



**AMERICAN PUBLIC HEALTH ASSOCIATION**  
International Health Programs  
1015 Fifteenth Street, NW  
Washington, DC 20005

A PROGRESS REPORT ON  
THE DEVELOPMENT OF AN INTEGRATED  
SYSTEM OF HOUSEHOLD SURVEYS  
FOR THAILAND

A Report Prepared By:  
THOMAS B. JABINE

During The Period:  
JULY 7, 1982 - SEPTEMBER 4, 1982

Supported By The:  
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT  
(ADSS) AID/DSPE-C-0053

AUTHORIZATION:  
Ltr. AID/DS/POP: 1/11/83  
Assgn. No. 582145

## C O N T E N T S

	<u>Page</u>
ABBREVIATIONS . . . . .	iii
I. INTRODUCTION . . . . .	1
Purpose of the Report . . . . .	1
Objectives of the Mission . . . . .	1
II. BACKGROUND: THE SETTING . . . . .	3
Introductory Note . . . . .	3
Program Activities . . . . .	3
Technical Assistance . . . . .	4
III. RESULTS AND FINDINGS . . . . .	5
Documentation . . . . .	5
Results of Program Reviews . . . . .	6
The Multipurpose Survey and the Pilot Multipurpose Survey . . . . .	6
The Labor Force Survey . . . . .	7
The Annual Village Survey and the Village Statistical Data Base . . . . .	8
Technical Assistance . . . . .	8
Assistance Related to the Thai NHSCP Project . . . . .	8
Other Technical Assistance . . . . .	12
IV. SUMMARY AND RECOMMENDATIONS . . . . .	13
Summary . . . . .	13
Recommendations . . . . .	13
 APPENDICES	
Appendix A: List of Contacts	
Appendix B: Content for Multipurpose Survey	
Appendix C: Schedule of Activities for Pilot Multipurpose Survey	
Appendix D: Final Report to the Secretary General of NSO	

## ABBREVIATIONS

APHA	American Public Health Association
DTEC	Thai Department of Technical and Economic Cooperation
ESCAP	Economic and Social Commission for Asia and the Pacific
ILO	International Labor Organization
MS	Multipurpose Survey
NHSCP	National Household Survey Capability Programme
NSO	National Statistical Office of Thailand
PMS	Pilot Multipurpose Survey
UN	United Nations
UNDP	United Nations Development Program
UNSO	United Nations Statistical Office
USAID	United States Agency for International Development

## I. INTRODUCTION

## I. INTRODUCTION

### Purpose of the Report

This report describes the objectives, findings, results, and recommendations of a technical assistance mission to the National Statistical Office (NSO) of Thailand. The mission was one of a series of short-term consultancies to aid the NSO in the implementation of an integrated program of household surveys. The NSO is undertaking this effort as a participant in the National Household Survey Capability Programme (NHSCP), a major technical-cooperation effort in statistics that is co-sponsored by the United Nations (UN), the United Nations Development Program (UNDP), and the World Bank.

The mission was funded by the United States Agency for International Development (USAID) under Agreement AID/DSPE-C-0053 in cooperation with the American Public Health Association (APHA). The author of this report was in Thailand from July 7 to September 4, 1982. During the time he worked with the NSO, he took two field trips: a one-week trip to four provinces in the north region and a two-day trip to two provinces in the eastern seaboard section of the central region of Thailand, to observe household survey operations in the field and to participate in informal testing of questionnaire modules being developed for use in the integrated household survey program.

### Objectives of the Mission

In a prior mission (August 31 to October 27, 1981), the author of this report worked with NSO on the initial design of an integrated household survey program. A major element of this program is to be the Multi-purpose Survey (MS), a continuing household survey with quarterly rounds. Data on labor force activity and a few other key topics will be collected in each round; other topics, such as income, health, and education, will be investigated each year or less frequently. Other household surveys covering topics such as population change and consumer expenditures will be conducted separately, but will make use of common facilities and will be designed to facilitate linkage of the results of all surveys for analytical purposes.

The stated objectives of the mission covered by this report were to further the implementation of the integrated household survey program by:

- Developing systematic procedures for evaluation and control of nonsampling errors at various stages of survey taking.
- Advising on the planning and implementation of postenumeration and other studies for quality control.

However, early discussions with the top officials of the NSO made it clear that there were other aspects of the program more in need of immediate attention, and that it would have been premature to give major attention to the quality control and evaluation aspects.

More specifically, Dr. Niyom Purakam, Deputy Secretary General of NSO and director of the Thai NHSCP project, had reached the conclusion that the next step in implementation should be to conduct a Pilot Multi-purpose Survey (PMS) in two provinces, in order to provide an adequate test of all survey questionnaires, training and instruction materials, collection procedures, and data-processing systems prior to initiating the MS at the national level. Since very little detailed planning had been done for the PMS, the author was requested to assist the NSO with:

- Development of the survey objectives and design.
- Content and questionnaire development.
- Preparation of a detailed schedule of activities for the preparatory and data collection phases of the PMS.

The Thailand USAID Mission, the Statistics Division of the Economic and Social Commission for Asia and the Pacific (ESCAP), and the United Nations Statistical Office (UNSO) were notified of the proposed changes in mission objectives and, there being no objections, the author gave first priority to detailed planning for the PMS.

As the mission progressed, it became evident that it might be useful to give attention also to some other aspects of NSO's work, all of them related in important ways to the implementation of the integrated household survey program. These were:

- Changes in content, design, and procedures of the ongoing Labor Force Survey.
- The Annual Village Survey and the Village Statistical Database, which is being developed by NSO.
- Training of analytical and mathematical statisticians in NSO to use the interactive computer facilities now available to them in NSO's Data Processing Center.

## II. BACKGROUND: THE SETTING

## II. BACKGROUND: THE SETTING

### Introductory Note

Detailed statements about the NSO, the NHSCP, and the Thai participation in the NHSCP were included in the report of the author's 1981 mission to Thailand (A Report on Plans to Develop an Integrated System of Household Surveys for Thailand) and will not be repeated here. Relevant developments subsequent to the 1981 mission are described in this section.

### Program Activities

Subsequent to the author's 1981 mission to NSO, at which time a comprehensive proposal for the Thai NHSCP Project was developed, the following steps were taken:

- The Secretary General of NSO designated Dr. Niyom Purakam, Deputy Secretary General, as project director.
- The Project Director appointed an NHSCP working group, with representatives from each of the NSO divisions involved in the project (Population Surveys, Economic Surveys, Field, Data Processing, and Statistical Techniques) to coordinate their participation in the project. The Project Director serves as Chair; the Director of the Statistical Techniques Division, as Vice Chair; and the Chief of the Labor Force and Education Surveys Branch, Population Surveys Division, as Secretary.
- In February 1982, a pretest of four separate questionnaires for possible use in the MS was carried out. Each questionnaire included certain "core" items (demographic and labor force information), plus a distinct supplemental module. The topics for the four supplements were (1) mass media: radio, television, and newspapers; (2) children and youth (mainly education); (3) health and welfare; and (4) annual income and work experience. Interviews were conducted, mostly by professional staff from the Population Surveys and Economic Surveys Divisions, in two provinces, both in municipal areas and villages. About 30 households were interviewed with each of the four questionnaires.

The pretest provided useful information about average length of interview with each of the four questionnaires and about problems in

collecting certain kinds of data, especially those relating to annual income and work experience. However, it did not provide a full test of data collection and processing procedures for the MS under realistic operating conditions. The project director decided, therefore, to undertake a pilot survey or dress rehearsal (the PMS) as explained in the previous section. Except for the choice of two provinces for the PMS-- Satun in the south region and Khon Kaen in the northeast region--no detailed plans for the PMS were developed prior to the author's arrival in early July. Delays probably resulted from preoccupation of the staff with efforts to complete 1980 Census of Population and Housing tabulations and with an unexpected requirement from the Office of the Prime Minister to do a special survey of rice stocks in the hands of farmers and distributors. As a result of these delays, it became evident that the MS could not begin in January 1983 as originally planned, but would have to be postponed until results of the PMS could be evaluated and taken into account.

#### Technical Assistance

Recent consultancies to NSO by ESCAP regional advisors have contributed to the progress of the Thai NHSCP project. In March and April 1982, M.V.S. Rao, ILO Regional Expert on Household Surveys, reviewed the concepts, definitions, and other aspects of the Labor Force and Children and Youth Surveys conducted by the NSO. His recommendations, especially those relating to labor force concepts and definitions, are receiving full consideration by the NSO and are likely to have a substantial impact on the core labor force module for the MS.

In June and July 1982, Gabriel Carceles, Social Statistics Adviser, undertook a broad review of socioeconomic indicators and social statistics data available in Thailand from NSO and other sources. In connection with this review, he made important contributions to the development of the content for the MS, both in terms of helping to establish priorities for topics to be covered by core and supplemental modules and in evaluating the proposed content for specific supplemental modules, especially those covering mass media and education.

The Thai NHSCP project proposal called for graduate training for seven NSO employees in various disciplines. So far, no funds have been obtained for this purpose.

### III. RESULTS AND FINDINGS

### III. RESULTS AND FINDINGS

#### Documentation

During the mission, several memoranda and reports were prepared for or in conjunction with the NSO staff. Three items are included as appendices to this report. They are:

- Appendix B

Appendix B is a memorandum from the author to the NHSCP Project Director on "Content for Multipurpose Survey." This memorandum contains a detailed proposal for the content of the core modules and the content and scheduling of the supplemental modules covering the first five years of operation of the MS. The proposal was developed as the result of several meetings with NSO staff and was reviewed by them in draft before submission to the Project Director. Agreement on content was a necessary first step in planning for the PMS, since the selection of specific supplemental modules to be tested in the PMS depended on the order in which they would appear in the MS.

- Appendix C

Appendix C is a memorandum from the author to the NHSCP Project Director on "Schedule of Activities for the Pilot Multipurpose Survey." This memorandum contains a detailed time schedule covering the preparatory and data collection phases for the PMS. Like the previous item, it was developed in collaboration with the NSO staff and was reviewed in draft by each of the divisions before transmittal to the Project Director.

- Appendix D

Appendix D is the author's final report to the Secretary General of the NSO. The report summarizes findings and presents recommendations to the NSO in each of the three major program areas covered by the mission: the PMS, the ongoing Labor Force Surveys, and the Annual Village Survey and Village Statistical Data Base. It also addresses the question of training for NSO analysts to permit them to use the NSO's interactive computer facilities, which are now being used exclusively by programmers in the Data Processing Center and by personnel of other agencies. The report also contains a list of all documents prepared during the consultancy. Copies of items not attached to this report can be obtained from the UNSO (contact Simon Goldberg, the coordinator of the NHSCP). The two memoranda included as Appendices B and C to this report were included as attachments to the final report.

## Results of Program Reviews

Detailed technical findings and recommendations concerning the program areas covered by this mission are presented in Appendices B, C, and D and will not be repeated here. A brief summary and some general observations follow.

### The Multipurpose Survey and the Pilot Multipurpose Survey

The proposed Multipurpose Survey is the key component of the integrated household survey program. As a continuing quarterly survey, the MS will take the place of several surveys that are now being conducted separately. This will lead to significant cost savings and to a data base permitting more sophisticated analyses involving variables from different topical areas, e.g., health status vs. housing characteristics. In addition, it will be possible to add on, with a fairly short lead time, inquiries on new topics for which the need has not been anticipated. Furthermore, the MS listings or questionnaires can be used as a sampling frame for followup studies of households or persons with specific characteristics.

As stated earlier, it was the judgment of the Thai NHSCP Project Director, with which the author concurred, that the MS questionnaires and procedures had not been sufficiently developed to start operations at the national level in January 1983, and that a pilot survey, carried out from start to finish under realistic operating conditions, was needed first. The primary objective of the author's mission became, therefore, to collaborate in the development of a detailed plan and activity schedule for the PMS. A review of the scheduled field work for other NSO censuses and surveys strongly suggested that the PMS field work should be completed by the end of January 1983, and the schedule of preparatory activities was developed to meet this deadline.

The consensus of the NSO staff participating in the Thai NHSCP project is that, if the schedule for data collection for the PMS is met, the results can be processed and evaluated in sufficient time to make any design changes needed and start the national MS on a continuing basis in January 1984.

A critical element in preparing for the MS is the development of questionnaire modules designed to produce relevant and accurate information. In the author's judgment, the modules that had been used in the 1982 pretest were far from satisfactory in this respect, largely because of insufficient testing in the early stages of development. In addition, not enough attention had been given to such matters as the overall length of the MS questionnaires, retaining maximum comparability with items included in the 1980 Census, and the suitability of certain items for collection from "household" or "proxy" respondents. These issues were

addressed intensively during the mission, both in conferences with the NSO staff responsible for designing the modules and through informal field testing of revised modules during the two field trips. Considerable progress was made.

In summary, substantial momentum has been developed toward implementation of the integrated household survey program, largely because of the willingness of the NSO staff involved to work as a team and to spend significant amounts of time on this project, in spite of the many other demands on their time. If the Project Director and the Secretary General give enough support and direction to sustain this momentum, the project can be carried out to a successful and timely conclusion.

### The Labor Force Survey

Since the national MS will not begin until 1984 at the earliest, the Labor Force Survey in its present form (two rounds per year) will continue through 1983. Therefore, it seemed appropriate to give some attention to certain improvements in design and methodology of the Labor Force Survey, especially since some of these will carry over to the MS when it becomes the vehicle for collection of labor force data.

Timeliness of results has been a continuing problem area for the Labor Force Survey. Typically, there has been a lapse of two years or more between completion of data collection in the field and final publication of results. This delay has hurt NSO's reputation and is intolerable in a period like the present when economic difficulties have led to heightened demand for current data on unemployment and related phenomena. In recognition of this situation, the Deputy Secretary General, Dr. Niyom Purakam, has set a target of six months for publication of the results from each round of the survey, starting with 1982 Round 1. He requested that the author develop recommendations on specific methods of meeting this target. These recommendations appear in Appendix D. One recommendation, which does not appear in the final report, because the question came up after it had been prepared, was that the changes suggested by M.V.S. Rao not be incorporated in the PMS and MS. These recommendations do not imply any lack of support for Rao's proposals; it was simply a question of timing their adoption. Using the revised concepts in the 1983 Labor Force Survey would not allow adequate time for pretesting the new questions, and the required processing system changes would clearly make it impossible to meet the six-month target for publication. The PMS, on the other hand, provides an ideal vehicle for testing and developing the necessary computer edit and tabulation programs.

Based on a recommendation resulting from the author's 1981 mission, NSO decided to drop the use of a "reserve sample" in the 1983 Labor Force Survey. Consequently, it was necessary to spend some time reviewing the design and procedural changes necessary to follow through on this decision (Appendix D). Some work was also done on the survey estimation procedure, also as a followup on matters reviewed in the 1981 mission (Appendix D).

### The Annual Village Survey and the Village Statistical Data Base

The NSO has been working, with some outside support, on the development of a computerized data base for the storage and retrieval of small-area data from the NSO's censuses and surveys. The village will be the basic data unit; village data can be aggregated to provide data for larger units such as subdistricts (tambons) and districts (amphoes). The planned data sources are the 1978 Census of Agriculture, the 1980 Census of Population and Housing, and the Annual Village Survey from 1979 on (excluding 1980, when the survey was not conducted).

In addition to being a potentially valuable source of small-area data, the Village Statistical Data Base, when operational, can provide a flexible and efficient sampling frame for the MS and other NSO surveys. Sample selection operations, which are now manual, can be computerized. This is especially important because the MS design calls for selection of villages with probability proportionate to size, as opposed to the equal probability selection method now used.

It was in this latter context that the author reviewed the current status of the Annual Village Survey and the Village Statistical Data Base. The findings and recommendations are given in Appendix D. In brief, progress on the data base development has been quite slow, significant technical problems remain to be solved, and a comprehensive review of these activities, preferably with outside assistance, is recommended.

### Technical Assistance

#### Assistance Related to the Thai NHSCP Project

Tables 1 and 2 show the requirements for consultancies and training, respectively, for which outside funding was requested in the project proposal prepared in the fall of 1981.

The consultancies shown in items 1 and 2 of Table 1 correspond to the two missions by the author of this report. As explained earlier, circumstances dictated a change in the primary field of activity for the second mission.

The assistance needed in connection with item 3, "Design of demographic, socioeconomic, and health surveys and modules," has been provided by the ESCAP regional advisers, as explained in Chapter II of this report, and also, in part, by the author during this year's mission. It has been recommended to the Secretary General that he continue to call on ESCAP for this and related technical assistance for the project (see Appendix D).

Table 1

REQUIREMENTS FOR CONSULTANCIES AND TRAINING EXPERTS  
REQUESTING OUTSIDE FUNDING, 1981-1986

<u>Field of Activity</u>		<u>Total</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
1. Initial programme planning and design for integrated survey programme*	No.	1	1	-				
	m/m	2	2	-				
2. Design of procedures for evaluation and quality control of survey operations	No.	1	-	1	-			
	m/m	2	-	2	-			
3. Design of demographic, socioeconomic, and health surveys and modules	No.	1	-	1	-			
	m/m	2	-	2	-			
4. Design of food consumption and nutrition surveys	No.	1	-	1	1	-		
	m/m	4	-	2	2	-		
5. Techniques for survey analysis and dissemination	No.	1	-	-	-	1	-	
	m/m	3	-	-	-	3	-	
6. Overall review of project implementation	No.	1	-	-	1	-	1	-
	m/m	2	-	-	1	-	1	-
TOTAL	m/m	15	2	6	3	3	1	

\* This consultancy was already funded by AID, and the assignment was carried out in September-October 1981.

Table 2  
 REQUIREMENTS FOR REQUESTS FOR  
 OUTSIDE FUNDING FOR FELLOWSHIPS, 1982-1986  
 (Institutional Training Leading to Masters Degree)

<u>Field of Study</u>		<u>Total</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Survey	No.	2	1	2	2	1	-
Methodology	m/m (total)	36	3	(12+3)	(3+12)	3	-
Data	No.	2	1	2	2	1	1
Processing	m/m (total)	36	3	(12+3)	(3+12)	3	-
Cartography	No.	1	1	1	1	-	-
	m/m (total)	18	3	12	3	-	-
Demographic	No.	1	-	1	1	1	-
Statistics	m/m (total)	18	-	3	12	3	-
Economic	No.	1	1	1	1	-	-
Statistics	m/m (total)	18	3	12	3	-	-
TOTAL	m/m (total)	126	12	57	48	9	-

The project proposal calls for NSO to conduct a food consumption and nutrition survey in 1984, as a joint undertaking with the Ministry of Public Health and nutrition researchers at Mahidol University. Since NSO has had little experience with surveys of this nature, item 4 of Table 1 provides for two 2-month consultancies to assist NSO and the collaborating agencies in preparing for the survey. Prior to and during this year's mission, the author discussed this requirement with the AID Office of Nutrition, Bureau of Science and Technology; with the Chief of the Health, Nutrition and Population Division, USAID/Thailand; and with the top staff of NSO. Background information was obtained on nutrition surveys previously conducted in Thailand and on statistics currently being compiled in connection with large-scale weight and height measurement programs. It was determined that the Economic Surveys Division of NSO would have primary responsibility for this survey, and copies of draft survey manuals provided by the AID Office of Nutrition were made available to the director of that division. During a meeting at NSO on August 25 involving the top staff of NSO, the Chief of the Health, Nutrition, and Population Division of USAID/Thailand, and the author, it was agreed that the next step will be for NSO to consult extensively with the other Thai government agencies involved to determine whether there are important data needs that can be met by a jointly sponsored national household survey. If the NSO and the other agencies agree that such a survey is needed, they will then contact USAID/Thailand to see whether centrally funded assistance for the survey can be made available.

Item 6 of Table 1 provides for a one-month "overall review of project implementation" in 1983. It is the author's view that this consultancy should be made contingent on NSO's successful completion of the data collection for the Pilot Multipurpose Survey. Under this condition, the review would be primarily concerned with the status of preparations for full implementation of the Multipurpose Survey in 1984.

The consultancies scheduled for 1984 and 1985 (Table 1, items 5 and 6) were not specifically discussed during this mission.

The NSO has not succeeded in obtaining funding for any of the graduate-level training requirements specified in Table 2. NSO officials approached the Thai Department of Technical and Economic Cooperation (DTEC) informally about the possibility of funding some of this training from the 1981 AID grant to the Royal Thai Government for training and advisory services relating to "emerging problems of development." DTEC's response was negative and no formal request was submitted. At present, there is little prospect of AID funding for any of this training. The training is urgently needed to compensate for the NSO's losses of trained personnel to universities and the private sector in recent years, and to ensure adequate staff support for the integrated household survey program as it develops. It is recommended that the UNSO seek other donors to support this part of the Thai NHSCP project.

### Other Technical Assistance

During this mission, two other areas were identified where the Thai NHSCP project (as well as other NSO programs) could benefit significantly from technical assistance. These areas were not covered specifically in the project proposal.

The author's final report to the Secretary General of NSO recommended a comprehensive review of the Annual Village Survey and Village Statistical Data Base programs, preferably with outside participation by one or more experts in systems design and data base management (Appendix D). Such a review might, in turn, indicate a need for further advisory services to support the development of these systems to the point where their potential value is realized. A fully operational village data base would represent a quantum increase in the amount of small-area data readily available for development planning and assessment, and would significantly increase the return on the NSO's resources invested in the conduct of censuses and surveys.

A second area where some assistance would be likely to yield a high return is in training some of the NSO staff other than those working in the Data Processing Division to use the Data Processing Center's interactive computer facilities. This is discussed in Appendix D. Technical assistance could be of two kinds: (1) provision of outside experts to help NSO plan and conduct an in-house course to train selected staff members in the use of appropriate computer languages, statistical software packages, and the on-line terminals; and (2) for a few of the most promising trainees, funding of training abroad in special short courses such as the Social Science Data Analysis Program at the University of Michigan or the Summer School in Social Science Data Analysis at the University of Essex (U.K.).

It is the author's opinion that both of these areas clearly fall within the scope of USAID's Demographic Data for Development Project, and that funding of the required technical assistance from that project would be appropriate.

#### IV. SUMMARY AND RECOMMENDATIONS

#### IV. SUMMARY AND RECOMMENDATIONS

##### Summary

In spite of some unavoidable delays in implementing the integrated household survey program, the NSO has made substantial progress and has demonstrated its willingness to commit the necessary resources to conduct a full-scale pilot test of the Multipurpose Survey, which is the key component of the program. The Pilot Multipurpose Survey is scheduled for January 1983 and, if its outcome is favorable, the national MS will begin in January 1984. In the meantime, several of the design and methodological improvements recommended for the MS are being adopted and tested in ongoing surveys. Thus, the overall prospects for the success of the Thai NHSCP project are favorable and justify continued support.

The project's requirements for advisory services have been adequately met so far by a combination of USAID central funding and use of ESCAP regional advisers assigned to the NHSCP on a full or part-time basis. To date no funding has been obtained for graduate training requested under the project.

Even though it was not requested in the project proposal, the Thai NHSCP project and other NSO programs would benefit significantly from technical assistance in two related areas: development of the Village Statistical Data Base, and training of NSO analysts and statisticians in the use of NSO's interactive computing facilities.

##### Recommendations

1. USAID should continue to support advisory services for the Thai NHSCP project, suitable to the conditions mentioned in Chapter III of this report.
2. The UNSO should urgently seek donors to support the graduate training requirements associated with the project.
3. If requested by NSO, the USAID should provide technical assistance in support of the development of the Village Statistical Data Base and staff training in the use of NSO's interactive computer facilities. Assistance in both areas under the Demographic Data for Development Project would appear to be in keeping with the objectives of that project.

## APPENDICES

Appendix A  
LIST OF CONTACTS

Appendix A  
LIST OF CONTACTS

United Nations

Statistical Office, New York

Mr. Simon Goldberg, Coordinator, National Household Survey  
Capability Programme

Ms. Beverley Carlson

Mr. V.R. Rao

Mr. Vijay Verma

Mr. William Seltzer, Assistant Director for Demographic and  
Social Statistics

Mr. S. Suharto

Statistics Division, Economic and Social Commission for Asia and  
the Pacific (ESCAP), Bangkok

Mr. Ali Sahib, Division Chief

Mr. Andrew Flatt, Chief, Statistics Development Section

Mr. M.V.S. Rao, ILO Regional Advisor on Household Surveys

Mr. S. Raghavachari, Regional Advisor on Civil Registration  
and Vital Statistics

Mr. Gabriel Carceles, Regional Advisor on Social Statistics

Population Division, ESCAP

Dr. Boonlert Leoprapai, Division Chief

ILO

Dr. Ralph Turvey, Chief, Bureau of Statistics

U.S. Agency for International Development

AID/Washington

Mr. Richard Cornelius, Operations Research Division,  
Office of Population

Ms. Judith R. Seltzer, Policy Development Division,  
Office of Population

Mr. Ed Muniak, Population, Health and Nutrition Division,  
Asia Bureau

Mr. Harold Rice, Office of Technical Resources, Asia Bureau

Mr. John McKigney, Office of Nutrition, Bureau for Science and  
Technology

USAID/Thailand

Dr. Terry Grandstaff, Social Science Advisor

Mr. David Oot, Chief, Health, Nutrition and Population Division

Ms. Kanikar Sooksame, Social Science and Demographic Analyst

National Statistical Office, Thailand

Mr. Ambhorn Arunrangsi, Secretary General

Dr. Niyom Purakam, Deputy Secretary General

Mr. Ithi Swunkatat, Deputy Secretary General

Population Surveys Division

Ms. Wiwit Siripak, Director

Ms. Chintana Pejaranonda, Head, Demographic Analysis Section

Ms. Sasithorn Jotikasthira, Chief, Labor Force and Education  
Survey Branch

Mr. Jain Niroottinanont, Head, Education and Social Statistics Section

Mr. Nantit Supamongkon, Project Director, Health and Welfare Survey

Ms. Yaovasri Likanasadh, Head, Labor Force Survey Section

Ms. Pontip Sriwatcharin, Education and Social Statistics Section

#### Economic Surveys Division

Ms. Duangchai Poomchusri, Director

Ms. Varai Woramontri, Chief, Socio-Economic Statistics Branch

Ms. Boonrut Lacaddee, Head, Agriculture Statistics Section

Ms. Raksanga Saengtong, Agriculture Statistics Section

#### Statistical Techniques Division

Ms. Phensri Suwansingha, Director

Ms. Annie Skunasingha, Chief, Planning and Coordination Branch

Ms. Eiamchan Premyothin, Chief, Statistical Methodology Branch

Mr. Seri Laitragool, Head, Data Evaluation and Analysis Section

Mr. Sue Lo-Utai, Head, Sampling Section

Ms. Maneerat Plipat, Sampling Section

#### Field Operations Division

Mr. Kanet Chantarasup, Director

Mr. Somphong Dimichai, Head, Quality Control Section

Mr. Worawut Lewboonthawatapai, Head, Economic Statistics Coordination Section

Mr. Kajit Praditjulin, Head, Population Statistics Coordination Section

Data Processing Center

Mr. Thavisakdi Thangsuphanich, Director

Mr. Arcom Niemuthai, Chief, Data Processing Operations Branch

Mr. Pichai Saiyasombapi, Head, Data Preparation and Data Entry Sections

Ms. Woranut Tritipayabut, Chief, Data Processing Techniques Branch

Ms. Vilaiwan, Head, Data Base Control Section

Ms. Panee Damrongmongkolgul, Data Base Control Section

Ms. Supira Puangkanok, Head, Computer Service Section

Mr. Angsuman Sunalai, Head, Systems Analysis and Programming Section

Provincial Statistical Offices

Provincial Statisticians for Kamphaeng Phet, Nakhon Sawan, Lamphan, Chiang Mai, Chachoengsao, Rayong

Other Thai Government Officials

Professor Bundhit Kantabutra, formerly Secretary General, National Statistical Office

Mr. Aram Aiem-Arun, Deputy Governor, Chiang Mai Province

U.S. Bureau of the Census, International Statistical Programs

International Statistical Programs Center

Mr. Karl K. Kindel, Chief

Dr. Ken Bryson, Chief, Training Branch

Ms. Nancy McGuir, Training Branch (in Bangkok)

International Demographic Data Center

Dr. Peter Way, Statistician (in Bangkok)

Others (in Bangkok)

Dr. Lee-Jay Cho, Director, East-West Population Institute,  
East-West Center

Dr. John Knodel, University of Michigan

Appendix B

CONTENT FOR MULTIPURPOSE SURVEY

## Appendix B

### CONTENT FOR MULTIPURPOSE SURVEY

To: Dr. Niyom Purakun  
Deputy Secretary General, NSO

August 18, 1982

From: Thomas B. Jabine  
NHSCP Consultant

Subject: Content for Multipurpose Survey

After a series of meetings with members of the Population Surveys, Economic Surveys and Statistical Techniques Divisions, and taking into account what was learned from the pretest earlier this year and from informal testing during last week's field trip, agreement has been reached on a proposal for the content of the core and supplemental modules for the Multipurpose Survey (MS). The division representatives have requested that I present this proposal to you with the recommendation that it be put before the NHSCP Working Group for consideration.

#### A. General considerations:

Some general objectives and limitations were agreed on for the MS; the development of the proposed content was carried out subject to these requirements. They are:

1. The data collection and processing systems for the MS should be designed to expedite the production of results from the core modules, including especially the labor force data, at the end of each quarter. Supplemental modules will, in general, have second priority, except that the module on rice production and stocks may require special priority.
2. To expedite data processing, all modules should be designed so as to limit the need for extensive manual processing. Imputation and edit correction procedures should be automated as much as possible.
3. The average duration of interview per household should be limited to 45 minutes. The number of questions in each module and the total number of supplements for each quarter should be limited accordingly.
4. Content items should be only those that can be collected with reasonable accuracy from a single adult respondent in each household. Information on attitudes or other topics requiring interviews with all or specified

household members should be collected in independent or separate followon surveys. Some exceptions to this rule may be needed for the annual cash income supplement.

B. Core modules

The core modules will have the following characteristics:

1. They will be included in the MS questionnaire for each quarter.
2. They will only be changed or modified in exceptional circumstances, since comparability of data overtime is important to the utility of the MS results. This means that a special effort should be made to have these modules, especially the labor force module, reviewed by major users before the start of the MS.
3. Items common to the MS and the 1980 Census of Population and Housing should retain the definitions, question formats and response categories used in the Census unless there are clear reasons for changing them.

There will be 4 core modules:

- C 1 - Identification. This module will contain the identifiers and other data needed for field work, geographic coding, imputation for non-response, weighting and variance estimation.
- C 2 - Demographic. This module will contain items such as age, sex, marital status and other similar items. These will be used primarily as classifiers for tabulations based on the other modules. Age and sex will also be used in connection with weighting procedures.
- C 3 - Labor force. This module will have a standard set of questions on labor force activity. Any labor force items not asked in every quarter will be made part of one or more supplemental modules.
- C 4 - Housing characteristics. This module will have a small number of housing items, selected mostly from those used in the 1980 Census. Items on possession of durable goods will be included. These items, along with selected population items, provide a useful basis for evaluating the general economic level (standard of living) of each household. In addition, some of them will be

useful for analyses together with data from supplemental modules, for example, of relationships between water supply and health status. Expanded housing information, equivalent to that obtained in the 1980 Census, will be wanted in 1986 (probably the 3rd year of the MS). This could be done in at least two ways: (1) Include the additional housing items in a supplemental module for the 3rd and 4th quarters of year 3, or (2) expand the core housing module for year 3 only, covering all 4 quarters.

#### C. Supplemental modules

Data for each supplemental module will be collected in conjunction with the core modules during one or more quarterly rounds of the MS. Some supplements will be included for one or more quarters each year; others will be included less often than once a year.

Chart A shows the proposed schedule for supplements over the first five-year period of the MS. Specific calendar years are not identified; however, the consensus of those who have helped to develop this proposal is that the goal should be to begin in the first quarter of 1984. Further information for each of the supplements follows Chart A.

It will be seen in Chart A that no supplements are scheduled for the fourth quarter of the fourth year. Probably some additional needs for data that can be accommodated by the MS will have been identified before then. Some quarters have only one supplement scheduled; it may be possible to add second supplements in some of these quarters.

**Best Available Document**

CHART A - FIVE-YEAR SCHEDULE FOR SUPPLEMENTAL MODULES

Year	Quarter	Supplements	
		No. 1	No. 2
1	1	S1 - Rice prod.& stocks	S2 - Cash income
	2	S1 - Rice prod.& stocks	—
	3	S3 - Mass media	S4 - Children & youth
	4	S3 - Mass media	—
2	1	S1 - Rice prod.& stocks	S2 - Cash income
	2	S1 - Rice prod.& stocks	S5 - Health & welfare
	3	S4 - Children & youth	—
	4	—	S5 - Health & welfare
3	1	S1 - Rice prod.& stocks	S2 - Cash income
	2	S1 - Rice prod.& stocks	S5 - Cultural activities
	3	S4 - Children & youth	—
	4	—	S5 - Cultural activities
4	1	S1 - Rice prod.& stocks	S2 - Cash income
	2	S1 - Rice prod.& stocks	S7 - Energy use
	3	S4 - Children & youth	—
	4	—	—
5	1	S1 - Rice prod.& stocks	S2 - Cash income
	2	S1 - Rice prod.& stocks	S5 - Health & welfare
	3	S4 - Children & youth	—
	4	—	S5 - Health & welfare

\* May include supplemental housing module, see page 3

- S1 - Rice production and stocks. During the first two quarters of every year, that is, during the harvest period, a set of questions on rice production and stocks in the hands of farmers will be included. Results from a separate survey of rice mills would be added to the results from this supplement to provide estimates of total rice stocks.
- S2 - Cash income. This supplement will be done every year in the first quarter. It will be done in the municipal areas and possibly in the sanitary districts. Results from the Socio-Economic Surveys show that about 90 percent of total income in municipal areas is cash income. This supplement may require an exception to the general rule that all information in the MS should be collected from a single household respondent. To obtain accurate information on income from own business, it will often be necessary to talk to the household member in charge of that business.
- S3 - Mass media. This will cover television viewing, radio listening, newspaper readership and related items.
- S4 - Children and youth. This is considered sufficiently important to do in one quarter every year. It will be done in the third quarter, just after the start of the regular school year. Basic items will be included every year, others may vary from one year to the next.
- S5 - Health and welfare. This module will be included in the second and fourth quarters of years two and five. Like the children and youth module, this one will have certain basic items that are always included and others that vary from quarter to quarter. Information on children ever born will be included as a basic item.
- S6 - Cultural activities. This module will have questions on cultural, recreational and sports activities.
- S7 - Energy use. This module will cover types and amounts of fuels used in the household and for motor vehicles, prices paid, and ownership of energy using appliances and vehicles (to the extent not included in core module C4).

D. Implications for Pilot Multipurpose Survey (PMS)

If this proposed schedule for the MS is accepted, the priorities for testing in the PMS will become clear. Two different questionnaires should be tested, namely, those needed for the first and third quarters of the first year of the MS, i.e.:

Version 1 - Core, plus rice production and stocks,  
plus cash income

Version 2 - Core, plus mass media, plus children and youth

Some members of the NHSCP Working Group have asked that I now prepare a proposed schedule of activities for the Pilot Multipurpose Survey. I am working on this and will send it to you shortly.

Appendix C

SCHEDULE OF ACTIVITIES FOR PILOT MULTIPURPOSE SURVEY

## Appendix C

### SCHEDULE OF ACTIVITIES FOR PILOT MULTIPURPOSE SURVEY

August 31, 1982

To: Dr. Niyom Purakam  
Deputy Secretary General  
National Statistical Office

From: Thomas B. Jabine  
NHSCP Consultant

Subject: Schedule of Activities for Pilot Multipurpose Survey

Attached for your consideration is a proposed schedule of activities, showing dates and divisions responsible for each step, covering the preparatory and data collection phases for the Pilot Multipurpose Survey. This schedule has been reviewed by each of the 5 NSO divisions involved, and revised in response to their comments. To the best of my knowledge, they are all agreed on the proposed schedule.

You will note that some of the activities should begin almost immediately in order to meet the completion dates. Therefore, it is recommended that you convene the NHSCP Working Group at the first possible opportunity to review and adopt the schedule, with whatever changes are considered necessary.

I would also like to call to your attention that the attached schedule does not cover data processing activities. May I suggest that you immediately assign one person to prepare a draft schedule of similar scope and detail, covering the data processing activities for the Pilot Multipurpose Survey. The draft should be reviewed by all divisions, revised as necessary, and put before the NHSCP Working Group for approval.

Schedule of Activities for the Pilot  
Multipurpose Survey

**PART A: General explanation**

This proposed schedule covers the field operations and the preparatory activities leading to them for the Pilot Multipurpose Survey (PMS) to be conducted in changwads Satun and Khon Kaen. A separate schedule will be needed for the preparation of a data processing plan, detailed specifications and the execution of processing operations. Note, however, that the present schedule provides for review by the Data Processing Center of draft questionnaires and other materials to be used in the PMS.

The schedule is divided into 6 parts:

- Part B - Field operations
- Part C - Sample design and selection
- Part D - Forms development
- Part E - Field manuals development
- Part F - Training plan and materials
- Part G - Evaluation plan and materials

The field operations are listed first, since their schedule determines the necessary completion dates for the preparatory activities.

For each activity a completion date is shown. The starting date is shown only where the start of the activity depends on completion of a prior step. If no starting date is shown, the activity can start immediately.

In indicating the units responsible for development and review of various items, the following abbreviations are used:

- DSG - Deputy Secretary General responsible for the NMSOP project
- DPD - Data Processing Division
- ESD - Economic Surveys Division
- FD - Field Division
- PSD - Population Surveys Division
- STD - Statistical Techniques Division

It will be the responsibility of the division chiefs to delegate particular assignments within their divisions and to insure that completion dates are observed.

It is recommended that the NHCOP Working Group meet at least once every 2 weeks, with representatives from all of the divisions involved. The primary purposes of these meetings would be (1) to discuss any problems in observing scheduled completion dates and to make such adjustments in the schedule as may prove necessary, and (2) to resolve any disagreements between divisions on procedural matters.

## PART B: Field operations

(All dates shown are in 1983)

Activity		Dates	
Number	Description	Start	Completion
B1	Training of changwad statistician	Jan. 3	Jan. 4
B2	Training of enumerators for listing	Jan. 5	Jan. 7
B3	Listing	Jan. 8	Jan. 14
B4	Selection of sample housing units	Jan. 11	Jan. 21
B5	Training for enumeration	Jan. 17	Jan. 21
B6	Enumeration	Jan. 22	Feb. 5
B7	Field activities for evaluation	Jan. 4	Feb. 13

## Remarks

Item B1 As an alternative or in addition, it may be prepared to have both changwad statisticians come to Bangkok for training together at an earlier date.

Item B1, B2 and B5 For determination of who will conduct the training, see Part F. The changwad statistician should attend the training sessions for listing and enumeration.

Item B3 In each changwad, listing will be required for 12 blocks in municipal areas, 6 villages in sanitary districts and 16 villages outside of sanitary districts.

Item B4 Sampling should be done by the changwad statistician and reviewed by a representative of the STD.

Item B6 In each changwad, the number of households will be approximately:

Questionnaire	Mun. Area	San. Dist.	Other
Version 1	240	120	240
Version 2	240	120	240
Total	480	240	480

Versions 1 and 2 of the questionnaire will have the same core modules, but different supplements.

Item B7 More precise dates will depend on the particular evaluation procedures chosen. See Part G.

## PART C: Sample design and selection

(All dates shown are in 1982)

Activity		Divisions responsible	Dates		Remarks
Number	Description		Start	Completion	
SAMPLE DESIGN					
C 1.1	Prepare draft description of sample design	STD		Sept.15	General outlines have already been approved
C 1.2	Review draft description	ESD, FD, PSD	Sept.16	Sept.24	
C 1.3	Revise draft	STD	Sept.27	Oct.1	
C 1.4	Final approval	DSG		Oct.8	
FRAME PREPARATION					
C 2.1	Municipal areas	STD	Started	Sept.16	Prepared manually  Will use computer records from 1981 Village Survey
C 2.2	Villages: Satun	STD	Started	Sept.16	
C 2.3	Villages: Khon Kaen, specifications	STD		Sept.16	
C 2.4	Villages: Khon Kaen, computer listing	DPD		Oct.15	
C 2.5	Villages: Khon Kaen, code and check computer listing	STD	Oct.8	Oct.29	
SAMPLE SELECTION					
C 3.1	All municipal areas and Satun Villages	STD	Sept.19	Oct.4	If time permits, the selection should be made on the computer, using STD specification.
C 3.2	Khon Kaen villages	STD	Nov.1	Nov.12	
MAP PREPARATION					
C 4	Preparation of maps for blocks, villages in sanitary districts, and other large villages.	STD	Oct.5	Dec.17	Field work may be needed in a few cases.

## PART D: Forms Development

(all dates are 1982)

Number	Activity Description	Divisions responsible	Dates		Remarks
			Start	Completion	
STANDARD IDENTIFIERS					
D 1.1	Prepare proposal for codes to identify all sample blocks villages, housing units, households and persons	STD		Sept.15	Codes should contain all information needed to determine weights for estimation and sampling errors, and to tabulate by region and type of area.
D 1.2	Review proposed codes	DFD, ESD, FD, PSD	Sept.16	Sept.29	
D 1.3	Revise and distribute to all divisions	STD	Sept.30	Oct.4	
SAMPLE ASSIGNMENT FORM					
E 2.1	Prepare draft for review	STD		Oct.1	All forms should have provisions for recording the necessary codes.
D 2.2	Review draft	ESD,FD,PSD	Oct.4	Oct.15	
D 2.3	Revise draft, ready for printing	STD	Oct.18	Oct.25	
LISTING FORM					
D 3.1	Prepare requirements statement	PSD		Sept.10	Statement should describe purposes and uses of the form, including what tabulations, if any, will be made from it, and what samples will be selected from listings.
D 3.2	Review requirements statement	DFD,ESD,FD, STD	Sept.13	Sept.20	
D 3.3	Revise requirements statement	PSD	Sept.21	Sept.24	
D 3.4	Final approval	DSG	Sept.27	Oct.1	
D 3.5	Prepare draft form	PSD		Oct.8	
D 3.6	Review draft form	DFD,ESD,FD, STD	Oct.11	Oct.22	
D 3.7	Revise draft, ready for printing	PSD	Oct.25	Oct.29	
RETAIN PHOTOCOPIES FOR INTERNAL USE WHILE FORM IS BEING PRINTED.					

Activity		Divisions responsible	Dates		Remarks
Number	Description		Start	Completion	
<b>QUESTIONNAIRES</b>					
D 4.1	Prepare requirements statement for each <u>module</u>	See note 1 below		Sept.17	The statements should list the specific data items (not questions) to be included, and, where needed, the categories to be used in tabulations. Outlines of key tables should be included, if possible. Expected principal users should be contacted to discuss requirements, and should be identified in statements.
D 4.2	Review as needed	"	Sept.20	Sept.24	
D 4.3	Revision of requirements statements	"	Sept.27	Oct.1	
D 4.4	Final approval, distribution to all divisions	DSG	Oct.4	Oct.8	
D.4.5	Informal testing of modules	See note 1 below		Oct.22	Optional for each module. Some testing has already been done.
D 4.6	Prepare proposal for format to facilitate data entry	DPD		Sept.10	
D 4.7	Review format proposal	ESD,FD,PSD STD	Sept.13	Sept.24	
D 4.8	Revise proposal and distribute to all divisions	DPD	Sept.27	Oct.1	This format must be followed by each division responsible for drafting modules.
D 4.9	Prepare draft of module	See note 1 below		Oct.29	
D 4.10	Review draft of module	"	Nov.1	Nov.13	
D 4.11	Revise module	"	Nov.16	Nov.20	
D 4.12	Combine modules to obtain Questionnaires 1 and 2	PSD	Nov.23	Dec.3	Check for duplication of items, develop uniform numbering system, add transition statements, etc.
D.4.13	Review of Questionnaires 1 and 2	DPD,ESD,FD, STD	Dec.6	Dec.10	
D 4.14	Revise Questionnaires 1 and 2, ready for printing	PSD	Dec.13	Dec.17	Retain photocopies for internal use while questionnaires are being printed.

Note 1 - Responsibility for preparation and review of individual modules will be as follows:

Module	Preparation (Steps 4.1,4.3,4.5,4.9,4.11)	Review Step 4.2	Review Step 4.10
G1 Identification	STD	DPD,ESD,FD,PSD	DPD,ESD,FD,PSD
G2 Demographic	PSD	ESD	DPD,ESD,FD
G3 Labor force	PSD	ESD	DPD,ESD,FD
G4 Housing	PSD	ESD	DPD,ESD
S1 Rice production and stocks	ESD	PSD	DPD,FD,PSD
S2 Cash income	ESD	PSD	DPD,FD,PSD
S3 Mass media	PSD	ESD	DPD,ESD,FD
S4 Children & Youth	PSD	ESD	DPD,ESD,FD

## PART E: Development of Field Manuals

(all dates are in 1982)

Activity		Divisions responsible	Dates		Remarks
Number	Description		Start	Completion	
CHANGWAD STATISTICIAN'S MANUAL					
E 1.1	Prepare draft	STD		Oct.15	This manual will cover sampling procedures, especially the selection of sample housing units from listings, and supervisory review of field work and completed questionnaires.
E 1.2	Review draft	ESD,FD,PSD	Oct.18	Oct.29	
E 1.3	Final revision, ready for printer	STD	Nov.1	Nov.12	
LISTING MANUAL					
E 2.1	Prepare draft	PSD		Oct.29	The definition of "housing unit" for use in listing and sampling should be prepared by STD, in consultation with the other divisions.
E 2.2	Review draft	ESD,FD,STD	Nov.1	Nov.12	
E 2.3	Final revision, ready for printer	PSD	Nov.15	Nov.26	
ENUMERATOR'S MANUAL					
E 3.1	Prepare draft sections	See remarks		Nov.5	ESD will prepare sections covering <del>housing</del> cash income, and rice production and stocks. PSD will prepare all remaining sections.
E 3.2	Combine draft sections	PSD	Nov.8	Nov.12	Make terminology, numbering, etc. consistent.
E 3.3	Review draft	ESD,FD,PSD, STD	Nov.15	Dec.10	
E 3.4	Final revision, ready for printer	PSD	Dec.13	Dec.17	

2. Analyze data on time and number of callbacks required for listing and enumeration. Latter should be analyzed separately for Questionnaires 1 and 2.
3. Analysis of outcome of attempted interviews. Calculate completion rates from sample assignment sheets.
4. Analysis of item non-response on completed questionnaires.
5. Analysis of interviewing procedures and problems. Methods include observation of interviews by central staff and tape recording of interviews.
6. Asking respondents at close of interviews to comment on items that were difficult to understand, difficult to respond to, or sensitive.
7. "Debriefings" of enumerators following completion of listing and enumeration periods.
8. Written reports (possibly using structured questionnaires) by enumerators, changwad statisticians and observers.

C. Formal evaluation studies

1. Calculation of components of sampling error, to analyze "design effect" for various items, and the effects of the new sample design.
2. Reinterviews
  - a. Using same procedures as initial interview.
  - b. For selected items, interviewing each adult member of household separately.
3. Record checks. Comparison of interview results with relevant data from other sources, such as village headman's records, school records, employers' records of hours worked, wages and benefits.
4. Use of direct measurement. For example, measuring volume of rice stocks on hand.

PART F: Training Plans and Materials

(all dates are in 1982)

Number	Activity Description	Divisions responsible	Dates		Remarks
			Start	Completion	
<b>CHANGWAD STATISTICIANS TRAINING</b>					
F 1.1	Prepare draft training plan	STD		Oct.22	<p>Note 1 - The draft training plan for each of the 3 training sessions should include:</p> <ul style="list-style-type: none"> <li>- An outline of the topics to be covered and approximate time to be allotted to each (See Part B for number of days in each session)</li> <li>- Which divisions will be responsible for <u>conducting</u> the training and, if more than one per session, which topics each will cover.</li> <li>- List of written materials such as practice exercises, scripts for mock interviews, trainer outlines, etc. that will be needed, and which division should be responsible for <u>preparing</u> each item.</li> </ul>
F 1.2	Review draft training plan	ESD,FD,PSD	Oct.25	Oct.29	
F 1.3	Prepare drafts of all training materials	See Note 2	Nov.1	Nov.19	
F 1.4	Review draft training materials	ESD,FD,PSD, STD	Nov.22	Dec.6	
F 1.5	Revise draft materials, ready for print	See Note 2	Dec.7	Dec.13	
<b>TRAINING FOR LISTING</b>					
F 2.1	Prepare draft training plan	PSD		Oct.22	<p>Note 2 - Responsibility for preparation and revision of specific training materials (steps 3 and 5 for each session) will be with the divisions indicated in the agreed-on training plan.</p>
F 2.2	Review draft training plan	ESD,FD,STD	Oct.25	Oct.29	
F 2.3	Prepare drafts of all training materials	See Note 2	Nov.1	Nov.19	
F 2.4	Review draft training materials	ESD,FD,PSD, STD	Nov.22	Dec.6	
F 2.5	Revise draft materials, ready for print	See Note 2	Dec.7	Dec.13	
<b>TRAINING FOR ENUMERATION</b>					
F 3.1	Prepare draft training plan	PSD		Oct.29	
F 3.2	Review draft training plan	ESD,FD,STD	Nov.1	Nov.5	
F 3.3	Prepare drafts of all training materials	See Note 2	Nov.8	Dec.3	
F 3.4	Review draft training materials	ESD,FD,PSD, STD	Dec.6	Dec.17	
F 3.5	Revise draft materials, ready for print	See Note 2	Dec.20	Dec.24	

PART G: Evaluation Plan and Materials

This aspect, although extremely important is treated in less detail than the other aspects of planning and data collection for the survey. A list of possible activities is included; these should be reviewed and priorities established.

In broad terms, the schedule should be as follows:

- Step 1 Prepare draft evaluation plan for PMS. Responsible: STD.  
Completion date: October 15.
- Step 2 Review draft plan. Responsible: DPD, ESD, FD, PSD.  
Start, October 18; completion, October 29.
- Step 3 Approval of plan. Responsible: DSG. Completion date November 5.
- Step 4 Develop and carry out plan for each separate evaluation activity.  
Responsible: Various divisions as determined in overall plan.  
Dates: as appropriate for each activity.

The overall plan (Step 1) should include a brief description of the purpose and proposed method for each separate activity. It should also propose which division should be responsible for each activity and which other divisions should participate, either as reviewers or in carrying out certain steps.

The following list of possible activities is given by way of example. It is not necessarily intended that all of these activities be included in the plan; on the other hand there may be other useful activities that should be included. This list covers only the preparatory and data collection phases of the PMS; further evaluation should be planned for the data processing phase.

- A. Quality control activities
  - 1. Review of listing
  - 2. Review of completed questionnaires
- B. Capture and analysis of data on survey operations.
  - 1. Evaluation of training sessions. Possible methods include studies of performance on practice exercises and quizzes, and evaluation questionnaires to be filled by enumerators receiving training.

Appendix D

FINAL REPORT TO THE SECRETARY GENERAL OF NSO

## Appendix D

### FINAL REPORT TO THE SECRETARY GENERAL OF NSO

September 1, 1982

To: Mr. Ambhorn Arunrangsi  
Secretary General  
National Statistical Office of Thailand

From: Thomas B. Jabine  
NESCP Consultant

Subject: Final Report

This is the final report of my work with the National Statistical Office during the period July 8 to September 3, 1982. This consultancy was carried out under the auspices of the UN National Household Survey Capability Programme, and was funded by USAID.

My formal instructions were to assist the NSO to develop quality control and evaluation procedures for the integrated system of household surveys included in the NESCP Thailand project. Based on my initial meeting with you and your two deputies on July 8, the nature of this assignment was changed and I have spent the greatest part of my time helping the NSO staff to develop plans for a pilot test of the proposed Multipurpose Survey in 2 changwads. For this purpose I have consulted intensively and received the full cooperation of NSO staff in all of the divisions involved at this stage: Data Processing, Economic Surveys, Field, Population Surveys, and Statistical Techniques Divisions.

In addition, as requested by various persons, I have spent some time reviewing other NSO programs, including especially the following:

1. The Labor Force Survey, with emphasis on the 1982 and 1983 surveys.
2. The Annual Village Survey and the plans for the Village Survey Statistical Database.
3. Estimation and variance estimation procedures for the 1980 Census of Population and Housing 2 percent preliminary sample.

I would like to express my appreciation for the gracious reception and full cooperation that I have received from all NSO employees with whom I have worked during these two months. I am especially grateful to members of the Statistical Techniques Division: Ms. Phensri Suwansingha, Director, Ms. Eiamchan Premyothin, who acted as general coordinator for my activities and was especially helpful in arranging for two field trips, and Ms. Manerat Pliapat who worked closely with me during the entire mission. Very little could have been accomplished without their help.

Copies of this report will be given to AID and to the UN Statistical Office in connection with my final reports to them. Should you consider it worthwhile, I would be pleased to have copies circulated to members of your staff.

#### Documentation

Many of my specific recommendations are included in memoranda and notes which I have prepared during this period and distributed to the persons most directly concerned. Following is a list of these items:

1. Memorandum dated 7/28/82 to Ms. Wivit Sirapak and Ms. Duangchai Poomchusri: "Some proposals concerning income and labor force items for the Multipurpose Survey"
2. Memorandum dated 8/18/82 to Dr. Niyom Purakam: "Content for Multipurpose Survey"
3. Memorandum dated 8/31/82 to Dr. Niyom Purakam: "Proposed Schedule of Activities for the Pilot Multipurpose Survey"
4. Memorandum dated 7/21/82 to Ms. Annie Skunasingha and Mr. Sue Lo-Utai: "Preparation of sampling frames for Pilot Multipurpose Survey"

5. Notes: Field Trip Findings: Aug. 2-5, 1982
6. Notes on Field Trip to Changwads Chachoengsao and Rayong: Aug. 23-24, 1982
7. Memorandum dated 8/10/82 to Ms. Phensri Suwansingha: "1980 Census of Population and Housing Preliminary Sample"
8. Handwritten memorandum dated 8/13/82 to Mr. Sue Lo-Utai: "Variance Formula for 1980 Census Preliminary Sample"

Because of their particular importance, copies of documents 2 and 3 are attached to this report. Copies of other items may be obtained from the Director of the Statistical Techniques Division.

In addition to the above, I have arranged for an English translation of the Enumerators Manual for the 1982 Labor Force Survey, using expense funds provided in connection with my mission. Copies have been made, and should be useful for other consultants and for international users of data from the Labor Force Survey.

#### Findings and recommendations

##### 1. Pilot Multipurpose Survey

It appears to be generally agreed by the staff that the Pilot Multipurpose Survey should be conducted in two changwads early next year (1983) and that, if justified by the results, the national Multipurpose Survey should begin at the start of 1984.

The Pilot Multipurpose Survey (PMS) is being planned as a "dress rehearsal", that is, all operations, including data processing, will be carried out under conditions resembling as closely as possible those that will apply to the national Multipurpose Survey (MS). In addition to the basic questionnaires, a full set of forms, manuals, training materials, and processing specifications and procedures will be prepared and tested. This is an excellent strategy; if it is fully carried out, NSO should be well-prepared to begin the national Multipurpose Survey in 1984.

In order to decide which specific questionnaire modules to test in the PMS, it was first necessary to agree on specific core and supplemental modules for the MS, and also on a schedule for inclusion of the various supplemental modules. After consultation with the subject-matter divisions, a content proposal was drafted and forwarded to the Project Director, Dr. Niyom Purakam (Document No.2). Following this, a detailed schedule of activities for the preparatory and data collection phases of the PMS was drafted. This was reviewed by all divisions involved, modified accordingly, and forwarded this week to the Project Director (Document No.3).

In addition to the above, considerable attention has been given to development of the sampling plan and of the questionnaires for selected modules. A sample design was developed and approved informally by the Project Director. Work has started on development of the sampling frame for the two changwads and selection of the sample blocks and villages. With respect to questionnaire modules, the modules pretested early this year were reviewed, and revised versions of selected modules were tested by several NSO employees during field trips on August 2-6 and August 23-24. The overall content development is now at a fairly advanced stage.

To ensure successful prosecution of this activity, I should like to offer the following recommendations:

- a) That the NHSCP Working Group be convened at the earliest possible date to attempt to reach final agreement on the MS content and the PMS schedule, based on Documents 2 and 3, with any changes considered appropriate.

- b) That the NHSCP Working Group meet at least every 2 weeks from now until the start of the field work for the FMS to check the status of scheduled activities and resolve any problems that may arise.
- c) That one person be designated to act as "Coordinator," keeping in touch with all of the divisions about the status of their assigned activities, in order to keep the Project Director and the Working Group informed of progress and problems.
- d) That the village sample frame for Khon Kaen be computerized and that the final sample selection be carried out on the computer, as discussed with representatives of the Data Processing and Statistical Techniques Divisions. While this work could be done manually for the FMS, the efficient selection of a village sample for the MS will require a computerized system, and early development and testing of suitable procedures is essential.
- e) In further development of the questionnaires for the FMS and the MS, primary considerations should be: 1) to keep the average interview time per household as close as possible to the 45 minute target agreed on, and 2) to design the questionnaires for fast processing with a minimum of manual review and processing, once they leave the changwad offices.
- f) To meet these requirements, the following specific recommendations are made for the labor force core module.
  - 1) That all income-related items, including non-cash benefits for wage and salary workers, be eliminated, retaining only the questions needed to get an estimate of average wage rates for wage and salary workers.
  - 2) That all questions relating to secondary jobs and to main occupation and industry in previous 12 months be eliminated. (Note that these and other items eliminated can be covered from time to time in supplements, if desired.)
- g) That one person be assigned, as soon as possible, to prepare a draft schedule of activities for processing the FMS questionnaires. This schedule should be comparable in scope and detail to the schedule already developed for the preparatory and data collection activities. The proposed schedule should be reviewed by all divisions involved, revised, and forwarded to the Project Director for submittal to the NHSCP Working Group.
- h) That appropriate persons from the Economic Surveys and Population Surveys Divisions be briefed by the Data Processing Division, at the earliest possible opportunity, on the capabilities of the data entry equipment (scheduled to be available early next year for use in survey processing), so that they can start to prepare specifications for data entry from the questionnaires for the FMS and other surveys.

## 2. The Labor Force Survey

The Labor Force Survey (LFS) will continue in approximately its present form through 1983. Starting in 1984, if the MS proposal is adopted, labor force data will be collected for every quarter using a core module of the MS questionnaire. Many factors are currently influencing the nature of the LFS:

- The labor force concepts used were reviewed thoroughly earlier this year by the ESCAP regional advisor, Mr. M.V.S. Rao, and he made several recommendations for change.
- Concern of the Thai Government about apparent increases in unemployment as a result of unfavorable economic conditions has recently caused intense interest in LFS results and pressures to make them available more rapidly. Deputy Secretary General Dr. Niyom Surakam has set a goal for completion of processing of each round within 6 months of the completion of enumeration. In this connection, he requested that I consider possible methods of reducing processing time.
- Certain recommendations which I had made last year for technical improvements in the LFS procedures have been adopted and others are still under consideration. In particular, it has been agreed that no reserve sample will be used in 1983.
- The data entry equipment used in the 1980 Census of Population and Housing will be available for household survey processing starting early in 1983.
- Counts from the 1980 Census will soon be available for use in revising the control totals used in LFS estimation.

These, and other considerations lead to the following recommendations:

- a) That all of the following possibilities be considered for reducing processing time:
  - 1) Except for the normal edits by the Data Processing Division, eliminate all on-line reviews of LFS questionnaires once they leave the changwad offices. No questionnaires should be returned to the field subsequently. This comment is not meant to downgrade the importance of quality control of the field work. The Quality Control Unit of the Field Division should play an active role in developing formal procedures and training changwad statisticians and their assistants to do a more effective job of training enumerators and reviewing their work before it leaves the changwad office.
  - 2) For the 1982 LFS processing, make use of existing computer edits and tabulation programs as much as possible. This could probably be accomplished for 1982 by not including the new data on secondary jobs and (in Round 2) on availability for work in the regular tabulations; analysis of these items could be done separately as an off-line operation after the regular processing is completed.
  - 3) For 1983, consider dropping the items on secondary jobs and income, as proposed earlier in connection with the Multipurpose Survey. This would require some reprogramming, but overall should substantially simplify the processing.
  - 4) Plan early for development of procedures for data entry for Round 1 of 1983, using the new equipment. If properly used, this equipment should reduce the frequency of keying errors that require correction during computer edit.

That the necessary adjustments be made to take account of the fact that there will be no reserve sample for the 1983 LFS. These steps have already been discussed with persons in the Population Surveys and Statistical Techniques Divisions. In summary, they include:

- 1) Necessary revisions in LFS Form 2, List of Sample Households.
  - 2) Revisions in those parts of the Listing and Enumeration Manuals that deal with the use of Form 2 and the use of the reserve sample in the enumeration.
  - 3) Development of procedures for making the necessary adjustments for non-response when the questionnaires come in from the field. It is recommended that the procedures be drafted by the Statistical Techniques Division and reviewed by the Data Processing and Population Surveys Divisions.
  - 4) Development of procedures for a systematic review of completion rates, by changwad, after each round, and plans for steps to be taken when the rates are unusually low. This should probably be the responsibility of the Quality Control Section in the Field Division.
- c) That the following steps be taken to improve the estimation procedures:
- 1) The control totals used for the ratio estimates should be revised:
    - separate counts should be obtained, from the 1980 Census, of institutional population by region, age and sex, and these should be subtracted from the overall counts, since the LFS does not cover institutional population.
    - As early as possible, the population projections should be revised to take account of 1980 Census distributions by age and sex. Comparison of the latest projections, on which the present control totals are based, with 1980 Census results showed marked discrepancies in the distributions by age.
    - The number of cells (strata) for which separate age-sex control totals are used should be reduced to 5, i.e., the Bangkok Metropolis and the 4 regions (Central Region excluding Bangkok)
  - 2) If possible, the new estimation formula which I proposed last year should be used in place of the present biased estimation formula for the 1983 tabulations. There are 2 possible obstacles to this:
    - Reprogramming would be necessary and might delay the publication of results beyond the newly established targets.
    - I have just now received the tabulations which I requested early in my mission in order to better understand the results of the comparison of the two estimation procedures that was made for the Bangkok Metropolis. Consequently, I have not had time to fully evaluate the results of the comparison. However, in my judgment, there is no question that the formula ought to be changed if the Statistical Techniques and Data Processing Divisions can develop the necessary specifications and program changes.
- d) That the uses of the concepts of agricultural occupation ~~and agricultural occupation~~ and agricultural season in the Labor Force Survey be carefully reviewed and reconsidered. Based on my field observation and review of the translation of the LFS Enumeration Manual, there appear to be two significant problems:
- The specific time periods in the agricultural season can vary widely according to the area and crops grown. In Ghachoengsao, for example, the first rice crop of the new season is sometimes planted before the last crop of the old season is harvested. This, in effect makes the agriculture season last all year so that farmers would be treated as employed whether or not they

worked in the survey week. In other areas the agricultural season, as defined, may be much shorter. Since some of the labor force categories depend on the relation of the survey reference period to the agricultural season, this makes the interpretation of results quite difficult.

- In collecting data on income from own business, it is apparently intended that agricultural income to be reported in Part 6 be limited to income from crops (including tree crops). Income from livestock, poultry, fishing, etc. is to be covered in Part 5, columns 35 and 36, along with non-agricultural activities. However, the Enumeration Manual gives little or no emphasis to these activities, and I have observed in some interviews that they are likely to be overlooked. Of course, if income items are dropped from the LFS, this will no longer be an issue.

### 3. The Annual Village Survey and the Village Survey Statistical Database

The Annual Village Survey is a unique and important program of NSO. Data from the village surveys are in constant demand by many users. In addition, the current survey results can provide an up to date village sampling frame for NSO's household surveys. The data collection cost is relatively low, although the burden placed on the village headmen should not be overlooked in estimating the total cost.

Unfortunately, the full potential benefits of the village surveys are not being realized, for several reasons:

- The selection of data items for inclusion in the surveys has largely ignored the feasibility, for the village headmen, of reporting on those items. There is little or no pretesting of new items. As a result, some items have been included for which it is unlikely that accurate data can be reported, e.g., item 6 in the 1982 Village Survey, "number of unemployed persons, age 15-50 years (duration of unemployment is more than 4 months/year)"
- The village headmen have received inadequate written instructions and training for the completion of the questionnaires.
- The questionnaires are not well-designed for ease of completion and direct keying of data.
- The review of completed questionnaires by the changwad offices is inadequate; obvious inconsistencies and errors are often not corrected.
- Complete response is not obtained. Questionnaires for the 1981 Survey for a significant proportion of villages have not been received yet by the Statistical Techniques Division, and followup efforts for the 1981 survey have been terminated.
- There have been long delays in starting the data entry from the completed questionnaires. Data entry for the 1981 Survey has not started, except for 5 changwads used in a test of the database system.
- With respect to dissemination, there are several gaps, due primarily to lack of an up to date computerized database. The village headmen themselves do not have copies of their questionnaires to use when asked by local officials and others for similar information. The changwad statisticians transcribe selected items from the questionnaires for their use before sending them to NSO. The Statistical Techniques Division does a full transcription, primarily because they feel this is necessary to serve users who want data for specific villages. Lacking the database, tabulations of aggregates above the village level e.g., by tambol, can only be

obtained manually. Also, none of the existing databases carries identification of the poverty villages which were designated for special attention under the Fifth National Economic and Social Development Plan.

In addition, there are difficult technical problems in database management that have yet to be resolved. These have to do primarily with (1) designing suitable procedures to deal with the changes in village identification and structure that occur in significant numbers each year, and (2) designing the system to permit a reasonable amount of change in content (items on the questionnaire) from year to year.

In view of this situation and the importance of this activity, you may want to consider undertaking a comprehensive and intensive review of the entire village survey and database system, to formulate a plan for development of the system to meet its full potential. For such a review it would probably be desirable to have outside participation by persons who are expert in systems design and database management.

#### 4. Other topics

Following are some other matters which have come up during the past two months, about which I take the liberty of making some suggestions:

- a. The NSO has modern computer facilities, including several interactive terminals which can be used by analysts and others outside of the Data Processing Center to have direct access to databases of interest to them or to develop programs for later running in a batch processing mode. At present, the terminals are used almost exclusively by persons from outside of NSO. In general, the NSO staff do not have the necessary training and experience to use them.

NSO divisions, especially the Economic Surveys, Population Surveys and Statistical Techniques Divisions, would benefit greatly by each having a few of their employees trained to use the interactive facilities, for such purposes as making special tabulations from various household surveys, selecting samples from the village statistical data base, or analyzing components of sampling error. Initial training and experience should be provided "in house" by the Data Processing Center (I am told that about 4 weeks of introductory training would be needed), possibly with outside assistance. A few who show particular aptitude might later receive more advanced training abroad in special short courses such as the Social Science Data Analysis Program at the University of Michigan in the U.S. or the Summer School in Social Science Data Analysis at the University of Essex in the U.K.

The NSO divisions mentioned above are now completely dependent on the availability of programmers in the Data Processing Division for all kinds of routine and special tabulations. As a consequence, they do very little analysis of the survey results. Training of some of their employees to use the interactive on-line facilities would give them much more flexibility and should significantly increase the interest and productivity of their work.

- b. To the best of my knowledge, the NSO does not publish an annual or more frequent "catalogue", either in Thai or English, listing and describing its current publications as well as facilities for special tabulations and "public use" data files that can be made available to other users, and telling readers how to obtain these items. The ultimate objective of all of NSO's work is to serve a large class of data users. If users have no easy way to find out what is available from NSO, its products will not be used as much as they should be. Therefore, I would like to suggest that you review what can be done to make this information more readily available.

Technical assistance

Technical assistance under the NHSCP project was reviewed at the meeting of August 25, 1982 attended by you, your two Deputies and Mr. David Oot of the Thailand USAID Mission. At Mr. Oot's request, I have prepared a memorandum summarizing our discussion at that meeting, and I will give you a copy of that memorandum separately.

In this report, I would like to add only a recommendation that NSO continue to make use of the ESCAP regional advisors who are available for consultation in connection with the NHSCP. In particular, I think it would be useful to invite Mr. M.V.S. Rao and Mr. Gabriel Carceles to review and assist with the further development of questionnaires and tabulation specifications for the Pilot Multipurpose Survey and the national Multipurpose Survey. In addition, you may want to consider asking for consulting assistance by data processing specialists in the preparation of processing procedures for these surveys.