

SHORT TERM CONSULTANT'S REPORT

RURAL OFF-FARM EMPLOYMENT ASSESSMENT PROJECT
(AID PROJECT NO. 493-0306)

THAILAND

by
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1.0 Terms of Reference and Period of Time

This report covers the period August 4 - 17, 1979. The terms of reference were provided in a letter from Dr. David H. Boyne, Chairman of the Department of Agricultural Economics and Rural Sociology at Ohio State University, dated July 12, 1979. Specifically, the terms of consultancy were proposed as follows:

1.1 Review the objectives of the project relative to the farm component.

1.2 Review and further delineate primary research issues concerning farm firms.

1.3 Propose specific research projects concerning farm firms and offer appropriate research methodologies for them.

1.4 Suggest data needed and ways of collecting them.

1.5 Review other issues pertaining to the project.

2.0 Farm Level Study Objectives in Relation to Total Project

2.1 Overall Project Objectives

In concise terms, the main purpose of the Rural Off-Farm Employment Assessment Project is to identify and develop appropriate projects and policies that could assist in the expansion of nonfarm employment and income opportunities in the rural areas and market towns of Thailand. Clearly, the project design contains no intervention of its own to improve the living conditions of rural Thai families. It is a data collecting and analysis project with a focus on nonfarm small scale industry with a linkage to agricultural production firms modelled in such a way as to incorporate agricultural marketing and rural financial institutions. It is from the analysis of data obtained from the project that hopefully viable projects get designed. Early in the consultancy there was discussion as to the audience for the

data collection and analysis activity. The consensus was that the primary user will be USAID Thailand with Kasetsart University benefitting as the project provides the vehicle for personnel development and research opportunity. Of secondary importance, but not to be ignored, are the data needs for project design and policy analysis by the Office of Agricultural Economics and the Department of Industrial Promotion.

2.1 Farm Level Study Objectives

Below are listed the objectives of the farm level component of the project. The wording is a slight modification of that contained in the Project Paper.

2.1.1 To collect detailed primary data on numerous aspects of income generating enterprises of the rural households.

2.1.2 To examine the nature of the farm sector demand for labor and other inputs for agricultural and non-farm production carried out by the farm households.

2.1.3 To analyze the relationship between cropping/farming systems and the supply of family labor and other resource endowments as they are utilized for farm production, household consumption and off-farm employment.

2.1.4 To analyze the relationship between farm size and the importance of non-farm income sources to determine the potential distributional impacts of non-farm enterprise expansion.

3.0 Discussion of Objectives

3.1 Farm Level Interface with Other Project Components

The farm level study carries a heavy burden in the overall project. It goes beyond the traditional farm management studies which tend to hold the marketing, credit functioning and nonfarm employment activities as a constant environment within which the farm firm/household operates. In this project the system boundaries are expanded to make endogenous those elements most often held constant. It is important that the analysis of the data retain this systems approach.

The attached mimeographed material was prepared for discussion at the August 15 Workshop. In Section 3.0 of this are identified the linkages of the farm level study with the rural nonfarm enterprises, the rural financial markets and the marketing components of the overall project.

3.1 Conceptualization on which Objectives are Based

The farming sector is viewed as providing both a demand for consumable and production goods (consequently an indirect generator of employment) and a supply of marketable labor for agricultural as well as non-agricultural production activities. If this is a proper assessment, then the desired answers may not come from analyzing the household (either farm or nonfarm) as the object of study. The necessary modelling may be difficult because of the assumptions that must be made regarding such matters as labor out- and in-migration, community exchange labor practices, share of market to local versus external buyers, etc.

Nevertheless, study of the behavior of the farm firm/household complex can be very enlightening. In thinking through the research opportunities provided by the farm level study, I regarded the farm household as being a system comprised of four components: (a) a farming component for the production of commodities for family consumption and/or for sale, (b) a nonfarm (within household) component for the production of commodities for home consumption or sale as well as the production of services for home consumption, (c) an off-farm income generating component from the sale of family labor for the production of agricultural and/or nonagricultural goods and services and (d) non-income generating activities of a farm family (such as community services or traditional commitments in a Buddhist society) which compete with income generating activities on the part of the family labor.

Not all of these components are adequately represented in the accompanying mimeograph where omissions are due to the high cost of acquiring certain data (for example, the within-household production of consumable goods and services) even though from a conceptual point of view, they are extremely important.

Finally, from a conceptual and methodological viewpoint, attention needs to be given before Phase II of the study is launched as to whether data collection and analysis centers around the productive enterprises or around the family members (or some combination of the two). Earlier farm level studies in Chiang Mai have concentrated on input-output analyses of farm enterprises. This approach is particularly fruitful for developing enterprise budgets for their own sake

or for use in linear programming. However, following this approach it becomes rather difficult to analyze family labor utilization per unit of time by age, sex and other attributes.

In a project concentrating on employment, a case can be made for monitoring family member performance in whatever they do. Whether the approach is by enterprise or by family member can yield the same information. It merely has to do with how field schedules are prepared and how questions are asked.

4.0 Data Requirements and Collection

4.1 Phase I Data and Farm Household Sampling Frame

It was generally agreed by the working party that a complete enumeration and personal interviews of all village household heads was not necessarily needed to establish a sampling frame for the farm level study. If, on the other hand, it is decided to interview each village household head in order to ascertain the extent and kind of nonfarm activities taking place in the village, this census could be used as a sampling frame for the farm level study. It is my feeling that the stratification variables relevant for a farm sample would include size of land holdings, size of family, tenure arrangement and dependability of year round water supply and that these facts could be obtained rather directly and inexpensively from the village headman.

4.2 Phase II Stock Data Requirements

Most of the essential data requirements for the study are listed in Section 2 on the attached mimeograph. Missing from the stock data listing is the farm land inventory and the tenure arrangement applicable for each field. Experience has shown that this kind of information is difficult to obtain with accuracy on the first encounter. Therefore, I would propose that at the time of the stock data interview number of land parcels and relative size be shown on a simple map and to take the farmer's statement for total farm area worked. Let refinements come when inputs are recorded for actual fields.

Another omission from the stock data set is information needed to prepare a net worth statement. A proper evaluation of total assets and liabilities is also in the domain of sensitive data. Would recommend that this type of information be obtained early in Phase II after some rapport has been established between the respondent and the field enumerator. Would also recommend that when this is done to include something else not shown on the attached mimeo.

I refer to the need to gain insight into transaction costs of obtaining credit. Details for each loan should include such items as travelling distance and time to borrowing source, waiting time between loan application and loan approval and receipt of funds, difference between requested amount and approved amount, service charges, etc.

I think reasons for obtaining items 2.1.1 through 2.1.8 on the proposed list are self evident. However, item 2.1.9 may require discussion. It mentions selected household effects rather than a complete inventory. To take a complete inventory of all personal belongings is a tedious and time consuming undertaking and may in addition be considered an invasion of privacy. However, an inventory of selected items is feasible and may be instructive in identifying proxies for income level or serve to provide some index on standard of living.

4.2 Phase II Flow Data Requirements and Collection

The standard data requirements of a continuous reporting system for farm households are listed from 2.2.1 through 2.2.11.3 and to include the linkages to other aspects of the project in sections 3.1.1 through 3.3.3. No amplifications are made in this report regarding the flow data requirements of the nonfarm sector. The primary distinction between the two types of firms is that the household behaviour is monitored in the case of the farm firm while the inputs and outputs from the manufactured or processed product are being monitored in the nonfarm firm.

A main issue for concern in the collection of flow type data is the frequency of collection ... whether it is to be done daily, weekly, monthly, seasonally or once a year. The attributes effecting the choice are the frequency of the event being recorded and the

variability in the events being recorded from one time period to another. Events that vary little (such as the consumption of salt per week) need not be recorded frequently. Events that vary widely from week to week (such as the time spent on and the cash inputs spent in the production of a given crop) need to be recorded frequently. Events that occur infrequently but are of major financial consequence (such as the purchase or sale of a water buffalo, bicycle or small tractor) will be over-reported if queried too often. Once a month should be adequate.

To cover all data collection details and words of precaution would make this report needlessly long considering the experienced survey personnel connected with the project. However, given the nature of this project, one detail may be worth explicating. It has to do with the reported wage rate paid for hired labor.

For several years in Thailand the nominal wage rate for hired labor was 10 baht per day with less variation from season to season than might be expected. What one will find is that the actual payment in cash or kind will hover around 10 baht but the true wage will vary widely because of what might be called a perquisite package. Varying the length of day, the amount of rest time permitted, the amount of food and drink provided, etc, along with the 10 baht payment can cause a widely fluctuating true wage rate. This needs to be monitored carefully.

5.0 Research Opportunities

5.1 General Comment

The research potential of the project is encompassed in the project and sub-project objectives. What is done and when it is done will depend in part on the availability of trained researchers and the timeliness and accessibility of the data. Some research will undoubtedly need to be contracted to competent individuals because the climate for research in Thailand is one of competition for honoraria to supplement modest civil service salaries. Only expatriots and graduate students without alternatives will undertake research because it looks intellectually challenging without special financial considerations.

On the methodological side, the analytical tools that best capture the systems orientation of the project have the greatest appeal to me. For a system

containing farm production, farm marketing, rural credit institutions, nonfarm production and nonfarm marketing, a general systems simulation model has the greatest intuitive appeal. However, in my judgement, for this project there is inadequate time, budget, trained computer software specialists and other trained personnel to make this approach feasible. Alternatively, much of the modelling is very amenable to a linear programming conceptualization. The model can be as simple or complex as the problems call for. Aside from some special essential activities in demand analysis and labor supply analysis, The LP configuration can be extremely powerful in examining parametrically a wide range of policy alternatives that may affect the farm household, the nonfarm firm and the community at large.

5.2 Graduate Student Research

By separate communication I have recommended to Mr. Somsak Priepbrom that he undertake some aspect of the evaluation of the complementary/competitive relationships between farming systems and the expansion of nonfarm small scale industry as alternative strategies for improving income on the small farm. This has been identified as a major issue in the project paper and I agree that it should receive a high research priority. Mr. Somsak is well trained for this type of research. To be a manageable thesis, his work should be confined to one region. With enough manpower, the research should be replicated in each of the three regions because they represent three stages of development with regard to farm income and offfarm employment.

6.0 Other Matters

6.1 Administration

Clearly Dr. Tongroj has faced crippling frustrations in having to buck government red tape to this period in the life of the project. Progress was being made in straightening out the problems by the time the working party left. Arrival of the long-term consultants should provide some relief to Dr. Tongroj's administrative headaches.

6.2 External Linkages

I was fortunate in having more than 1½ hours with Dr. Somnuk Sriplung, Secretary-General, Office of Agricultural Economics, Ministry of Agriculture. We discussed

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linkages between his office and the project. He showed interest in but limited knowledge of the project. He seemed to view it as an academic exercise with its primary benefit in the area of personnel development for Kasetsart University. His interest at this time in the project is in its methodological aspects and he wants to be kept informed of developments as the project unfolds. He stressed the need to keep current in data analysis and to not fall into the routine of spending a year of collecting data, followed by a year of data processing, followed by at least a year of untimely report writing. Dr. Somnuk is a key person on the agricultural scene in Thailand and I hope he will be an active participant on the project advisory committee.

6.3 Concluding Remark

I wish to thank The Ohio State University for the opportunity to serve in this modest way on the project and to acknowledge the excellent cooperation and support from USAID/Thailand, and the participating faculties of Khon Kaen, Chiang Mai and Kasetsart Universities.

Respectfully submitted

Warren H. Vincent

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August 23, 1979

RURAL OFF-FARM EMPLOYMENT ASSESSMENT

PROJECT WORKSHOP
KASETSART UNIVERSITY
BANGKOK

August 15, 1979

- 1.0 Farm Level Study Objectives
 - 1.1 To collect detailed primary data on numerous aspects of income generating enterprises of the rural households.
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 - 1.4 To analyze the relationship between farm size and the importance of non-farm income sources to determine the potential distributional impacts of non-farm enterprise expansion.
- 2.0 Data Requirements for Farm Level Studies
 - 2.1 Stock Data
 - 2.1.1 Family labor supply by age, sex and capacity to participate in farm/non-farm employment.
 - 2.1.2 Family Dwelling : size, valuation and utilization for non-farm industry.
 - 2.1.3 Farm Buildings: use, capacity, cost, present value.
 - 2.1.4 Farm Equipment: Kind, age, cost, present value.
 - 2.1.5 Non-farm Equipment: kind, age, size, cost, present value.
 - 2.1.6 Inventory of Produce and Supplies: Kind, quantity, value by farm & Non-farm
 - 2.1.7 Inventory of livestock: Kind, age, use (breeding, draft, market) quantity & value
 - 2.1.8 Inventory of tree crops
 - 2.1.9 Inventory of selected household effects.
 - 2.2 Flow Data
 - 2.2.1 Family labor use by activity in farm enterprises by age and sex.
 - 2.2.2 Family labor use by activity in non-farm enterprises by age and sex.
 - 2.2.3 Hired labor use by time and cost (including payment in kind) by sex and by activity for farm and non-farm enterprises.
 - 2.2.4 Exchange labor by time, by sex and by activity for farm enterprises.
 - 2.2.5 Non-labor farm input amounts and cost for farm and non-farm enterprises.

- 2.2.6 Gifts to others
- 2.2.7 Farm Output
 - 2.2.7.1 Crop: Amount harvested, eaten, stored, given away and sold by enterprise.
 - 2.2.7.2 Livestock and livestock Products: Kind, Amount produced consumed, given away and sold by enterprise.
- 2.2.8 Non-Farm Output of Goods: Kind, amount produced, stored, consumed, given away sold.
- 2.2.9 Off-Farm Income (Amount by Activity)
 - 2.2.9.1 Family labor hired for farm work.
 - 2.2.9.2 Family labor hired for non farm work
- 2.2.10 Family Income: (Amount, Value, place of sale and destination)
 - 2.2.10.1 Farm Output
 - 2.2.10.2 Non Farm Output
 - 2.2.10.3 Labor sold
 - 2.2.10.3 Gifts received
- 2.2.11 Loans
 - 2.2.11.1 Received by source, amount, purpose
 - 2.2.11.2 Repaid
 - 2.2.11.3 To others
- 3.0 Additional Data Linkages to Other Sub-Projects
 - 3.1 Rural Non-Farm Enterprises
 - 3.1.1 Farm household income and expenditures data with farm and non-farm commodities disaggregated by source of supply are required for calculating demand elasticities.
 - 3.1.2 The farm level study data analyzed in relation to the data from the non-farm component should answer questions pertaining to the nature of complementary and/or competitive relationships in the employment of farm family labor and other resources in non-farm and farm enterprises on a seasonal basis with attention also given to sex and age categories for household family labor.
 - 3.2 Rural Financial Markets
 - 3.2.1 The sources of family income from farm and non farm sources including off-farm sources from both farming and non farming sources.
 - 3.2.2 The use of family funds for farming, consumption, and non-farm income generating activities.
 - 3.2.3 From the above, family cash flows and the use of credit for farm, family consumption and non-farm uses.
 - 3.2.4 The analysis of credit use will require information on both

informal and formal financial markets.

3.3 Rural Markets

- 3.3.1 Price and quantity data for all productive inputs by enterprises (farm and non-farm), disaggregated by source of supply (e.g. raw material produced locally versus imported, borrowing versus retained profits as sources of working capital). In addition, price and quantity data for all farm and non-farm products identified by commodity farm (level of processing) and market outlet.
- 3.3.2 It should be possible in the study to identify the market location and the transport mode by which the product reached the market.
- 3.3.3 It would be desirable to monitor the amount of food (or other farm product) processing that takes place in the household for family consumption and for the market. (Measured in hours spent by family member by age and sex.

WVincent/lr

August 15, 1979