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AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523

February 16, 1979

PROJECT PAPER

THAILAND - RURAL OFF-FARM EMPLOYMENT ASSESSMENT

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UNITED STATES GOVERNMENT

Memorandum

TO : DISTRIBUTION

DATE: April 23, 1979

FROM : ASIA/PD/EA, Monica K. Sinding *MKS in deep*

SUBJECT: THAILAND: Rural Off-Farm Employment Assessment (493-0306)

As most of you know the PP for the subject project was approved by the USAID Director in February, and a Congressional Notification was subsequently sent forward. Following expiration of the CN, \$500,000 for the project was allotted and obligated during the second quarter. Project implementation is now underway.

Attached please find one or more copies of the PP, as approved, for your files.

Attachment: PP

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THAILAND
RURAL OFF-FARM EMPLOYMENT ASSESSMENT PROJECT

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ABBREVIATIONS, TERMS, AND EQUIVALENTS

Abbreviations - Acronyms

ADB	Asian Development Bank
CDD	Community Development Department
DIP	Department of Industrial Promotion
DS/RAD	Development Support Bureau's Office of Rural Development and Development Administration (AID/W)
DTEC	Department of Technical and Economic Cooperation
IBRD	International Bank for Reconstruction and Development (commonly referred to as the World Bank)
LP	Linear Programming
MSU	Michigan State University
NESDB	National Economic and Social Development Board
NIDA	National Institute of Development Administration
OSU	Ohio State University
RTG	Royal Thai Government
SIFO	Small Industries Finance Office
TMDPC	Thailand Management Development and Productivity Center
USAID	United States Agency for International Development

Thai Geographic Entities

Changwat	Province. 72 throughout the country
Amphoe	District. Sub-division of a Province
Tambon	Sub-division of a District
Village	Sub-division of a Tambon

Currency Equivalents

U.S. \$1.00 = Baht (฿) 20.00

Baht 1.00 = U.S. \$ 0.05

Area Equivalents

1 rai = 0.16 hectare (40 x 40 meters)
0.40 acre

1 hectare (ha.) = 6.25 rai
2.47 acres

1 acre = 2.5 rai

PART I. PROJECT SUMMARY & RECOMMENDATIONS

A. Face Sheet Data

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT PAPER FACESHEET		1. TRANSACTION CODE A A = ADD C = CHANGE D = DELETE	PP
3. COUNTRY/ENTITY Thailand		2. DOCUMENT CODE 3	
5. PROJECT NUMBER (7 digits) [493-0306]		4. DOCUMENT REVISION NUMBER <input type="checkbox"/>	
6. BUREAU/OFFICE A. SYMBOL ASIA B. CODE [04]		7. PROJECT TITLE (Maximum 40 characters) Rural Off-Farm Employment Assessment	
8. ESTIMATED FY OF PROJECT COMPLETION FY [81]		9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY [79] B. QUARTER [2] C. FINAL FY [79] (Enter 1, 2, 3, or 4)	

10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) - **820.00**

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL	75	220	295	130	370	500
(GRANT)	(75)	(220)	(295)	(130)	(370)	(500)
(LOAN)	()	()	()	()	()	()
OTHER 1.						
U.S. 2.						
HOST COUNTRY		85	85		170	170
OTHER DONOR(S)						
TOTALS	75	305	380	130	540	670

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 79		H. 2ND FY		K. 3RD FY	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	261B	110		500					
(2)									
(3)									
(4)									
TOTALS				500					

A. APPROPRIATION	N. 4TH FY		O. 5TH FY		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULED
	P. GRANT	Q. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1) FN					500		MM YY 07 810
(2)							
(3)							
(4)							
TOTALS						500	

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

1 1 = NO
2 = YES

14. ORIGINATING OFFICE CLEARANCE		15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION	
SIGNATURE	<i>[Signature]</i>	DATE SIGNED	
TITLE	Donald D. Cohen Director, USAID/Thailand	MM DD YY 02 16 79	

B. Recommendations

It is recommended that grant funds be approved for the Rural Off-Farm Employment Project as follows:

Grant to Kasetsart University channeled through DTEC to manage and implement surveys and data collection.	\$370,000
Grant funds to provide consultants with varying expertise, for approximately 24 person months.	\$130,000
Total New AID Obligation	<u>\$500,000</u> =====

C. Project Summary

Thailand faces complex problems of rural poverty. Rural incomes are extremely low in absolute terms and low relative to urban incomes. Inequality between and within regions in many cases is substantial. Rural incomes in the North and Northeast are much lower than incomes in the South and Central Regions. Furthermore, within individual regions the gap between rich and poor households has widened as the poor, particularly the landless, have been only marginal participants in the development process.

The Royal Thai Government (RTG) is addressing these issues in several ways. Attempts are being made to increase agricultural incomes through changes in technology and introduction of new crops, intensification of cropping through irrigation, improvements in the supply of financial and marketing services, and investments in social infrastructure. Recently the government has also shown substantial interest in policies to promote off-farm employment as a means of raising income levels of rural households.

Information on the current nature, extent and composition of the rural non-farm enterprise sector, how that sector interacts with the farm sector, and factors which constrain expansion of particular lines of activity in Thailand is at present lacking. This is a major gap in the existing information base. This project will provide these types of data and the analytical background needed to identify and develop appropriate projects and programs for stimulating the rural non-farm enterprise sector, enhancing the contribution of that

sector to overall rural development employment, and the reduction of rural poverty. In addition, it will increase the existing capacity of Thai government organizations and local universities to carry out research and analysis of data on questions of appropriate rural development strategies.

The project will involve data collection and analysis over a two year period beginning approximately May 1979. Later start-up will result in a two and one-half to three year activity. Kasetsart University will assume major responsibility for managing and implementing the data collection component and supplying staff resources through cooperation with local universities in project areas. Ohio State University and Michigan State University will provide research advisors and consultants through their AID cooperative agreements. Additional U.S. consultants will be funded through this project.

PART II. PROJECT BACKGROUND AND DETAILED DESCRIPTION

A. Background

Thailand's real per capita income growth has increased at about 4.0% annually over the past two decades despite a population growth rate exceeding 3.0% from the end of World War II until about 1970. Consequently, real per capita income is about double the level of two decades ago. Indications are that the birth rate is now declining rapidly and has declined by more than one-third since the mid-1950's. Social services, particularly education and health care services, have been increasingly extended into the rural areas. Thailand's transportation system has expanded remarkably since the beginning of the Second Five-Year Plan (1967-1971). Likewise, irrigation and electric power generation have grown rapidly since completion of Thailand's first major multipurpose dam in 1963. An unprecedented expansion of the formal agricultural credit system has occurred in recent years and will reach approximately \$1 billion in 1979 -- a many-fold increase over the levels of the early 1970's. These factors, along with the considerable expansion of the research and extension capability in agriculture, have led to an increased expansion in agricultural production both for domestic consumption and for export and to a rapid expansion in the demand for purchased farm inputs (farm machinery, fertilizer, seeds, pesticides, feeds for livestock, etc.) and processing facilities (fruit and vegetable canning, corn, cassava, sugar and vegetable oil processing, textile production, livestock slaughter, etc.).

Unfortunately, many of these activities (road, rail and dam building, electric power generation, research and extension, farm machinery production, fertilizer and pesticides formulation, etc.) require substantial components of capital (much of it imported) and skilled heavy machinery operators and engineers. Even textile production, generally considered a labor intensive industry, may have absorbed less unskilled labor than is generally thought (particularly in view of the recent trends toward ready-made, mass-produced clothing) when the labor displaced in traditional weaving, sewing and spinning is considered. Likewise, the expansion of education to date has primarily been limited to children under 14 years of age (about 80% of the school population). Most of those above 14 years of age are in Bangkok and other urban areas.

Future increases in school population (planned to increase at 7% or 600,000 students per year in the Fourth Five-Year Plan, 1976-1981) will reduce the rural labor force since almost all of this addition will be children over 14 years old in the rural areas. Nevertheless, the large number of births, exceeding 1.2 million since 1960, means a substantial potential increase in the rural labor force over the next decade even with successful reduction in population growth. The rapid increase of capital for use in agriculture may very well affect the demand for labor in this sector in the future.

It seems possible, therefore, that the very remarkable progress which Thailand has made in economic development and in providing physical and social infrastructure, even in rural areas, may have absorbed much less unskilled labor than was originally expected. Furthermore, the impact to date may have increased income maldistribution.

Available evidence suggests that small peasant households are highly dependent upon off-farm activities for employment and income. A recent IBRD publication suggests that non-farm activities in rural areas are a source of primary employment for approximately a quarter of the rural labor force (Anderson, 1978). If one includes those part-time farmers who engage in non-farm activities as a secondary occupation, the percentage increases to 40 or 50%. In Thailand, a recent village study conducted in the northern part of the country revealed that somewhat over 50% of the rural households' time was devoted to non-farm activities (Rapepan, 1978). Moreover, another study undertaken in the same area in 1972 indicates that non-farm activities contributed from 43-76% of the income for small and landless farmers under conditions of "less-intensive" cropping and as much as 42% under intense cropping (Thodey and Seetisan, 1975).

The development of non-farm enterprises, including those engaged in small-scale public works activities, in rural areas and market towns appears to be one of the more promising approaches for stimulating rural employment. There is a growing body of data which suggests that such enterprises are generally labor intensive and hence provide substantial employment, thus reducing the pressure to migrate to already crowded urban areas. Establishing manufacturing firms in geographically dispersed rural areas allows small firms to

serve the needs of local markets. Such firms are observed to generate economic returns to capital and labor which are comparable to returns in alternative uses. Non-farm enterprises produce goods for local household consumption, goods for export such as local handicrafts, provide construction services in public works projects, and productive inputs for agricultural production. Thus, expansion of the rural non-farm enterprise sector offers the potential of an economically viable method of providing employment for rural households on a seasonal or permanent basis, supplying consumption needs of the local community, and raising agricultural productivity through provision of inputs.

Promotion of the non-farm rural enterprise sector, however, cannot be undertaken independently of agricultural policies. In Thailand, as elsewhere, a strong agricultural sector is a prerequisite to overall economic development. In addition, agricultural conditions in Thailand are highly varied. Extensive rural poverty in the Northeast, for example, is a result of poor land quality as much as a lack of alternative off-farm opportunities. In the North, however, agricultural productivity is much higher but small holdings limit the amount of farm income that can be generated. In areas of the Central Plain a primary problem is annual flooding which may reduce yields substantially. Consequently, important regional differences in basic agricultural conditions exist. Therefore, great care must be taken in designing programs to promote the rural non-farm enterprise sector, taking close account of regional differences in agricultural conditions, if the expansion of that sector is to be integrated with agricultural growth. In particular, the dynamic linkages between the farm and non-farm sectors may be important.

Part of the appeal of strategies for increasing rural employment through small scale industry development arises from the experiences with alternative industrialization strategies. The industrialization strategies that many countries launched during the 1950's, emphasizing large-scale, capital intensive industries in urban areas generally produced disappointing employment results. Employment generated by these industries failed to keep pace with population growth and, in some cases, even declined in absolute terms) (Liedholm and Chuta, 1976).

Thailand's experience with industrialization has encountered these same types of problems. During the First (1962-1966) and Second (1967-1971) Five-Year Plans, emphasis was placed on investments in economic infrastructure and on the development of import-substitution industries.

The Third Five-Year Plan (1972-1976) aimed at achieving a high growth rate of production both in agriculture and industry while maintaining price stability. It also sought to narrow the income gap between urban and rural dwellers and to improve the distribution of social services. During this period the industrial sector grew faster than the agricultural sector even though the overall growth rate of the GDP was lower than the planned target of 7%. Although some progress was made on income distribution and regional development, it was recognized that much still remained to be done. The 1976 average per capita income in the Central Region was more than twice as much as that in the Northeast while that in Bangkok was seven times greater. Toward the end of the Third Five-Year Plan the growth of the industrial sector was severely affected by the world-wide economic recession, the oil crisis, and regional and domestic political events. The sector was unable to absorb as much of the growing labor force as had been expected by the RTG. This was also at a time when many workers were being laid off as a result of the withdrawal of U.S. military forces.

At the formulation stage of the Fourth Five-Year Plan (1977-1981) the RTG was faced with the following problems:

- A slowdown in industrial and agribusiness growth.
- An increased level of unemployment and under-employment, particularly in rural areas.
- A greater concentration of industrial activities in the Bangkok Metropolitan Area with consequent urban migration problems.
- Low income in rural areas.
- Continued uneven income distribution between the urban and rural areas.
- Continued dependence on exports of unprocessed primary commodities.

In recognition of these problems, the RTG Fourth Five-Year Plan places strong emphasis on the establishment of small-scale, labor intensive, rural industry to decrease income disparities, promote employment, and decrease migration to urban areas. The following items, taken from the Plan, are illustrative:

"Rural development will be fully supported by high priority programs such as comprehensive agricultural development at the farm level and the development of cottage and rural industries. To alleviate the unemployment problem in general and seasonal unemployment and rural underemployment in particular, rural projects must be as labor intensive as possible. To slow down rural-urban migration, more rapid implementation of rural projects will be necessary....incentives must be given to cottage industries, the processing of agricultural commodities and industries that manufacture goods to meet the needs of rural farmers."

"The Government will encourage the development of small-scale industries which are important for generating employment."

"In order to achieve this growth rate, output expansion in the import substitution industries, agro-industries, and labor-intensive small scale industries in particular have to be accelerated."

"....small scale import substitution industries which utilize indigenous raw materials and labor will be expanded to meet domestic demand."

"The Investment Promotion Act will be revised to give more incentives to investment in labor intensive industries. More information on the possibilities and viability of adopting labor intensive techniques of production will be provided to investors. Small-scale, labor intensive industries will receive additional privileges so that they can compete more effectively vis-a-vis, large-scale industries."

Measures implemented to achieve these objectives include:

- Provision of credit facilities for small industry through the establishment of the Small Industries Finance Office (SIFO).
- Provision of technical extension and advisory service for small industry through the Industrial Service Institute (ISI).
- Provision of management training and advisory service for small industry through the Thailand Management Development and Productivity Center (TMDPC).
- Creation of a marketing center for products of small industry, particularly handicrafts, with the establishment of a retail center in Bangkok.

It is clear that the RTG is deeply interested in the problems and prospects for development of the rural non-farm enterprise sector. This view was reflected in the open reception accorded members of the Project Design Team in interviews with RTG officials.

AID is also becoming increasingly interested in the role of non-farm enterprises in supporting strategies of rural development and providing assistance to the poorest rural households, particularly the landless, who to date have not been major participants in the recent economic growth. AID projects to stimulate rural non-farm enterprises are currently being planned in several other Asian countries, including Indonesia, the Philippines, and Bangladesh. In addition, rural enterprise projects are underway or being planned in a number of African, Latin American and Near East countries with AID support.

International donor agencies such as the International Bank for Reconstruction and Development (IBRD) and the Asian Development Bank (ADB), are also paying increasing attention to the role of rural non-farm enterprises in improving the income opportunities of rural producers. The IBRD has particular interest and has expressed considerable concern about the welfare of the rural poor. Among other programs geared toward improving the economic well-being of the rural poor, the promotion of rural off-farm employment is currently being emphasized. Support of non-farm activities in future

lending of the IBRD will be extended through an increased number of special non-farm components in "new style" rural development projects, and provisions, in the Bank's urban lending, for the development of small-scale enterprises in rural towns and small urban centers. The ADB, another major donor agency, has, in recent years, given particular attention to the promotion of off-farm employment in its member countries including Thailand. It is therefore expected that more direct lending to rural small scale industries will be considerably increased.

As great as the potential may be, design of appropriate programs and projects for stimulating the rural off-farm sector depends critically on a detailed understanding of the nature, extent and composition of the sector, the relationships with the farm sector, the potential pattern of demand for the products, economic viability, and the nature of the factors which constrain indigenous expansion. In Thailand, as in most other developing countries, studies of these issues are extremely scarce.

The various industrial censuses in Thailand, for example, only include those establishments employing 10 or more workers and thus omit the smallest sized firms. (See National Statistical Office, 1971, or Sanguangniang, S. et al, 1978). There have been a few rural employment surveys (National Economic Development Board 1971, 1972, and Fuhs and Vingerhoets, 1972), but these have not included any information on the nature, extent and composition of the non-farm small scale enterprises. Finally, the farm and rural household surveys that have been undertaken have also failed to provide details on rural non-farm activities. (See Rappan, 1978, and Thodey and Seetisam, 1975). Consequently, there is a basic need for detailed surveys of rural non-farm enterprises in Thailand if effective programs and policies in this area are to be identified, designed and implemented.

B. Detailed Description

1. Sector Goal

This project will help to increase off-farm employment in the rural, poorer areas of Thailand. It will contribute to the development of rural non-farm enterprises to provide increased income opportunities for rural households, particularly those with inadequate resources to support themselves entirely by agricultural pursuits.

2. Project Purpose

The purpose of this project is to identify and develop appropriate projects and policies that could assist in the expansion of non-farm employment and income opportunities in the rural areas and market towns of Thailand. The conditions indicating that the project purpose has been achieved will be policy and project formulations by the RTG, USAID, and other donor agencies that incorporate or are derived from the data and analyses provided through this project.

3. Outputs

The following outputs will be achieved by end of project:

- Studies and analyses will be completed that will enable the RTG, USAID, and other donor agencies to design, implement, and evaluate effective policies and projects that promote the development of rural small-scale industries.
- Two conferences on rural industry development will be held to discuss general approaches to rural employment project design. Three or four workshops will be held to bring together project researchers. Through these conferences and workshops, coordination among RTG organizations, USAID, and other donors will be increased.

4. Inputs

a. Royal Thai Government

RTG inputs to the project will include representations from the National Economic and Social Development Board (NESDB), the Department of Technical and Economic Cooperation (DTEC), the Department of Industrial Promotion (DIP), the Community Development Department (CDD), and other concerned agencies and organizations that will participate on a Project Advisory Committee. It is expected that RTG agencies will also provide data and information on policies and programs they are pursuing that relate to the development of rural non-farm activities.

Kasetsart University will provide staff resources to assume the major responsibilities for managing and implementing the surveys and data collection to be carried out. It is expected that other Thai universities, including Khon Kaen and Chiang Mai, will similarly provide personnel for carrying out parts of the planned surveys and studies. Kasetsart will also be providing office supplies, transportation and communications, typists, etc. All three universities will provide office space and utilities. Total host country contribution in dollar equivalent is about \$170,000 which exceeds the requirement of FAA Section 110(a).

b. A.I.D.

In addition to the grant funds, USAID inputs will include project monitoring and evaluation.

USAID will administer the funds programmed for project consultants and will prepare scopes of work, necessary documentation, etc. to obtain the required services. Acting as an agent for USAID, the Development Support Bureau's Office of Rural Development and Development Administration (DS/RAD) in AID/Washington will undertake the identification of persons, not funded under its existing projects, to provide these services. All actions of DS/RAD will be in collaboration with and acceptable to USAID and the RTG. Contracting for the project consultants may be undertaken either by USAID or by AID/Washington acting on behalf of USAID.

Under funding provided by AID centrally funded projects through DS/RAD, Ohio State University (OSU) and Michigan State University (MSU) will contribute one full-time research advisor and short-term technical assistance from staff members.

5. Primary Project Components

Detailed studies and analyses to be carried out under this project will include Rural Non-Farm Enterprises, Farm Level Surveys and Rural Financial Markets. These are discussed in more detail below:

a. Rural Non-Farm Enterprises

Surveys and studies will be made, in selected regions, to assess the current extent, composition, and importance of the off-farm sector, the operational characteristics of non-farm enterprises, constraints on their development and approaches for stimulating their growth and expansion. The social and political environment of rural non-farm enterprises, including the effects of government policies and institutions on the operations and growth of rural industries will also be examined.

The surveys of non-farm enterprises will include firms located in towns and adjacent rural areas at the Changwat (Province), Amphoe (District), Tambon (Sub-district), and village levels.

(1) Objectives

As pointed out in the background section (Part II.A.), detailed information on the kinds of off-farm activities engaged in by rural households in Thailand is limited in scope and fragmentary in nature. Also, systematic studies of particular lines of activity have not been conducted. Thus, although the importance of the non-farm enterprise sector to the Thai rural economy in terms of employment and income generation is quite clear, little basis exists for developing consistent policies and programs for promoting such activities. The primary objectives of this component of the project are to:

- Determine the nature, extent, and composition of the non-farm enterprise sector in selected areas of rural Thailand.
- Identify types of non-farm enterprises which are most labor intensive, economically viable, and offer the greatest growth potential.
- Identify particular constraints on the indigenous expansion of those enterprises as a means of selecting a focal point for promotion policy.

- Assess the impact of existing and potential Thai industrial policies and programs on rural versus urban and large versus small-scale enterprise development.

(2) Issues to be Studied

An issue of importance for policy and project design is economic viability. At present, the primary focus on off-farm enterprises is their role in providing supplementary sources of employment and income for farm households. There is a danger, however, that the basic necessity, i.e., that the enterprises be economically viable on their own, will not be paid proper attention. Promotion policies which create short-run viability by implicit (or explicit) subsidies of various types may lead to a long-run dependence on government support. A more fruitful approach, and the issue of concern here, is to identify the extent to which particular factors constrain the development of particular lines of activity. For example, if large initial capital investment is a barrier to entry, then increased availability of commercial credit may be warranted.

Other potential constraints include slow expansion of demand, absence of adequate marketing channels, insufficient working capital, and weaknesses in production technologies. Several sources of demand exist, depending on the nature of the products produced, for the output of the non-farm enterprise sector. Simple goods for household consumption may be consumed locally or sent to urban centers, export goods such as handicrafts depend on external markets, and farm inputs such as mechanized implements may be used by local farmers. A basic requirement for the non-farm enterprise sector to expand is that demand for the products produced also increases at an acceptable rate.

Even if the demand for a particular product is expanding rapidly, imperfections in the marketing system may isolate the producer from the potential benefits and reduce his incentive to increase production. If asked directly, entrepreneurs will almost always say that lack of credit is a problem. However, the demand for working capital in this context is determined by inventory control, input purchase patterns, seasonality in production, and other aspects

of business practices. In some cases excess demand for credit may be a symptom of other problems. For example, uncertain input supplies due to market imperfections may result in excessive working capital requirements as firms buy inputs in advance of need. In such a case, the focal point of policy should be the input market and not the availability of credit.

Another potential constraint is inefficiency in production technologies or lags in adoption of improved techniques. It must be determined if there are particular parts of production processes which can be modified or improved to increase productivity, upgrade quality and firm profitability. Innovations in production processes may be the key to expanding non-farm employment opportunities in the long run.

There is another aspect of the non-farm enterprise sector in Thailand which must be understood if appropriate projects are to be developed. Preliminary discussions with several entrepreneurs suggest that social and economic ties between firms, individual entrepreneurs who may be involved in several lines of activity, and local government officials are quite important. For example, mechanisms may exist for informal capital transfers or loans between relatives engaged in different business activities. These organizational issues must also be dealt with in the Thai context.

A final potential constraint on the success of particular types of off-farm employment relates to the degree to which the nature of the employment, its skill requirements, working conditions, timing, distance from the farm, availability of transportation, etc. articulate with similar factors that circumscribe the on-farm production system. For this reason, the study of farm systems themselves, including their socio-cultural and organizational aspects, can be expected to lead to the identification of those types of off-farm employment most likely to attract and benefit those who live and work on farms.

Identification of specific constraining factors in particular cases and understanding of the nature of organization and inter-firm interactions will provide a necessary basis for the design of policies and projects to stimulate development of the non-farm enterprise sector.

(3) Research Methodology

A three part research procedure, consisting of the following elements, is envisioned:

(a) Surveys of Non-Farm Enterprises

The survey methodology will be divided into two phases. Phase I will be a complete enumeration of the rural non-farm enterprise sector in the selected areas (See Part II.B.6.). Basic information will be collected on kinds and volume of output, the enterprise labor force, and the extent of mechanization.

Phase II of the survey method is much more complex. On the basis of the complete enumeration, a subset of approximately 300 firms will be selected for a detailed survey for a full year in order to generate flow data on which to base assessments of economic viability. Data on a wide variety of subjects will be collected using modified versions of the questionnaires developed by the MSU in their work in Sierra Leone. The primary objective of the survey is to collect quantitative information on which to base assessments of the economic viability of various industries and sizes of firms, the nature of constraints on their expansion, and sources of and needs for credit.

(b) Case Studies of Particular Activities

The case studies will focus on particular lines of activity with a view toward identifying weaknesses in marketing, business practices, and technological processes. Interviews will be conducted with individual entrepreneurs to supplement the quantitative information collected in the survey work. Qualitative information may play an important role in the final assessment.

(c) Policy Analysis and Project Identification

This element will emphasize analysis of existing and potential policies and programs for encouraging the kinds of activities identified as appropriate in the previous phases. Several steps seem to be involved. First, RTG industrial promotion policies and programs, tax policies,

regulations and licensing procedures, labor laws, monetary policies, and foreign trade policies must be studied with a view toward assessing their impact on the non-farm enterprise sector. Second, existing institutions for program implementation, especially industrial promotion, must be analyzed. In Thailand, a great deal of overlap exists at present; several different government offices appear to have some role in industrial promotion. Third, individual entrepreneurs' perceptions of these programs must be understood, since their perceptions, rather than the actual policies, guide their actions. The procedure for studying these issues will be a careful analysis of existing statutes and selective interviews.

(4) Data Requirements

In addition to the complete enumeration of all non-farm enterprises in the localities selected, the analytical studies require the following information from the detailed surveys:

(a) Price and Quantity Data

Price and quantity data for all productive inputs for individual enterprises over a full year period, disaggregated by source of supply, e.g., raw materials produced locally versus imported, borrowing versus retained profits as sources of working capital, will be needed. Since these are flows, data must be collected at frequent intervals. Of particular importance is the labor input information which must be collected in an extremely detailed form. For example, information is required on family versus hired laborers, age and sex composition, distance of travel to work, place of residence, etc.

(b) Value, Composition and Destination Data

Data on value, composition, and destination of final sales of non-farm enterprise products for the full year period are necessary in order to, in conjunction with the input data, assess economic viability.

(c) Income and Expenditure Data

Farm household income and expenditure data from the farm level surveys with commodities disaggregated by source of supply, are required for calculating demand elasticities.

b. Farm Level Surveys

Farm level surveys will be conducted to explore, among other things, questions of labor supply and allocation, consumption and expenditure patterns, credit demand and credit use. They will stress the inter-sectorial linkages between agriculture and non-farm activities. The surveys will focus on farm households in the marketing areas served by these various levels of market centers in order to provide data on linkages between farm and non-farm activities. The surveys will also identify farm-related constraints and potentiality for off-farm employment that would affect the likelihood of participation in the off-farm activities. It is expected that such constraints and potentialities will be socio-cultural as well as economic.

(1) Objectives

The basis of the rural economy is the farm sector. As noted previously, many farm management studies have been conducted in various areas of Thailand. Most such studies are based on one-time surveys which include indicators of the importance of non-farm activities such as the percent of income derived from, or the amount of household labor devoted to, non-farm activities. The precise nature of these activities, however, is rarely recorded. Thus, it is not possible to characterize the participation of farm household members in non-farm activities with respect to which household members participate, whether the activities are in nearby non-farm enterprises or only involve processing of farm produce for home consumption, whether the existence of non-farm employment opportunities is complementary with the timing and organization of agricultural production or whether agricultural productivity is reduced as a result, etc. The timing and organization of on-farm activities is also socio-culturally influenced, thus socio-cultural aspects will also need to be investigated.

The distributional issue involved is also of importance. In many contexts, in which Thailand appears to be included, there is a clear inverse relationship between farm size and dependence on non-farm income sources.) That is, small farms earn a much larger proportion of their total income from non-farm sources than do large farms. (See R. L. Meyer et. al. and D. L. Chinn). Thus, expansion of non-farm employment opportunities has the potential of reducing inequality in the distribution of income in rural areas.

The primary objectives of this component of the project are to:

- Collect detailed primary data on numerous aspects of farm enterprises.
- Examine the nature of farm sector demand for labor and other inputs to assess the extent of labor under-employment, and determine the labor absorptive capacity of alternative cropping patterns.
- Analyze the relationship between farm size and the importance of non-farm income sources in rural Thailand to determine the potential distributional impacts of non-farm enterprise expansion.

(2) Issues to be Studied

The primary issue to be studied in this component of the project is the impact of expansion of the non-farm enterprise sector on the farm sector. This will help to establish the types of off-farm employment most likely to receive maximum participation as well as determine the probable effects on agricultural productivity if particular kinds of non-farm enterprises are selected for promotion. This issue is particularly relevant to the Thai case because of the importance of agricultural exports, the strategy of crop diversification, and the expanded adoption of multiple cropping. Whether farmers are willing to adopt recommended cropping patterns depends critically on the marginal productivity of labor in agricultural activities vis-a-vis opportunities to earn income in non-farm activities. Thus, the central issue is the interaction of non-farm enterprise promotion schemes with strategies adopted for increasing agricultural diversification and output levels. Are they complementary or competitive? If they are found to be competitive, then the nature of the tradeoff must be analyzed. For example, what is the "cost" of expansion of local manufacturing activities in terms of lost agricultural output? In any case, it would seem that information such as will be provided by this project is a basic prerequisite for intelligent design of consistent strategies for rural development in Thailand.

A second issue is the nature of farm demand for capital, labor, and other inputs throughout the year. For example, to what extent might increased cash income from non-farm activities reduce the need for farm credit by supplementing and smoothing out the farm household income stream during the year? Or, would appropriate farm credit programs increase agricultural productivity and reduce the need for non-farm income sources?

It is unlikely that a progressive rural non-farm enterprise sector can be based primarily on seasonal labor supplies from the farm sector. Thus, increased opportunities for off-farm employment cannot be regarded as primarily complementary with farming activities. The project will attempt to characterize the nature of the relationship between farm and non-farm labor use on a seasonal (or more detailed timing and organizational) basis. Also, issues such as the effect of increased non-farm opportunities on the demand for agricultural credit and farm output will be analyzed.

By looking at several relevant farm size classes in each locality studied, the distributional impacts of increased non-farm employment opportunities can be examined as well. In particular, it should be possible to determine if the inverse relationship between farm size and dependence on non-farm income sources can be explained solely by the need for households with small uneconomic farms to seek alternative income sources or whether other forces are at work as well. The question of whether or not the expansion of the non-farm sector will decrease inequality in rural Thailand will be addressed.

(3) Methodologies

A three phase research procedure, composed of the following elements, is proposed:

(a) Survey of Sample Farm Households in Several Regions of Thailand

The survey will encompass roughly 200 farm households in each of several localities selected for study. Random sampling methods will be used to the extent possible to insure that representative samples are drawn so that the findings can be generalized.

(b) Construction of an Analytical Framework for Studying Seasonal Patterns of Agricultural Output and Input Use

The surveys will be much more intensive than all previous farm surveys conducted in Thailand in terms of the frequency of interviews, the period of data collection, and the detail in the data collected. Since seasonal variation in Thai agriculture is extreme in many regions, data must be collected at monthly (or more frequent) intervals for a year if the analysis is to adequately reflect seasonal variation. The surveys will deal with detailed timing and organizational requirements of on-farm activities to determine what types of labor are available at what times and for what types of activities. The analytical framework will include socio-cultural factors that help to account for the labor timing and organizational patterns found.

(c) Statistical Analysis of Factors Accounting for Household Labor Allocation Between Farm and Non-Farm Activities

Assessing the motivation of farm households in allocating their own labor is, given adequately detailed data, ideally suited to statistical analysis. The results of the analysis should give an indication of the relative importance of economic factors, such as alternative monetary returns, as opposed to non-economic or institutional factors, in the household labor allocation decision. Institutional, socio-cultural factors will be included in the analysis.

(4) Data Requirements

The primary data required from the farm level surveys includes:

(a) Input-Output Relationship Data

Detailed data will be needed on input-output relationships on a monthly basis. This includes inputs by value, quantity, and source as well as crops produced in terms of value and quantity and whether they are consumed on the farms or sold.

(b) Non-Farm Income Source Data

Data on non-farm income sources, wage rates, and hours of labor devoted to particular activities by individual family members on a seasonal basis will be required.

(c) Farm Household Consumption Data

Detailed data on farm household consumption patterns with commodities distinguished by source is essential.

c. Rural Financial Markets

To assess their present performance and potential for servicing rural non-farm enterprises, detailed studies of rural financial markets will be made. The studies will be formulated to take into account past and ongoing research in this area.

(1) Objectives

The central objective of this component is to determine how rural financial institutions and the services they provide affect the performance of farm and non-farm activities. Financial markets also represent a potentially important linkage between farm and non-farm activities through credit allocation and savings mobilization.

Specially, the objectives of this component of the project are to:

- Analyze the sources and uses of funds in farm and non-farm firms.
- Assess the impact of recent increases in formal agricultural credit on agricultural output, input use, demand for informal credit, etc.
- Estimate the impact of changing credit terms and supplies on farms and non-farm firms.

- Identify the incentives and impediments which exist for financial markets to broaden lending and savings services in rural areas.
- Examine the impact of informal credit provided through input and produce marketing firms.

(2) Issues to be Studied

The primary issue to be studied is the role of financial markets in stimulating economic development in rural areas. Some analysts argue that a "supply-leading" approach to financial markets accelerates development, i.e., financial services lead to development. The financial market contribution can come about simply through the supply of credit or through the assistance lenders can provide in identifying investment opportunities for local entrepreneurs. Thus, several countries have adopted aggressive policies to expand financial markets in rural areas. Since 1976, the RTG has attempted to stimulate farm output through quotas designed to increase commercial bank lending to agriculture. Unfortunately, little is known about the effect of this expanded credit supply on Thai agriculture. Even less is known about the financial constraints that may be faced by non-farm firms and the impact that the expanded credit supply may have on them.

It is important to gain knowledge of such impact as it is generally recognized that the functioning and the performance of rural financial markets, in both farm and non-farm sectors, are closely interrelated. For instance, the credit expanded to agriculture might affect employment in the farm sector and, hence, affect the labor supply for non-farm activities. It may also be possible, given the scarcity of funds, that such increase in credit to agriculture may, in effect, decrease the supply of credit to the non-farm firms.

Five types of studies will be conducted under this component. The first will analyze the impact of the recent expansion in agricultural credit. This study will use data collected in the farm survey to address the following issues:

- Who have been the beneficiaries?
- Have small farmers been reached?

- Has regularized credit led to greater output, acceleration of technological change, substitution for informal credit sources, increased consumption, etc.?
- Have non-farm activities benefitted either directly or indirectly?

The second type of study will analyze how future expanded financial services may affect farm and non-farm firms. It will use data collected in the farm and non-farm surveys. Analytical models of typical firms will be developed to simulate the behavior of firms to changes in terms and supplies of credit and savings facilities. Changes in borrowing limits and interest rates, will be assumed and the possible impacts traced out in terms of production, income and employment.

The third type of study will be case studies to deal with the behavior of selected formal lenders. These studies will be designed to identify the factors which influence the lenders' choice of portfolio. Their distribution of farm and non-farm rural loans will be analyzed to determine how credit supplies can be increased. Lending costs will be analyzed to determine how credit supplies can be increased. Lending costs will also be analyzed to determine how they may affect a lender's interest in making small loans.

The fourth type will be also case studies and will involve selected firms selling inputs and purchasing farm products. These firms provide important sources of credit for farmers. The expansion of formal credit may substitute for these informal sources, thereby permitting them to use internal funds for other purposes.

Government credit policies and programs affecting rural finance will be inventoried and analyzed in the fifth type of studies. Government activities can provide incentives for increased lending. Some policies, such as interest rate controls, can introduce impediments by reducing the return from loans below that required to cover costs. The effect of these policies on lender behavior needs to be analyzed.

(3) Methodologies

(A wide range of methodologies are expected to be required to complete this component of the research.) Descriptive analysis will be used for topics like sources and uses of funds. Balance sheets and income statements with appropriate statistical tests will be used as the primary tools of analysis. Detailed enterprise budgets will be developed to determine cash requirements. Analytical models will be developed to represent typical firms in selected regions. The model will be disaggregated to capture seasonal variations in farm cash requirements. Borrowing and savings activities will be included in the models so the impact of simulated interest rates, borrowing limits, and capital requirements can be studied. Consumption and savings propensities will be incorporated to reflect cash withdrawals for household purposes. Bank simulation models may be used to analyze and predict lender behavior.

(4) Data Requirements

Data will need to be collected from farm and non-farm firms and lenders. The farm data will include:

- Operating cash requirements by enterprise.
- Formal and informal credit including amount, terms, and purpose.
- Savings activities.
- Income and expense flows.
- Capital stock.

The non-farm firm data will include basically the same general categories. Data from lenders will include sources, allocation by type and return, interest and non-interest charges, non-credit activities with clients, etc. An inventory of credit and savings programs and policies will be made and secondary data will be used to analyze total credit flows to agriculture by source.

6. Geographic Focus

The field investigations for these studies will be carried out in three areas, one in the Northeast, one in the

North, and, for comparative purposes, one in the Central Plain. The specific locations will be identified during the first month of the project according to the following criteria:

- Each location should be as representative as possible of the region's dominant cropping system, as well as its primary non-farm enterprises.
- Location selection must take into account logistical considerations because an important objective of the project is to build survey research capability in Kasetsart, Chiang Mai and Khon Kaen Universities.
- Availability of previous studies for comparative purposes must be considered in order to increase understanding of changes in structure over time.
- Choosing the locations, in order for the project results to have a maximum impact, will take into account USAID and other donor agency target areas.
- Notwithstanding the above, the selected areas will be those in which the population has not received normal services and has limited potential for increasing income.

The final choice of specific locations will be made by the Project Director in consultation with project participants from the three Thai universities involved, OSU and MSU research advisors, and USAID.

7. Other Project Components

In addition to the studies and evaluations outlined in Part II.B.5. above, the project will also include a technical assistance component, a series of conferences and workshops and project development activities for future projects. These are discussed in more detail below:

a. Technical Assistance

Technical assistance for this project will be from two sources. Project funding will support approximately 24 person months of consulting assistance. The services of these consultants will support the work of Kasetsart University as well as Khon Kaen and Chiang Mai Universities. Their

services will also be available to RTG entities such as the DIP, the NESDB, and the BOI. This technical assistance is meant to help the RTG to analyze problems of rural industrialization, to determine appropriate policies, and to design suitable programs and projects for rural enterprises.

The second source of technical assistance will be provided through centrally funded activities, administered by DS/RAD, with OSU and MSU. Under this arrangement, one full-time research advisor and short term technical assistance will be made available to this project.

b. Conferences and Workshops

Two conferences, one held midway through the project and a second at the end of the project, and occasional workshops will be funded under this project to accomplish the following objectives:

- Disseminate the results of the research findings.
- Increase the participation of the RTG entities concerned with the problems of rural industrialization research and analysis.
- Facilitate communications and interaction among RTG agencies concerned with policy and project development.

c. Project Development

The proposed studies and evaluations will provide basic data and analysis needed to develop policies, programs, and projects for stimulating the development of labor intensive, small-scale industries in the market towns and rural areas of Thailand. The project will focus on the task of formulating concrete project proposals in this area. Funding to carry out these proposals could come from many sources.

PART III. PROJECT ANALYSIS

A. Project Beneficiaries

It is intended that the policies and programs that develop as a result of this project will benefit entrepreneurs of small rural enterprises who are often poorer members of the community and low income rural households who will have increased opportunities for off-farm employment and income.

B. Economic Concerns

While a direct linkage between this project and the poor majority as beneficiaries has not been formally demonstrated, it is nonetheless clear that this project will benefit poorer rural entrepreneurs and unskilled laborers. Limiting projects developed as a result of this project to rural locations, labor intensive and small capitalization type activities will necessarily insure this outcome. The 1978 IBRD Country Report, for example, states that cassava production and processing (which is labor intensive and requires small capitalization) has been the single most important factor in raising incomes in the Northeast. The present project will attempt to identify similar opportunities.

Cost-benefit or cost effectiveness analyses are not required for this immediate project as the benefits are either non-measurable or there is no other cost-effective manner to obtain these benefits. Further, economic feasibility and benefit incidence is at the root of subsequent rural employment projects that will be proposed and, hence, these issues will be separately addressed in those projects.

C. Administrative Feasibility

1. Roles in Project Implementation

a. Kasetsart University

Kasetsart University through its Center for Applied Economics Research will be the primary implementing agency for this project. The Center, which was created to conduct research on economic problems, especially in rural areas, has the ability to draw upon faculty resources throughout the University. Several members of the faculty have been trained at the graduate level both in the U.S. and abroad. They have participated in field surveys and a number have conducted research with international agencies (IBRD, ADB, etc.)

Kasetsart will also be able to recruit researchers from other universities, primarily Chiang Mai and Khon Kaen, or elsewhere to work directly with the project research staff. In other cases, it may sub-contract portions of the field research to other institutions. Again this will most probably be with Chiang Mai and Khon Kaen. The possibility of establishing sub-units for research coordination and direction at these two locations is very possible and will be explored further early on.

Preliminary contacts have been made with these institutions. Chiang Mai's College of Agriculture and College of Social Science both have staff members with advanced training and capable of making an important contribution. They have also expressed an interest in participating. Preliminary information suggests that Khon Kaen has somewhat less capacity for such work. In both cases as much as the research as possible will be conducted with local support so that the project will contribute to building institutional capability for carrying out this type of research.

In anticipation of the possibility of implementing this project, several Kasetsart staff members have organized their commitments in order to provide maximum time for this project. In addition, a number of the staff at both Kasetsart and Chiang Mai have just returned from graduate programs abroad and are not yet heavily committed to other research projects.

Kasetsart University will appoint a full-time Project Director who will be responsible for overall project management. He will be assisted by administrative officers responsible for logistics and daily administration. Two research coordinators will be appointed, one to oversee the research on the rural non-farm enterprise component and another to focus on the farm level and rural financial markets studies. They will oversee the activities of the research associates, and the field supervisors and enumerators engaged in day-to-day data collection. The research coordinators and research assistants play a major role in data analysis and preparation of the research results. (See Annex B, Research Plan and Staffing.)

Kasetsart recognizes the importance of having sociologists and anthropologists involved, in addition to economists, in the project. Besides being able to draw from faculty resources in these areas at both Kasetsart and Chiang Mai, contacts have been made and assistance will be available from Chulalongkorn University and the National Institute of Development Administration (NIDA).

b. A.I.D.

(1) USAID

USAID will appoint a Project Officer, in the Office of Rural Development, for project monitoring, day-to-day implementation matters, evaluation, liaison with RTG government agencies, Kasetsart University and the U.S. consultants. He will, in turn, be supported by the internal USAID Project Committee.

Other members of the USAID staff, in addition to the Project Officer, will be involved in the identification and formulation of fundable projects that emerge from the results of this assessment.

(2) AID/W

DS/RAD will make available the services of the staff of OSU and MSU through already centrally funded contracts. (See III.C.1.d. below.)

In addition, DS/RAD will serve as the U.S. Coordinator for procurement of U.S. consulting expertise. All actions will be in collaboration with and acceptable to USAID. These consultants will be both economists and sociologists/anthropologists. They will assist the Project Director in such areas as research design, questionnaire design, data analysis, legal questions such as taxes, analysis of financial markets, and industrial economics.

c. DTEC

Funds to be managed by Kasetsart University will be channeled through DTEC, the RTG agency for coordination of foreign technical and economic assistance programs. In this role, DTEC also provides an audit function and a project monitoring function.

Preliminary discussions have been held between representatives of DTEC, Kasetsart, and USAID to reach agreements on ways in which funds can be advanced, submission of vouchers, repayment procedures, authorized amounts for honorariums, salaries of temporary personnel, etc. Final agreement on these and other details will be covered in the Project Agreement.

d. Ohio State and Michigan State Universities

OSU and MSU, through the centrally funded cooperative agreements with DS/RAD, will provide a full-time research advisor, to be located in Thailand, to, in addition to his technical assistance capacity, also coordinate the other inputs of the centrally funded projects and the activities of the U.S. consultants with the work undertaken by Kasetsart.

In addition, under the cooperative agreements, OSU and MSU will provide approximately 12 work months of short-term consulting and assistance from four graduate research assistants. The latter will work both in the field (five to six work months) and on-campus (24 work months).

All personnel working under the centrally funded cooperative agreement will be entitled to the benefits normally accorded AID contractors. The benefits allowed will depend on length of tour.

e. Implementation Committee

An Implementation Committee, made up of representatives from Kasetsart, DTEC, USAID, and others as needed on an ad hoc basis, will be formed. Meeting on a regular basis, this Committee will serve as a coordinating body dealing with and seeking solutions for administrative type implementation problems. The Committee will also review progress throughout the project.

f. Advisory Committee

The Advisory Committee will involve selected representatives of RTG organizations and the business community in the project. The size and composition of the Committee will be determined prior to the first workshop. Members will be selected on the basis of their interest in the project, the need to involve certain strategic organizations, and the access to information and institutions that they can provide. In addition to these roles, the Committee will help to prevent duplication and excessive overlap with previous or concurrent research, to interest RTG organizations in utilizing the information provided by the project, to evaluate the generalizability of the information, and to interpret the results for the private sector.

g. Private Sector

Since this project will be concerned with measures to promote private sector business activities, it is necessary to establish contacts with key members of the private business community, both in Bangkok and in the areas in which the non-farm enterprise surveys will be carried out. These contacts will provide access to channels of communication necessary to understand the problems and prospects of developing rural non-farm enterprises in specific areas and type of industries to be considered. In addition, these contacts should be helpful in providing a realistic appraisal of the practicality of alternative policy and project measures recommended to promote rural enterprise development. Accordingly, knowledgeable representatives of the private business community should be selected to participate on the Advisory Committee. Prior to the initiation of this project, an overview of the present structure of the Bangkok business community will be undertaken to identify key individuals who might be useful as participants on the Advisory Committee and who could assist with providing contacts and introductions necessary to carry out parts of the non-farm enterprise studies.

2. Problem Areas

a. Project Timing

As indicated in the Implementation Plan (Part V.A.), surveys need to begin in June with the beginning of the cropping season if the project is to be most effective. Funds must flow in a timely manner or a major portion of the activity would be delayed. This would allow additional time to work out survey details, determine survey areas, solve transportation problems, etc. Delay may also result in the need to extend the project from two to two and one-half or possibly three years.

b. Transportation

Surveys require transportation. In addition, transportation will be required for the research advisors. Estimates are that three small trucks and 12 motorcycles are the minimum amount needed. Vehicles purchased with AID funds, taking into account the time needed for normal procurement, will not provide the necessary transportation in time.

It is the intention of project personnel to rent trucks. Motorcycles cannot be rented. They are essential for use by the data-collectors who must be very mobile. A source waiver for local procurement has been requested.

D. Socio-Cultural and Environmental Concerns

As this project is only assessment, it will not bring about any direct changes in either society or the environment. However, the potential social and environmental impacts of the off-farm generation strategies identified will be assessed prior to being recommended for implementation and the research design itself will pay close attention to both socio-cultural and environmental appropriateness.

PART IV. FINANCIAL PLAN

A. <u>Bilateral Funds</u>	<u>Year I</u>	<u>Year II</u>
Indigenous Personnel Costs	130,500	92,800
Travel and Per Diem	44,000	20,000
Miscellaneous Supplies and Materials	25,000	10,000
Computer Services	8,000	12,000
Seminars, Workshops, Evaluations	3,000	3,000
Communications, Duplicating, Respondent Fees, Contingencies	<u>10,000</u>	<u>11,700</u>
Sub-Total	220,500	149,500
Consultants	<u>130,000</u>	
Total	500,000	=====

Detailed Budget

<u>Salaries or Honorariums</u>	<u>Year I</u>	<u>Year II</u>
<u>Administrative:</u>		
Project Director - 18 pm	4,800	4,800
Project Asst. Director - 18 pm	3,600	3,600
Admin. Assistant - 48 pm	7,200	7,200
Typists - 48 pm	5,000	5,000
Driver - 24 pm	2,000	2,400
<u>Farm Survey</u>		
Coordinator	-	-
Area Coordinator (2) - 24 pm	2,400	2,400
Field Supervisors - Senior 12 pm	1,200	1,200
- Junior 24 pm	4,000	4,500

		<u>Year I</u>	<u>Year II</u>
Data Processor	- 12 pm - Year 1	1,500	-
	- 4 pm - Year 2	-	500
Coders (5)	- 40 pm - Year 1	3,000	-
	- 20 pm - Year 2	-	1,500
Computer Programmer	- 12 pm	1,500	1,500
Key Punch Operator (3)	- 24 pm - Yr. 1	1,800	-
	- 12 pm - Yr. 2	-	1,000
Interviewers (25)	- 300 pm - Year 1	22,500	-
	- 60 pm - Year 2	-	4,500
Researchers (4)	- 48 pm	7,200	7,200
Research Assistants (4) (M.S. students)	- 48 pm	4,800	4,800

Non-Farm Firm Survey

Coordinator		-	-
Area Coordinator (1)	- 12 pm	1,200	1,200
Field Supervisors	- Senior - 12 pm	1,200	1,200
	- Junior - 24 pm	4,000	4,500
Data Processor	- 12 pm - Year 1	1,500	-
	- 4 pm - Year 2	-	500
Coders (5)	- 40 pm - Year 1	3,000	-
	- 20 pm - Year 2	-	1,500
Key Punch Operators (3)	- 24 pm - Yr.1	1,800	-
	- 12 pm - Yr.2	-	1,000
Computer Programmer	- 12 pm	1,500	1,500
Interviewers (20)	- 240 pm - Year 1	18,000	-
	- 60 pm - Year 2	-	4,500
Researchers (4)	- 48 pm	7,200	7,200
Research Assistants (4)	- 48 pm	4,800	4,800

	<u>Year I</u>	<u>Year II</u>
<u>Special Studies</u>		
Researchers (3) - 48 pm	7,200	7,200
Consultant-cum-Interviewer - 24 pm (Senior Field Researchers)	3,600	3,600
Local Consultants - 12 pm	3,000	2,000
<u>Travel and Transportation</u>		
Local transportation	4,000	4,500
Vehicles, repairs and fuel	35,000	10,500
<u>Per Diem</u>	5,000	5,000
<u>Supplies and Materials</u>	25,000	10,000
<u>Computer Services</u>	8,000	12,000
<u>Conferences, Workshops, Evaluations</u>	3,000	3,000
<u>Miscellaneous</u>		
Communications	2,000	2,000
Duplicating	2,000	2,500
Respondent Fees	3,000	3,000
Contingencies	3,000	4,200
	<hr/>	<hr/>
	220,500	149,500
		<hr/>
		370,000
		<hr/>

B. RTG Inputs

Salaries

Director	24 pm	8,400
Assistant Director	24 pm	6,000
Coordinators	48 pm	14,400
Researchers	96 pm	36,000
Administrative	24 pm	7,200
Supplies and Materials		40,000
Transportation		6,000
Communications		2,000
Office Space, Utilities, Equipment		<u>50,000</u>
Total		<u>\$170,000</u> =====

Note: The above listed RTG inputs do not take into consideration time of the RTG Project Advisory Committee. This would increase the amount, but at this time it is not possible to determine the figures.

C. DS/RAD Centrally Funded Cooperative Agreement

Full Time Coordinator	22 pm	88,000
Short Term Consultants	12 pm	48,960
Graduate Research Assistants (4)		
Field	56 pm	67,200
Campus	24 pm	18,000
International Travel		56,000
Per Diem		20,160
Computer and Programming Services		10,000
Supplies, Publications, Miscellaneous		15,000
Overhead		<u>100,000</u>
Total		<u>\$423,320</u> =====

D. Financial Arrangements

A Project Agreement signed by DTEC and USAID and accepted by Kasetsart University will be used to obligate the \$500,000 bilateral funds. The \$370,000 will be channeled through DTEC to Kasetsart University. Arrangements will be made for advance of funds. Normal DTEC-USAID procedures for advance of funds, submission of vouchers, etc. will be followed.

The \$130,000 will be sub-obligated by PIO/T(s) for various types of consultant expertise which will be more precisely identified as the project progresses. USAID will prepare the necessary documentation. DS/RAD will assist in locating and coordinating with potential consultants. Contracting arrangements may be undertaken by USAID or by AID/W acting on behalf of USAID.

The contribution to the project from the DS/RAD Centrally Funded Cooperative Agreement will be handled under currently existing arrangements and procedures.

PART V. PROJECT IMPLEMENTATION AND EVALUATION

A. Implementation Plan

The following table summarizes the schedule of anticipated activities under this project. Ideally this project will coincide with the seasonality of agricultural activities. Phase II of the non-farm survey and the farm survey should start at approximately the same time. In some areas work on the rice crop begins in June, which may be the ideal date to begin these surveys. Several activities will need to be conducted before this time. Researchers will have to be recruited, the details of the project defined, the Phase I non-farm survey completed and analyzed, and a workshop held to inform various organizations about the project.

The Phase II non-farm survey and the farm survey will be conducted for a full year. Various types of data will be analyzed and reported during the year. Selected case studies will also be conducted.

A mid-survey assessment workshop will be held approximately at the end of the first year of project implementation. This workshop will be technically oriented and will review the project for possible mid-course adjustments. Soon thereafter, the first conference will be held to present preliminary results and interpret the implications for Thai agencies. A second conference will be held at the end of the project which will summarize the final results and identify priority programs and policies to accelerate rural employment.

Schedules of Activities

<u>Activity</u>	<u>Month(s) of Implementation</u>
Recruitment of researchers and consultants	1-2
Project design	1-4
Develop farm and non-farm questionnaires	2
Hire and train interviewers	2.5-3.5
Pretest questionnaires	3

Schedules of Activities (Contd.)

Conduct Phase I non-farm survey	4
Draw farm sample	4
Analyze Phase I survey	5
Conduct farm survey	5-16
Conduct Phase II non-farm survey	6-17
Analyze characteristics of farm sample	6
Analyze characteristics of non-farm sample	7
Study government policies and program	8-10
Study business environment	8-10
Prepare first six months farm data file	11
Prepare first six months non-farm data file	12
Analyze first six months farm data	12-13
Analyze first six months non-farm data	13-14
Case studies - selected lenders, firms, dealers	11-16
Prepare twelve months farm data file	17
Prepare twelve months non-farm data file	18
Analyze twelve months farm data	18-23
Analyze twelve months non-farm data	19-23
Research design workshop	2
Mid-survey assessment workshop	11
Rural employment conference - I	12
End of survey assessment workshop	18
Rural employment conference - II	24

B. Evaluation Plan

Evaluations of the research activities being undertaken will be carried out on a semi-annual basis, beginning six months after initiation of the project. These evaluations will be planned and conducted by the MSU and OSU research advisors, assisted by the USAID Project Officer, the DS/RAD Cooperative Agreement Project Manager. Other consultants, both Thai and U.S., may be added as needed.

These evaluations will assess the progress of the studies and analyses being conducted. This includes field studies, data analyses, and report preparation. As a basis for these evaluations, quarterly progress reports will be prepared by the Project Coordinator.

Based on these evaluations the research advisors will make recommendations regarding the research plans, methodologies, administrative arrangements, or other areas in which adjustment might be needed.

The evaluation reports prepared by the research advisors will be given appropriate distribution and will serve as discussion papers for evaluation and planning sessions to consider the formulation of policies and projects to promote rural non-farm enterprises. These sessions will involve RTG agencies, USAID, and possibly other donor agencies.

In addition to the more or less internal evaluation process described above, evaluations will be conducted after one year of project implementation and again at the end of the project. These will be "in-house" evaluations in that the evaluation committee will be composed of representatives of the organizations (DTEC, Kasetsart, USAID) concerned with the project, but not necessarily involved in day-to-day project implementation. These evaluations will utilize standard AID evaluation procedures.

Evaluation of the MSU and OSU activities supporting this project will be carried out separately by DS/RAD staff according to the schedule previously prepared for this project.



DEPARTMENT OF STATE

AID/W APPROVAL MESSAGE

ANNEX A

AMERICAN EMBASSY BANGKOK

PROJ: 493-806

UNCLASSIFIED

Classification

CN: 1493 U

RECD. 22 JUL 78 2030 PM

Date Received

24 JUL 1978

DISTRIBUTION

ACT	INF
D	✓
O/FIN	✓
EXO	✓
O/PPE	✓
O/PDS	✓
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E.O. 11652: N/A

TAGS:

SUBJECT: PID FOR RURAL OFF-FARM EMPLOYMENT ASSESSMENT
 (493-3386) - RESULTS OF APAC CONSIDERATION

AT JULY 11 MEETING, APAC APPROVED PID FOR SUBJECT PROJECT
 AS FY 79 SHELF ITEM. FOLLOWING POINTS EMERGED DURING APAC
 CONSIDERATION OF PID:

(A) NAME. APAC ADDED WORD QTE ASSESSMENT UNQTE TO PREVIOUS
 TITLE, AS INDICATED IN ABOVE SUBJECT HEADING.

(B) AREA CONCENTRATION. APAC BELIEVES THAT FOCUS OF PROJECT
 SHOULD BE ON AREAS OF NORTH AND NORTHEAST THAILAND IN LINE
 WITH OVERALL AID STRATEGY, ALTHOUGH IT IS REALIZED THAT
 OTHER AREAS MUST BE INCLUDED FOR COMPARATIVE PURPOSES AND
 THAT TOTAL AREAS TO BE INCLUDED MUST BE LIMITED BECAUSE OF
 LIMITED AMOUNT OF PROJECT FUNDING. PER SEPTTEL, APAC ALSO
 BELIEVES THAT TO LARGEST DEGREE POSSIBLE CONSISTENT WITH
 THE REQUIREMENTS FOR QUALITY, STUDIES SHOULD BE SLANTED TO
 PROVIDE SUPPORT FOR ANALYSIS OF OTHER AID PROJECTS, PARTICU-
 LARLY NORTHEAST INTEGRATED DEVELOPMENT (SEE SEPTTEL).

(C) LOCAL UNIVERSITIES. APAC ENDORSED CONCEPT OF INCORPOR-
 ATING MAXIMUM AMOUNT OF PARTICIPATION BY LOCAL THAI

INSTITUTIONS, PARTICULARLY UNIVERSITIES IN NORTHEAST, IN
 PROJECT DESIGN.

(D) INITIAL ENVIRONMENTAL EXAMINATION. APAC ACCEPTS PID
 RECOMMENDATION FOR, IN EFFECT, NEGATIVE DETERMINATION.

(E) CONGRESSIONAL NOTIFICATION (CN). REQUEST MISSION
 SUBMIT DRAFT CN AS EARLY AS PRACTICABLE SO THAT ITS SUB-
 MISSION WILL NOT DELAY AUTHORIZATION ONCE PP IS COMPLETED.

(F) DESIGN TEAM. ASIA BUREAU WILL WORK WITH DS/RAD IN
 ASSEMBLING DESIGN TEAM FOR ARRIVAL THAILAND OCTOBER 1978
 ALONG LINES LAID OUT IN PID. WILL KEEP MISSION INFORMED
 OF DEVELOPMENTS. VANCE
 BT

BEST AVAILABLE COPY

**PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK**

ANNEX B

Project Title: Rural Off-Farm Employment Assessment

**Life of Project:
From FY 79 to FY 81
Total US\$500,000**

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal:</p> <p>Increase incomes and employment of poor in rural Thailand.</p>	<p>Measures of Goal Achievement:</p> <p>1.Measurable decrease in unemployment level in rural areas. 2.More equitable income distribution in rural areas.</p>	<p>Economic data sources</p>	<p>Assumptions for achieving goal targets:</p> <p>1.Non-farm employment projects based on this project data are successfully carried out. 2.Entrepreneurs receptive to recommendations. 3.Generally stable economic and political situation. 4.Population pressures stabilize.</p>
<p>Project Purpose:</p> <p>Develop sound policies and projects aimed at increasing non-farm employment.</p>	<p>EOPS:</p> <p>1.Data accepted and being utilized by RTG and Donor community for policy formulation and project development activities. 2.Concerned Thai agencies continuing non-farm research activities.</p>	<p>1.Project Evaluations. 2.Feedback from conference and workshops. 3.RTG Development Plans. 4.Project proposal documents. 5.Donor Community.</p>	<p>Assumptions for achieving purpose:</p> <p>1.RTG committed to decentralizing industry. 2.Donors receptive to off-farm employment projects. 3.Thai institutions capable of utilizing and updating data.</p>
<p>Outputs:</p> <p>1.Studies and analyses. 2.Conferences and Workshops.</p>	<p>Magnitude of Outputs:</p> <p>1.a)Non-farm enterprises surveys. b)Farm Household studies. c)Field Surveys(2). d)Case studies(5). 2.Two conferences on rural industry, three workshops for researchers.</p>	<p>1.Project Reviews and Monitoring. 2.Project documentation.</p>	<p>Assumptions for achieving outputs:</p> <p>1.Support for studies considered high priority by participants. 2.Rural people cooperate in surveys.</p>

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Inputs:</p> <p><u>RTG</u></p> <p>Personnel and Data Office space and support.</p> <p><u>AID</u></p> <p>1. Project monitoring 2. Technical Assistance 3. Evaluations</p>	<p>Implementation Target:</p> <p>See Inputs Section and Financial Plan.</p>	<p>RTG and AID budget and planning documents.</p>	

STATUTORY CHECKLISTI. COUNTRY CHECKLIST

The Country Checklist is contained in and has been approved as a part of the Malaria and Vector Control Project Paper (Project 493-0305).

II. PROJECT CHECKLISTA. General Criteria for Project

1. App. Unnumbered; FAA Sec. 653(b); Sec. 671

(a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project;
(b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure).

The project is presented in the Congressional Presentation for FY 1980 and a Congressional Notification of AID's intention to fund the project in FY 1979 is being processed. The assistance is within the OYB.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

Yes.

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

No further legislative action is required.

4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per the Principles and Standards for Planning Water and Related Land Resources dated October 25, 1973? Not Applicable.
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project? Not Applicable.
6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multilateral organizations or plans to the maximum extent appropriate? No.
7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions. The project will not bring about any of these changes. It is probable, however, that projects which result from this assessment would have a positive impact on items a through e. Item f is not applicable.

8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

This project is not designed to encourage U.S. private trade or investment abroad.
9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.

Not Applicable.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?

The U.S. does not own excess foreign currency.
11. ISA 14. Are any FAA funds for FY 78 being used in this Project to construct, operate, maintain, or supply fuel for, any nuclear powerplant under an agreement for cooperation between the United States and any other country?

No.

B. Funding Criteria for Project

1. Development Assistance
Project Criteria

a. FAA Sec. 102(c); Sec. 111; Sec. 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

(a) These criteria are not applicable to this assessment. However, the projects developed as a result of this assessment will involve the rural poor in development by providing off-farm income opportunities for farm households and increasing of new small rural enterprises in terms of number and/or size. The increase of these rural enterprises will promote spreading investment out from cities to small towns and rural areas.

(b) Not Applicable.

b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: (include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.)

(1) (103) for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; (103A) if for agricultural research, is full account taken of needs of small farmers;

Projects resulting from this assessment will be specifically to increase productivity and income of the rural poor. Agricultural Research is not a part of the project.

(Note: Sections B.1.b.(2) through B.1.b.(5) are not applicable to this project.)

- (2) (104) for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor;
- (3) (105) for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development;
- (4) (106) for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:
 - (a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;
 - (b) to help alleviate energy problem;
 - (c) research into, and evaluation of, economic development processes and techniques;

(d) reconstruction after natural or manmade disaster;

(e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;

(f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

(5) (107) by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

As indicated in the Financial Plan (Part IV), RTG inputs into this project will be at least 25% of the total USAID financed cost. The contributions of the various participants will be spelled out in the Project Agreement.

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory

Grant capital assistance is not a part of this project.

to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"?

e. FAA Sec. 207; Sec. 113.

Not Applicable.

Extent to which assistance reflects appropriate emphasis on: (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (6) integrating women into the recipient country's national economy.

f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

This project, using the Thailand's intellectual resources, will determine the needs and ways to meet these needs of the rural poor.

g. FAA Sec. 201(b)(2)-(4) and - (8); Sec. 201(e); Sec. 211(a)(1)-(3) and - (8). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

Projects resulting from this assessment will contribute to development activities in increasing economic resources and productive capacities, and self-sustaining economic growth.

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

Not Applicable.

2. Development Assistance Project Criteria (Loans only)

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

The project is not loan funded.

- b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

- c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically manner?

- d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

- e. FAA Sec. 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources?

- f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

3. Project Criteria Solely for Security Supporting Assistance

- a. FAA Sec. 531. How will this assistance support promote economic or political stability?
- b. FAA Sec. 533(c)(1). Will assistance under the Southern African Special Requirements Fund be used for military, guerrilla, or paramilitary activities?

This project is not funded under Security Supporting Assistance.

ANNEX D

GRANTEE'S APPLICATION FOR ASSISTANCE

(To be added at a later time)

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RESEARCH PLAN AND STAFFING

I. Farm Survey and Rural Financial Markets

A. Procedure

1. Collect data from approximately 100 farms in each of three geographic areas over a one year period. Farms selected will represent three size categories.
2. Develop Linear Programming (LP) Models for typical farms in the three geographic areas representing the three size categories of farms for purposes of policy analysis on credit and labor.
3. Estimate income elasticities of demand for rural produced goods by the farm population.
4. Conduct case studies on selected input and product marketing firms, and formal and informal lenders.

B. Staffing

1. Coordinator
 - a. Supervise all research conducted under this component of the project.
 - b. Design data collection instruments, sampling techniques, and research methodologies.
 - c. Hire and coordinate all staff employed under this project component.
 - d. Maintain liaison with the Project Director.
2. Field Supervisors - Three (one for each study area)
 - a. Assist with selection of sample farms
 - b. Train interviewers
 - c. Assist with hiring interviewers
 - d. Contact farmers to be interviewed
 - e. Supervise interviewers

- f. Spot check data obtained
 - g. Review and collect completed questionnaires
 - h. Assist with design of questionnaires
 - i. Pay interviewers and account for funds
3. Data Processor - One
- a. Design codes
 - b. Assist with hiring coders
 - c. Design data editing procedures
 - d. Train coders
 - e. Supervise coding and key punching
 - f. Pay coders and key punch operators and account for funds
 - g. Coordinate editing of data
4. Coders - Five
- a. Code data
5. Computer Programmer - One
- a. Develop programs for consistency checks on data
 - b. Process consistency checks
 - c. Prepare data tapes
 - d. Program analysis for researchers
6. Key Punch Operators - Three
- a. Punch data
 - b. Verify card punching

7. Interviewers - Twenty-five

Each interviewer will have fifteen farms to be visited once a week. A standard questionnaire will be employed each week plus occasional special questionnaires.

- a. Assist with contacting farmers
- b. Assist with design of questionnaires
- c. Conduct interviews
- d. Review and revise completed questionnaires

8. Researchers and Research Assistants - Eight

- a. Assist with design of questionnaires, sampling techniques, and research methodology.
- b. Conduct LP studies of typical farms (three farm size units in each of the three geographic areas).
 - (1) Prepare basic models with disaggregate labor and financial activities.
 - (2) Run validation tests of models
 - (3) Parameterize labor and financial coefficients, prices, and constraints according to the design established by the Coordinator.
- c. Quantify the linkages between farm and nonfarm firms, especially through product, input, labor, and financial markets.
- d. Estimate the income elasticity of demand by farm households for goods produced by nonfarm firms.
- e. Analyze sources and uses of funds by firms.
- f. Conduct case studies of specific issues such as:
 - (1) Behavior of selected formal and informal lenders
 - (2) Lender costs
 - (3) Borrower costs

9. Suggested List of Research Reports

- a. Description of sampling procedures
- b. Descriptive characteristics of sample households
- c. Financial characteristics of sample households
- d. Family labor supply and labor force participation
- e. Household income, expenditures, and financial cash flow.
- f. Description of typical farm models
- g. Credit use and demand by farms and nonfarm firms
- h. Case studies of selected lenders
- i. Review of rural credit policies and programs
- j. Borrowing and lending costs
- k. Impact of formal credit use

II. Survey of Nonfarm Activities

A. Procedure

1. Conduct a complete Phase I enumeration of rural nonfarm activities in each of the three study areas.
2. Collect Phase II data, over a one year period, from approximately 100 firms (selected from the Phase I survey) in each study area, that have been picked from key industries.
3. Analyze the profitability and growth potential of firms interviewed.
4. Conduct case studies of selected activities not covered in the detailed survey described in II.A.2. above.

B. Staffing

1. Coordinator
 - a. Supervise all research conducted under this component of the project.
 - b. Design data collection instruments, sampling techniques, and research methodologies.
 - c. Hire and coordinate all staff employed under this component.
 - d. Maintain liaison with the Project Director.
2. Field Supervisors - Three (one for each study area)
 - a. Assist with selection of sample firms
 - b. Assist with hiring interviewers
 - c. Train interviewers
 - d. Contact firms to be studied
 - e. Assist with design of questionnaires
 - f. Pay interviewers and account for funds
3. Data Processor - One
 - a. Design codes
 - b. Assist with hiring coders
 - c. Train coders
 - d. Design data editing procedures
 - e. Supervise coding and key punching
 - f. Pay coders and key punch operators and account for funds
 - g. Coordinate editing of data
4. Coders - Five
 - a. Code data

5. Computer Programmer - One
 - a. Develop programs for consistency checks of data
 - b. Process consistency checks
 - c. Prepare data tapes
6. Key Punch Operators - Three
 - a. Punch data
 - b. Verify card punching
7. Interviewers - Twenty

Each interviewer will have twenty firms to visit once a week. A standard questionnaire will be employed each week plus occasional special questionnaires.

 - a. Assist with contacting firms
 - b. Assist with designing questionnaires
 - c. Conduct interviews
 - d. Review and revise completed questionnaires
8. Researchers and Research Assistants - Eight
 - a. Assist with design of questionnaires, sampling techniques, and research methodology.
 - b. Develop a descriptive profile of firms interviewed in Phase I emphasizing capital and labor use by type of goods or services produced.
 - c. Analyze sources and uses of funds by firms
 - d. Estimate economic viability of different size firms in various industries.
 - (1) Calculate profitability and rate of return
 - (2) Compare resource use, output and profits of firms with different production techniques.

- (3) Review production, marketing and financial management techniques of entrepreneurs.
 - e. Conduct case studies on specific engineering, technological and management problems of selected firms.
9. Suggested List of Research Reports
- a. Description of Phase I survey and results
 - b. Description of sampling procedure for Phase II
 - c. Descriptive characteristics of firms included in Phase II
 - d. Financial characteristics of sample firms
 - e. Labor use of sample firms
 - f. Financial cash flow analysis of sample firms
 - g. Profitability of firms
 - h. Characteristics of entrepreneurs
 - i. Case studies of selected industries.

ANNEX G

POSITION DESCRIPTION

Long Term Advisor

Duties

Working with the Project Director and other key project personnel, the Long Term Advisor will be involved in all aspects of the project from the initial planning to summarizing the research results and making recommendations regarding potential development projects. More specifically the advisor will:

1. Assist the Project Director in monitoring and coordinating the various aspects of the project.
2. Advise the Project Director on the needs, selection, and timing for consulting services and assist in coordinating the activities of the consultants.
3. Work closely with the Project Director and the other staff in the design of questionnaires, selection of samples, pre-testing of questionnaires, tabulation of data, etc.
4. Have major responsibility for the organizing and analysis of data.
5. Assist in organizing the seminars and workshops.
6. Assist in the preparation of progress reports and the final report of the project results.

In carrying out these duties it is anticipated that the Advisor can assist the staff of Kasetsart, Chiang Mai, and Khon Kaen Universities in improving research, organization, data handling, and publication activities.

Qualifications

1. Ph.D. in agricultural economics with a strong background in international agricultural development.
2. At least five years research experience in LDCs with an emphasis on farm-level survey and analysis.

ANNEX H

SAMPLE QUESTIONNAIRES

Non-Farm Enterprise Survey - Phase II

QUESTIONNAIRES RECOMMENDED FOR SMALL-SCALE
INDUSTRY SURVEYS¹

Form I	Inventory of Buildings (Twice Yearly) ²
Form II	Inventory of Equipment and Furniture (Twice Yearly)
Form III	Inventory of Materials and Output (Twice Yearly)
Form IV	Labor Input Data (Twice Weekly)
Form V	Output Data (Twice Weekly)
Form VI	Miscellaneous Input Data (Weekly and Monthly)
Form VII	Financial Information (Four Times Per Year)
Form VIII	General Characteristics of Entrepreneurs (Once)

¹Note: These questionnaires are revised versions of the forms used in the Sierra Leone small-scale industry survey.

²Frequencies of visits are noted in parentheses.

FORM VI MISCELLANEOUS INPUT DATA (Weekly)

Date of Visit _____ Locality _____ Enterprise _____
 Establishment Number _____ Name of Enumerator _____

Item (a)	Origin or Brand Name (b)	Cash			Credit			Purchased From (i)	Location of Seller (j)
		Quantity		Value (e)	Quantity		Value (h)		
		Unit (c)	No. (d)		Unit (f)	No. (g)			
1. Raw materials:									
2. Lubricants									
3. Fuel									
4. Transportation costs									
5. Office supplies									
6. Repair & maintenance									
7. Spare parts									
8. Commissions									
9. Other (specify)									

Item	Origin or Brand Name	Cash			Credit			Purchased From	Location of Seller
		Quantity		Value	Quantity		Value		
		Unit	No.		Unit	No.			
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
(Monthly)									
10. Electricity bill (How many kilowats?)									
11. Rent on equipment									
12. Rent on building									
13. Telephone bill									
14. Water rate									
15. Wages and salaries (Paid monthly)									

Name of Worker	Sex	Wages Paid In		
		Cash (Le.)	Kind (Check if Relevant)	
			Lodging (✓)	Food (✓)
<u>Hired Workers</u>				
<u>Apprentices</u>				

SMALL ENTERPRISE SURVEY

Phase 2a

Location	Name of Enumerator	Date
	Name of Supervisor	Serial

I. DEMOGRAPHIC DATA

1. Name of Enterprise
 2. Sex
 3. age
 4. Type of Enterprise
 5. Status (e.g., owner, manager)
 6. Do you have any other occupations? yes, no
If yes, a) What other occupations do you have?
b) How much time do you spend at these?
 7. What was your father's major occupation?
 8. What nationality are you?
 9. What was your previous occupation?
 10. How many people live in your home most of the year?
-

II. EDUCATION AND TRAINING

11. Have you had any formal schooling? Yes No
12. If yes, how many years of formal schooling have you had?
13. Do you have apprentices now? Yes No
14. If yes, what is the duration of apprenticeship in this enterprise?
15. Do you charge any learning fee? Yes No
16. If yes, how much per month? (ingourdes)
17. How did you learn your trade?
 apprenticeship. If apprenticed, in which industry?

- trade or technical school
- self-taught
- other (specify) _____

18. How long did your training take? _____

III. OWNERSHIP OF ENTERPRISE

19. How many years have you been in this business?
20. Which of the following patterns of ownership is/are applicable to your enterprise?

- Sole Proprietorship
- Family
- Cooperative
- Limited Liability Co.
- Partnership
- Other (specify) _____

IV. EXPANSION

21. Has the number of firms in your line of production in this village/ town/neighborhood increased, decreased, or remained the same compared with:
- last year? _____
 - the last five years? _____
 - don't know _____
22. Has your output increased, decreased, or remained the same compared with:
- last year? _____
 - the last five years? _____
 - not applicable _____
23. Do you plan to increase your production in the next year?
- a) Yes
 - i) If yes, by how much (percentage)? _____
 - ii) To whom will you sell the increased production?

- a. local
- b. traders
- c. export
- d. other

iii) Where do you hope to get the money to finance this increased production?

iv) What do you consider to be the most important problems in your enterprise?

___ insufficient demand

___ lack of equipment

___ shortage of raw materials

___ lack of skilled labor

___ problems with transportation to market

___ lack of credit

___ other (specify) _____

v) Which is the most important _____

b) ___ No

i) If no, what are the most important reasons for not increasing production in this enterprise?

___ insufficient demand

___ lack of equipment

___ shortage of raw materials

___ lack of skilled labor

___ problems with transportation to market

___ lack of credit

___ other (specify) _____

ii) Which is the most important _____

24. In 1978 did you export your goods to foreign countries?
___ Yes ___ No
25. If yes, how did you export such products?
___ through a private exporter ___ other (specify) _____
___ through a government agency _____
26. Did you encounter any problems while exporting products overseas?
___ Yes ___ No
27. If yes, what are those problems?
(Give list to choose from based on pretesting of questionnaire.)
28. If no, why have you not exported your products to foreign countries?
(Give list after pretesting.)
-

V. INITIAL CAPITAL

29. How much initial equipment, tools, and furniture (capital) did you have to start this enterprise? In gourdes _____
30. How much did you have in the way of raw materials when you started? In gourdes _____
31. Where did you get the money to start your business?
- | a. Personal Savings From | How much? (in gourdes) |
|-------------------------------------|------------------------|
| i. Agriculture | _____ |
| ii. Government Employment | _____ |
| iii. Other Industry (Specify) _____ | _____ |
| iv. Sale of property | _____ |
| v. Other (specify) _____ | _____ |
| b. <u>Loans From</u> | |
| i. Commercial Banks | _____ |
| ii. IDAI | _____ |

- iii. Bureau de Credit Agricole _____
- iv. Friends, Family, Relatives _____
- v. Moneylenders _____
- vi. Other (specify) _____
- c. Gifts _____
- d. Lottery, esusu, rotating credit society _____
- e. Other (specify) _____

VI. CREDIT

32. In the past year, did you borrow any money which you invested in your enterprise?

___ Yes ___ No

33. If yes, please itemize:

Source of Loans (during past year)	How Much?	Dura- tion?	How much already repaid?	How much left to pay?	Purpose of loan?	Collat- eral?
1. Friends, relatives						
2. Commercial bank						
3. IDAI						
4. Bureau de Credit Agricole						
5. Cooperatives						
6. Moneylender						
7. Private trader or merchant						
8. Other (Specify)						

34. Have you, in the past, tried to apply for a loan from a lending institution?

___ Yes

- a) If yes, did you get the loan? Yes No
- (1) If yes, how long did it take for the lending institution to approve the loan? _____
- (2) If no, why wasn't it approved? _____
- b) If you haven't tried to apply for a loan, why not? _____

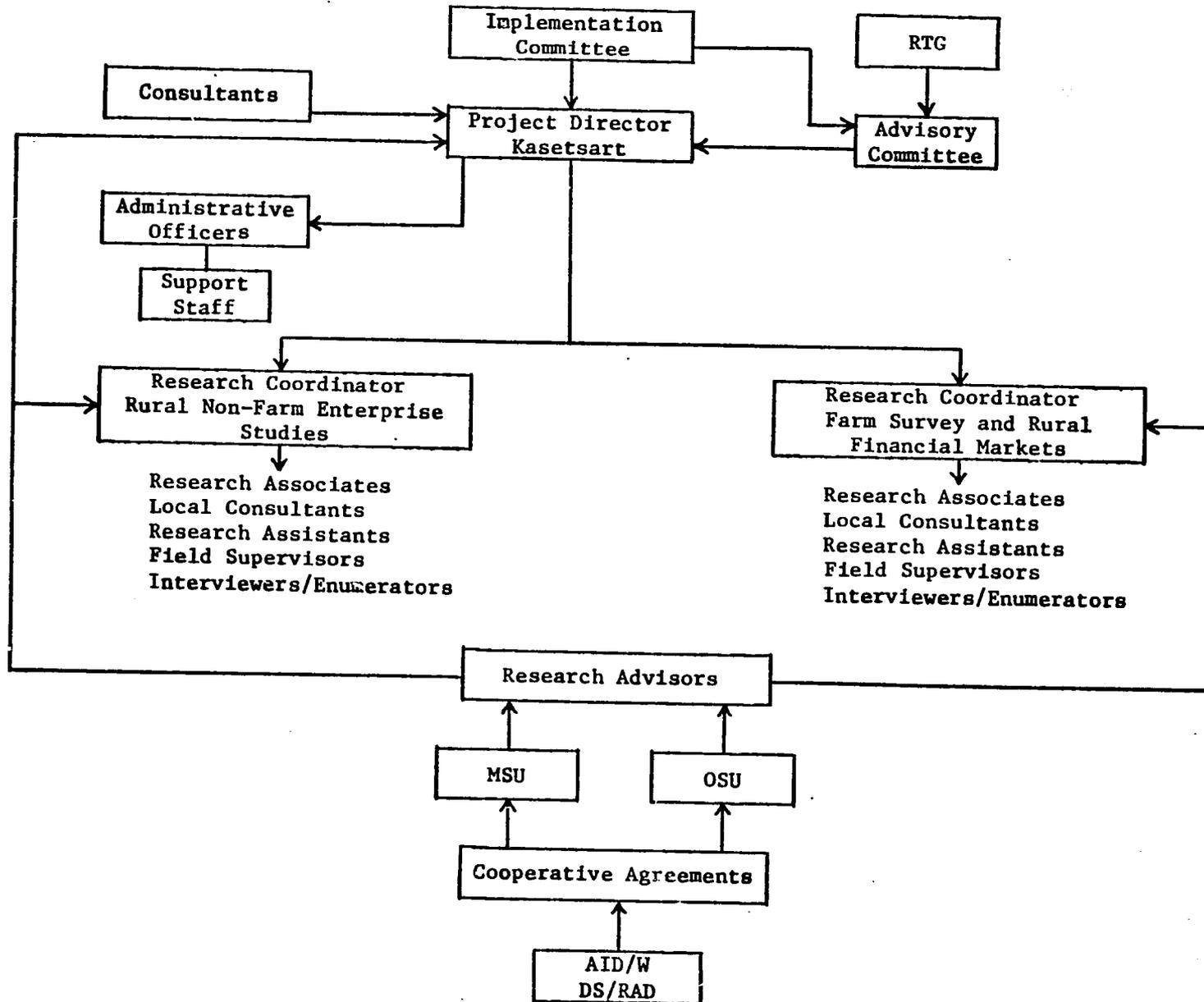
35. In 1978 did you sell your goods/services on credit?
 Yes No
36. What was the value of such credit sales (for the whole year)?

37. What was the average duration of these credit sales to your customers?

VII. MANAGEMENT

38. Do you keep any written records of your purchases or sales?
 Yes No
39. If not, why not? _____
40. If yes, what record books do you keep?
 cash book
 sales book
 production book
 attendance book
 Other (specify) _____
41. Do you have an account in any bank? Yes No
42. If yes, what types of account? savings current/
checking

ORGANIZATION CHART



LIST OF STUDIES

A. GENERAL STUDIES

1. Rural Non-Farm Enterprises

- a. Nature, extent and composition
- b. Economic viability and growth potential
- c. Financial structure and credit use
- d. Technological, financial, managerial, and other constraints

2. Rural Farm Households

- a. Household labor allocation - farm and off-farm work
- b. Household income and expenditures - farm and off-farm sources and uses
- c. Financial structure and credit use
- d. Impact of formal credit

B. CASE STUDIES

1. Thai policies and programs for industrial promotion
2. Case studies of selected non-farm firms and industries
3. Assessment of business environment and relations
4. Thai policies and programs for rural financial markets, especially credit for farm and non-farm firms
5. Case studies of selected formal and informal lenders

C. FIELD SURVEYS

1. Rural Non-Farm Enterprises

- a. Phase I - complete enumeration
- b. Phase II - year long data collection of selected firms

2. Rural Farm Households - year long data collection of selected farms