	(31)	
ต้องไปหลายเที่ยว 2	(32)	
มีเอกสารที่ต้องงัดขังและยุ่งยาก 3	(33)	
เสียเวลามากกว่าจะได้เงิน 4	(34)	
บริการไม่ดี 5	(35)	
<hr/>		
ไม่ทราบเรื่องค่าธรรมเนียมค่าใช้จ่ายต่าง ๆ .. 6	(36)	
ไม่ทราบเรื่องวิธีการผ่อนชำระ 7	(37)	
ไม่ได้เงินสดตามจำนวนที่ต้องการ 8	(38)	
มีข้อกำหนดพิเศษ/ต้องให้หลักทรัพย์ค้ำประกัน ... 9	(39)	
มีการคอร์รัปชัน/ต้องเสียค่าน้ำชา 0	(40)	

2๒. คณะกรรมการใดบ้างคะ

41 42 43 44

ถามทุกคน

3. มีใครวางแผนที่จะชดเชยเงิน/ได้ชดเชยเงินจากแหล่งใดบ้างหรือไม่

วางแผนที่จะชดเชย/ได้ชดเชยเงิน 1	(45)
ไม่ได้วางแผนที่จะชดเชยเงิน/ไม่ได้ชดเชยเงิน..... 2-	(เข้ามาพบ ตามท่านต่อไป)

ถ้า "วางแผนที่จะชดเชย/ได้ชดเชย" ตาม

3๓. คณะกรรมการใดบ้างคะ

เพื่อน/ญาติ 1	(46)
รังสีข้าว 2	(47)
เจ้าของร้านขายของอำเภอ 3	(48)
ธนาคารพาณิชย์ 4	(49)
ธนาคารเพื่อการเกษตรและสหกรณ์ 5	
<hr/>	
คนที่ปล่อยเงินกู้อำเภอ 6	
อื่น ๆ(ระบุ)..... 7	

4/2

II. การซื้อสินค้าเงินเชื่อ

ต่อไปนี้ คือข้อมูถามคุณเกี่ยวกับการซื้อสินค้าเงินเชื่อพร้อมรายละเอียด (เน้นว่า ไม่ได้พูดถึงเงินสด)

1. **บริษัท** คุณซื้อสินค้าเกี่ยวกับเกษตรกรรม หรือสินค้าอื่น ๆ เป็นเงินเชื่อ บ้างหรือไม่คะ
- ใช่ 1 (50)
- ไม่ได้ซื้อ 2

ถ้า "ไม่ได้ซื้อ" กถาม

- 1ก. เพราะอะไรคุณจึงไม่ได้ซื้อสินค้าเป็นเงินเชื่อ เคยคะ
- สามารถซื้อเป็นเงินสดได้ 1 (51)
- ชออื่นเงินสดมาซื้อ 2
- ไม่จำเป็น 3
- อื่น ๆ (ระบุ) _____ 4

ถ้า "ใช่" กถาม

- 1ข. คุณซื้อสินค้าอะไรด้วยเงินเชื่อคะ และคุณซื้อ (แต่ละชนิด) จากที่ไหนบ้างคะ (ถามและการอภิปรายแต่ละชนิด)

ชนิดของสินค้า	ชื่อซื้อจาก
52 53	54 55 56 57
58 59	60 61 62 63
64 65	66 67 68 69
70 71	72 73 74 75

- 1ค. การซื้อสินค้าเป็นเงินเชื่อ เป็นสิ่งที่หายากเป็นปกติ ในหมู่บ้านนี้หรือเปล่าคะ
- ใช่ 1 (76)
- ไม่ใช่ 2

- 1ง. กล่าวโดยรวม ๆ แล้ว คุณคิดว่าเงื่อนไขการซื้อสินค้าเงินเชื่อของคุณ ยุติธรรมดีหรือไม่คะ
- ยุติธรรม 1 (77)
- ไม่ยุติธรรม 2

- 1จ. เพราะอะไร คุณจึงบอกว่าง่าย (คำตอบในข้อ 14) คะ

	T.2(1)	2	3	4	5
		6	7	8	9
		10	11	12	13

III.1 ใบ

1. เป็นที่แล้ว คุณได้รับ/ซื้อใบจากที่ไหนคะ

- ได้รับของหลวง 1 (14)-(ถามข้อ 2)
- ซื้อที่ร้านขายใบ/ขายสินค้าเกษตร . 2 (15) } (เข้ามาใบ
- ซื้อจากรางสี 3 (16) } ถามข้อ 3)
- ไม่ได้ซื้อ ใบที่หาขึ้นเอง 4 (17)-(ถามข้อ 2)
- อื่น ๆ(ระบุ) 5

ถามเฉพาะคนที่ไม่ได้ซื้อใบ

2. คุณจะซื้อใบหรือไม่คะ ถ้าคุณต้องซื้อใบ

- ใช่ 1 (18)
- ไม่ใช่ 2

ถามทุกคน

3. คุณคิดว่า การซื้อใบ กับ การนำใบไปใช้
แตกต่างกันไหมคะ

- แตกต่างกัน 1 (19)
- ไม่แตกต่างกัน 2 -(เข้ามาใบถามข้อ 4)

ถ้า "แตกต่างกัน" ถาม

3ก. เพราะอะไร คุณจึงบอกว่า แตกต่างกัน ค่ะคะ

20 21 22 23

4. ปกติ คุณซื้อใบเป็นประเภทการ
เพาะปลูกของคุณ หรือไม่คะ

- ใช่ 1 (24)
- ไม่แน่ใจ 2

5. เพราะอะไร คุณจึง (คำตอบในข้อ 4)

25 26 27 28

29 30 31 32

444

III.2 แม่พิมพ์

1. เขียนว่า คุณได้รับ/ชื่อแม่พิมพ์จากที่ใดบ้างคะ
- | | | |
|---|--------|-------------------|
| ได้รับของหลวง | 1 (33) | } (ถาม
ชื่อ 3) |
| ชื่อที่ร้านขายแม่พิมพ์/ขายสินค้าเกษตร | 2 (34) | |
| ชื่อจากรางสี | 3 (35) | |
| จื๊แม่พิมพ์ของตัวเอง | 4 (36) | |
| อื่น ๆ(ระบุ) | 5 | |

ถามเฉพาะผู้ที่ชื่อแม่พิมพ์ (จำกัด 2, 3 ข้อ 1)

2. คุณจ่ายค่าแม่พิมพ์ อย่างไรคะ
- | | |
|--------------------|--------|
| เงินสด | 1 (37) |
| เงินเชื่อ | 2 (38) |
| อื่น ๆ(ระบุ) | 3 (39) |

3. เขียนคำ คุณใช้แม่พิมพ์ ใดบ้างคะ

_____	_____	_____	_____
_____	40	41	42 43
_____	_____	_____	_____
_____	44	45	46 47

4. คุณประสบปัญหาอะไรบ้างหรือไม่ เกี่ยวกับแม่พิมพ์ที่จื๊ (กรุณาอธิบาย)

_____	_____	_____	_____
_____	48	49	50 51
_____	_____	_____	_____
_____	52	53	54 56

5. ผลของ.....(ตามข้อหรือ 3) ที่ได้จากการเพาะปลูกด้วยแม่พิมพ์นี้ คุณค่ากับทางลงทุนไหมคะ

.....	_____	_____	_____
คุณค่า	1	1	1	1	1	1	56	57	58 59
ไม่คุ้มค่า	2	2	2	2	2	2	60	61	62 63

6. นี่ คุณคิดว่าคุณจะใช้แม่พิมพ์อะไรบ้างคะ

_____	_____	_____	_____
_____	64	65	66 67
_____	_____	_____	_____
_____	68	69	70 71

7. นี่คุณชื่อ/ได้รับแม่พิมพ์เหล่านี้ จากที่ไหนบ้างคะ

จากของหลวง.....	1 (72)
ชื่อที่ร้านขายแม่พิมพ์/ขายสินค้าเกษตร	2 (73)
ชื่อจากรางสี	3 (74)
จื๊แม่พิมพ์ของตัวเอง	4 (75)
อื่น ๆ(ระบุ)	5

4/15

8. นอกจากแหล่งที่กล่าวมาแล้ว คุณรู้จักแหล่งใดที่คุณจะสามารถซื้อ/ได้รับเมล็ดพันธุ์ อีกบ้างคะ

76 77 78 79

ถามข้อ 9-12 ถ้าตอบมากกว่าหนึ่งแห่ง (ใช้คจากข้อ 7 และ 8) นอกนั้นเข้ามาแทนส่วนต่อไป

9. คิดว่า แหล่งใดดีที่สุดคะ

T.3(1) 2 3

10. เพราะอะไรคะ

4 5 6 7

11. คิดว่า แหล่งใดดีที่สุดคะ

8 9

12. เพราะอะไรคะ

10 11 12 13

III.3 มลพคิด

แสดงการคิด ข

1. งานปีที่แล้ว มลพคิดจากการเพาะปลูกของคุณ นำมาอย่างไรบ้าง

- นำพามาจากมาก 5 (14)
- ค่อนข้างนำพามาจาก 4
- นำพามาจากเล็กน้อย 3
- ไม่ค่อยนำพามาจาก 2
- ไม่นำพามาจากเลย 1

2. คุณประสบปัญหาอะไรบ้างหรือไม่ ในการเพาะปลูกปีที่แล้ว

15 16 17 18

19 20 21 22

3. คุณได้รับความช่วยเหลืออะไรจากทางการบ้าง หรือเปล่าคะ

23 24 25 26

4. ปัจจัยอะไรบ้างคะ ที่จะมีส่วนสำคัญในการเพิ่มผลผลิตของคุณ

27 28 29 30

31 32 33 34

5. เป็นความคิดว่า มลพคิดจากการเพาะปลูกของคุณ จะเป็นอย่างไรบ้าง เมื่อเปรียบเทียบกับปีที่แล้ว

- เพิ่มขึ้น 1 (35)
- คง 2
- พอ ๆ กับ 3

6. เพาะอะไรคะ

36 37 38 39

40 41 42 43

44 45 46 47

417

IV. ปัจจัยอื่น ๆ และบริการ

1. คุณจะได้ค่าประสบการณ์ใด ๆ ที่คุณได้รับ จากเจ้าหน้าที่ของทางราชการได้ไหมคะ

_____	_____	_____	_____	_____
	48	49	50	51
_____	_____	_____	_____	_____
	52	53	54	55

2. คุณจะได้ค่าประสบการณ์ใด ๆ ที่คุณได้รับจาก เจ้าหน้าที่ของทางราชการได้ไหมคะ

_____	_____	_____	_____	_____
	56	57	58	59
_____	_____	_____	_____	_____
	60	61	62	63

3. บริษัทขายสินค้าเกษตร มีอิทธิพลในแง่ใด มีอิทธิพล 1 (64)
บ้างไหมคะ ไม่มีอิทธิพล 2

ถ้า "ไม่มีอิทธิพล" กาย

3ก. บริษัทขายสินค้าเกษตร มีอิทธิพลในแง่ใด อย่างไรบ้างคะ ช่วยกรุณาอธิบายพร้อมเหตุผล

_____	_____	_____	_____	_____
	65	66	67	68
_____	_____	_____	_____	_____
	69	70	71	72

4. คุณคิดว่ามีการคว่ำรับกันมาก มี 1 (73)
งานหน่วยงานของทางการไหมคะ ไม่มี 2

5. เพราะอะไร คุณจึงบอกได้ว่า (คำตอบบนข้อ 4)

_____	_____	_____	_____	_____
	74	75	76	77

T.4(1) 2 3 4 5

V. คุณภาพของชีวิต

ในส่วนนี้ คุณจะมีเรื่องเล่าหรือเหตุการณ์ที่ประทับใจ แต่คุณผู้ชายก็สามารถแสดงความคิดเห็นได้นะละ เรื่องที่จะถาม
ต่อไปนี้ จะเกี่ยวกับชีวิตในหมู่บ้าน ว่ามีการเปลี่ยนแปลงไปอย่างไรบ้าง ในช่วง 5-10 ปีที่ผ่านมา
เปลี่ยนไปทางที่ดีขึ้น หรือแย่ลง

1. กรุณานึกถึงสิ่งต่าง ๆ ที่เกิดขึ้นในช่วง 5-10 ปีที่ผ่านมา คุณคิดว่า สิ่งใดบ้างคะ ที่ทำให้ชีวิตความเป็นอยู่
ในหมู่บ้านดีขึ้น (ในแง่) กรุณาบอกมา 3 เรื่อง ที่มีส่วนทำให้ชีวิตความเป็นอยู่ ในหมู่บ้านดีขึ้น

1. _____ 6 7
2. _____ 8 9
3. _____ 10 11

แล้วทางด้านคุณ (ผู้ชาย) ละคะ คุณเห็นด้วยหรือไม่ว่า 3 เรื่องที่คุณ (ผู้หญิง) ตอบมาจะ
ทำไม่เห็นด้วย, คุณคิดว่า 3 เรื่องนั้นควรจะเป็นเรื่องใดบ้างคะ

1. _____ 12 13
2. _____ 14 15
3. _____ 16 17

2. พี่ ถ้าพูดถึงบ้านหนึ่ง คือในช่วง 5-10 ปีที่ผ่านมา คุณคิดว่ามีสิ่งใดบ้างคะ ที่ทำให้ชีวิตความเป็นอยู่
ในหมู่บ้าน แย่ลงกว่าที่เคยเป็นมา (ในแง่) มีอีกไหมคะ (บันทึก 3 เรื่อง)

1. _____ 18 19
2. _____ 20 21
3. _____ 22 23

แล้วทางด้านคุณ (ผู้ชาย) ละคะ คุณเห็นด้วยหรือไม่ว่า 3 เรื่องที่คุณ (ผู้หญิง)
ตอบมาจะ ทำไม่เห็นด้วย, คุณคิดว่า 3 เรื่องนั้นควรจะเป็นเรื่องใดบ้างคะ

1. _____ 24 25
2. _____ 26 27
3. _____ 28 29

แสดงการ์ด ค

3. พุทธิเรื่อง อาหาร คุณคิดว่าปัจจุบันนี้ คนในหมู่บ้านมีการบริโภคอาหารดีขึ้นหรือไม่ในช่วง 5-10 ปีที่ผ่านมา

- ดีกว่าเดิมมาก 5 (30)
- ค่อนข้างดีกว่าเดิม 4
- ดีกว่าเดิมเล็กน้อย 3
- พอ ๆ กัน 2
- ไม่ดีขึ้นเหมือนเดิม 1

คำตอบ 1 คัด 1 กาม

3ก. เพราะอะไร คุณจึงบอกว่า การบริโภคอาหารไม่ดีขึ้นเหมือนเดิม ดังนี้

- มีเงินไม่พอซื้ออาหาร 1 (31)
- ประเภทของอาหารมีน้อยลง/พืชผลที่ปลูกในหมู่บ้านมีน้อยลง .. 2 (32)
- ปริมาณอาหารมีน้อยลง 3 (33)
- คนในหมู่บ้านเพิ่มชนกว่านส่งออมาก 4 (34)
- สภาพการเพาะปลูกมีน้อยลง 5 (35)
- อื่น ๆ (ระบุ) 6 (36)

คำตอบ 1 คัด 5.4.3 หรือ 2 กาม

3ข. เพราะอะไร คุณจึงบอกว่า การบริโภคอาหาร (คำตอบบนข้อ 3) ดังนี้

- มีอาหารเพิ่มขึ้น/ปลูกพืชผลมากขึ้นในหมู่บ้าน 1 (37)
- มีรายได้เพิ่มขึ้นจากการปลูกพืชผล/มีเงินมากขึ้น 2 (38)
- มีความรู้เรื่องอาหารเพิ่มขึ้น 3 (39)
- คนในหมู่บ้าน/เด็ก มีน้อยลง 4 (40)
- ได้รับความช่วยเหลือจากราชการ 5 (41)
- ได้รับความช่วยเหลือจากแหล่งอื่น (ระบุ) 6 (42)
- อื่น ๆ (ระบุ) 7 (43)

แสดงการ์ด ค

4. เกี่ยวกับเรื่องสุขภาพของคนในหมู่บ้าน ในปัจจุบันนี้ ไม่ว่าจะเป็นผู้ใหญ่หรือเด็ก คุณคิดว่ามีการเปลี่ยนแปลงในทางที่ดีขึ้นหรือไม่ในช่วง 5-10 ปีที่ผ่านมา

- ดีกว่าเดิมมาก 5 (44)
- ค่อนข้างดีกว่าเดิม 4
- ดีกว่าเดิมเล็กน้อย 3
- พอ ๆ กัน 2
- ไม่ดีขึ้นเหมือนเดิม 1

คำตอบ 1 คัด 1 กาม

4ก. เพราะอะไร คุณจึงบอกว่า สุขภาพของคนในหมู่บ้านไม่ดีขึ้นเหมือนเดิม ดังนี้

- การบริโภคอาหารไม่ตรง 1 (45)
- การสูบบุหรี่/สูดดมควันมีน้อยลง 2 (46)
- มีแหล่งน้ำเสีย 3 (47)
- การเจ็บป่วยบ่อยขึ้นและขาดการรักษา 4 (48)
- การเจ็บป่วยอย่างรุนแรงหรือตาย 5 (49)
- โรงรพขาดหรือมีอุปกรณ์น้อย มีคนไข้มากเกินไป 6 (50)
- อื่น ๆ (ระบุ) 7 (51)

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ภาคผนวก 1 คัด 5.4.3 หรือ 2 กาม

48. เพราะอะไร คุณจึงบอกว่า สุขภาพของคนในบ้าน (คำตอบเป็นข้อ 4) คือ
- มีคนขี้หนาวในครอบครัวนี้ 1 (52)
 - การเดินทางไปโรงพยาบาลสะดวก 2 (53)
 - มีแพทย์ และพยาบาลประจำบ้าน 3 (54)
 - มีหน่วยเคลื่อนที่เกี่ยวกับสุขภาพ 4 (55)
 - การสาธารณสุข/สาธารณสุขในบ้านดีขึ้น 5 (56)
 - มียาจำหน่ายภายในบ้าน 6 (57)
 - อื่น ๆ (ระบุ) 7 (58)

แสดงการวัด ค

5. พูดถึงสุขภาพ และการบริโภคอาหารของเด็ก ๆ ในหมู่บ้าน ปัจจุบันนี้ เปรียบเทียบกับเมื่อ 5-10 ปีที่ผ่านมา คุณคิดว่าเด็ก ๆ ในปัจจุบันนี้ มีสุขภาพดีขึ้นกว่าเดิมหรือไม่ อย่างไรคะ
- ดีขึ้นกว่าเดิมมาก 5 (59)
 - ค่อนข้างดีกว่าเดิม 4
 - ดีกว่าเดิมเล็กน้อย 3
 - พอ ๆ กัน 2
 - ไม่ดีขึ้นเลย 1
6. มีปัญหาด้านสุขภาพที่เกิดขึ้น เนื่องจากการทำงานที่ยุ่งยาก จนการทำงาน บ้างหรือเปล่าคะ
- มี 1 (60)
 - ไม่มี 2

ถ้า "มี" กาม

- 6a. ปัญหาที่เกิดขึ้น เป็นปัญหาประเภทไหนคะ

_____ 61 62 63 64

_____ 65 66 67 68

7. พูดถึง การสาธารณสุขในภาค ปัจจุบันนี้ เปรียบเทียบกับเมื่อ 5-10 ปีที่ผ่านมา ปัจจุบันนี้มีอะไรที่ดีขึ้นบ้างคะ (อ่านจากหน้า)
- โรงน้ำ 1 (69)
 - แหล่งน้ำ ดื่มน้ำ 2 (70)
 - ถนนในหมู่บ้านดีขึ้น 3 (71)
8. งานของการเป็นเจ้าของทรัพย์สิน คุณคิดว่าคนในบ้านมีฐานะดีขึ้น หรือไม่คะ
- มีฐานะดีขึ้น 1 (72)
 - ฐานะไม่ดีขึ้น 2

8ก. ทักษะการคิดคำนวณที่บ้าน เป็นเจ้าของกันมากขึ้นในปัจจุบันนี้ เมื่อเปรียบเทียบกับเมื่อ 5-10 ปีที่ผ่านมา คิดอย่างไรบ้างคะ	รถยนต์	1 (73)
	รถจักรยานเด็ก/จักรยาน	2 (74)
	รถมอเตอร์ไซด์	3 (75)
	รถจักรยาน	4 (76)
	โทรทัศน์	5 (77)
<hr/>		
	วิทยุ	6 (78)
	ดีวีดี	7 (79)
	จักรเย็บผ้า	8 (80)
	อื่น ๆ(ระบุ)	9

9. คุณคิดว่า ปัจจุบันนี้คนในบ้านชอบทราบเรื่องราว/เหตุการณ์ที่เกิดขึ้นนอกหมู่บ้าน มากกว่าเมื่อ 5-10 ปีที่ผ่านมา หรือไม่คะ	T.5(1)	
	ทราบเรื่องราว/เหตุการณ์มากขึ้น	1 (2)
	ไม่ได้ทราบเรื่องราว/เหตุการณ์มากขึ้น	2

10. งานด้านการเงินและ คุณรู้สึกว่างานปัจจุบันนี้ คุณมีเงินที่จะใช้จ่ายชดเชยมากขึ้นกว่าเมื่อ 5-10 ปีที่ผ่านมา หรือไม่คะ		
	มีเงินมากขึ้น	1 (3)
	ไม่มีเงินมากขึ้น	2

11. เมื่อพิจารณาถึงทุกอย่างที่เราได้คุยกันไปแล้ว คุณคิดว่า คุณจะเปลี่ยนคำตอบที่คุณได้ตอบบน 2 ข้อแรกของส่วนนี้ไหมคะ (อ่านคำถามข้อ 1,2 ซ้ำ ถ้าจำเป็น) เปลี่ยนเป็นอะไรคะ (บันทึก)
สิ่งที่ทำให้ชีวิตเปลี่ยนมาจากงานทางที่ผิด

1. _____	4	5
2. _____	6	7
3. _____	8	9

สิ่งที่ทำให้ชีวิตเปลี่ยนมาจากงานทางที่ถูกต้อง

1. _____	10	11
2. _____	12	13
3. _____	14	15

12. คู่มือโยธาในโครงการเหล่านี้มีดังนี้

โครงการปรับปรุงแหล่งน้ำเลี้ยงสัตว์.....	1 (16-17)
โครงการพัฒนาพื้นที่ทุ่งกุลาร้องไห้.....	2
โครงการพัฒนาแหล่งน้ำ.....	3
โครงการพัฒนาการเลี้ยงปลา.....	4
โครงการป้องกันน้ำท่วมและการชลประทาน.....	5
<hr/>	
โครงการสาธิตและทดลอง การจัดการน้ำ	
ในเขตชลประทาน.....	6
โครงการพัฒนาในครัวเรือน.....	7
โครงการจัดตั้งศูนย์ส่งเสริมการเกษตร.....	8
โครงการศูนย์วิจัย และชั้นสุตราวิจัย.....	9
โครงการชลประทาน.....	0
<hr/>	
โครงการจัดหาแหล่งน้ำ.....	1
โครงการพัฒนาเขื่อนอุบลรัตน์.....	2
โครงการพัฒนาเขตชลประทาน.....	3
โครงการพัฒนาพื้นที่ในเขตชลประทาน.....	4
โครงการส่งเสริมการเกษตรแห่งชาติ.....	5
<hr/>	
ศูนย์ส่งเสริมและฝึกอบรมอุตสาหกรรมต่อเนื่อง.....	6
โครงการศูนย์วิจัย และฝึกอบรม.....	7
โครงการจัดตั้งสถาบันกัญชาที่มีโรงงาน.....	8
โครงการจัดตั้งศูนย์ผลิตวัคซีนป้องกันโรคปาก และเท้าเปื่อย.....	9
โครงการจัดตั้งเครื่องสูบน้ำ.....	0
<hr/>	
โครงการปรับปรุงแหล่งน้ำ.....	1
โครงการพัฒนาแหล่งน้ำขนาดเล็ก.....	2
โครงการป้องกันน้ำท่วม และการชลประทาน.....	3
โครงการพัฒนาในครัวเรือน.....	4
โครงการพัฒนาสระเลี้ยงปลา ในหมู่บ้าน.....	5
<hr/>	
โครงการพัฒนาการชลประทานขนาดเล็ก.....	6
โครงการพัฒนาเกษตรกรรมโดยอาศัยน้ำฝน.....	7
โครงการพัฒนาชนบทแบบผสมผสาน.....	8
โครงการปรับปรุงเมล็ดพันธุ์พืช.....	9
โครงการปรับปรุงระบบการจัดการน้ำ.....	0

ใบขอ-ค่าตัว

ก่อนอื่น ตีพิมพ์ขอถามคำถามเกี่ยวกับตัวคุณเองสักเล็กน้อยนะ

1. ขอทราบอายุของคุณน้อยนะ

ชาย _____ 1 (18)

หญิง _____ 2 (19)

2. คุณจบการศึกษาชั้นสุดท้าย ระดับใด

	ชาย	หญิง
อ่านเขียนไม่ได้	1 (20)	1 (21)
ประถม (ไม่จบ).....	2	2
ประถม (จบ).....	3	3
มัธยม (ไม่จบ).....	4	4
มัธยม (จบ).....	5	5
อาชีวศึกษา (เกษตร) ชั้นต้น.....	6	6
อาชีวศึกษา (อื่น ๆ) ชั้นต้น.....	7	7
สูงกว่านั้น.....	8	8

3. ครอบครัวของคุณอยู่บ้านนี้มานานแค่ไหนแล้ว / กี่ปี

ตั้งแต่เกิด..... 1 (22)

ระบุ _____
(23-24)

4. อาชีพหลักของครอบครัวคุณคืออะไร

ชาวนา..... 1 (25)

อื่น ๆ (ระบุ) _____ 2

5. ที่ไหนที่คุณเคยไปเป็นส่วนใหญ่คืออะไร

ข้าวเหนียว..... 1 (26)

พืชผลชนิดต่าง ๆ ที่ให้ผลผลิตสูง..... 2 (27)

พืชผลในเมืองชนิดต่าง ๆ..... 3 (28)

มีสวนป่า..... 4 (29)

อื่น ๆ (ระบุ) _____
(30-33)

6. คุณจะสามารถหาได้ไหมว่า รายได้ต่อปีจากการทำมาหากินของคุณ ประมาณเท่าไร และรายได้
อย่างอื่นแต่ละ ประมาณไว้เท่าไร

รายได้จากการทำมา/ปี _____
(34-39)

รายได้อื่น ๆ /ปี _____
(40-45)

รวมรายได้ทั้งหมด/ปี _____
(46-51)

7. ครอบครัวคุณมีสมาชิกทั้งหมดกี่คนคะ รวมทั้งตัวคุณเอง เป็นผู้หญิง อายุ 15 ปีขึ้นไปกี่คนคะ
เป็นเด็กอายุต่ำกว่า 15 ปี กี่คนคะ

สมาชิกในครอบครัวทั้งหมด _____ (52-53)

ผู้หญิงอายุ 15 ปีขึ้นไป _____ (54-55)

เด็กอายุต่ำกว่า 15 ปี _____ (56-57)

8. บ้านคุณมีไฟฟ้าใช้ไหมคะ

มีไฟฟ้าจากทางการฯ..... 1 (58)

มีไฟฟ้าใช้เอง..... 2

ไม่มีไฟฟ้า 3

9. แหล่งน้ำของครอบครัวคุณ ได้มาจากไหนคะ

บ่อน้ำ/น้ำบาดาล..... 1 (59)

ลำธาร/คลอง 2 (60)

น้ำฝน 3 (61)

อื่น ๆ(ระบุ) _____ 4 (62)

10. ดินมีอะไรบ้างของบางอย่าง คุณกรุณาบอกหน่อยนะคะว่า คุณมีสิ่งของเหล่านี้ในครอบครัวคุณหรือเปล่าคะ

รถยนต์ 1 (63)

รถบรรทุกเล็ก/ปิคอัพ..... 2 (64)

รถมอเตอร์ไซด์..... 3 (65)

รถจักรยาน 4 (66)

เครื่องยนต์(จักรยานการเกษตร)..... 5 (67)

โทรทัศน์ 6 (68)

วิทยุ 1 (69)

พัดลม 2 (70)

จักรเย็บผ้า..... 3 (71)

ตู้เย็น..... 4 (72)

หม้อหุงข้าว 5 (73)

สายเหล็ก 6 (74)

อุปกรณ์การเกษตรอื่น ๆ(ระบุ)

_____ 7 (75)

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