

**Report of ASEAD Project Activities and Outputs
In the Year 2004 (February 2004 – March 2005)
Submitted to the 2nd Joint Coordinating Committee**

9/3/2005

I. Objectives of this paper

Agricultural Statistics and Economic Analysis Development (ASEAD) Project started on July 16, 2003 as a joint undertaking with the Office of Agricultural Economics (OAE), MOAC and Japan International Cooperation Agency (JICA).

This paper is presented to the 2nd Joint Coordinating Committee (JCC) to report the overall ASEAD Project activities during the period of February 18, 2004 to March 9, 2005, covering the period between First JCC* and the Second JCC.

* The 1st JCC discussed and approved the 2004 activities. At the occasion, JICA Survey Team and OAE agreed on the revised PDM and Plan of Operation for the project.

II. Overall summary of activities and results

Overall, the project activities went on quite smoothly and actively. Strong supports by OAE both in terms of counterpart participation and budgeting is one of major driving force of the activities. Another factor is supports from the JICA side in response to the emerging needs in the project sites. Owing to these supports, we saw quite high morale in both Thai and Japanese participants throughout the period.

A few examples of fruitful activities are given below:

- AFSIS training programs, seminars and workshops gave the OAE counterparts greater capability in organizing these programs and teaching the classes.
- Crop cutting surveys opened a way for improved and practicable yield survey methods.
- Survey data processing using the OAE-ROAE network and web pages demonstrated possibility of extremely speedy data entry and reporting.
- Preparation for Agricultural Input-Output Table and related works proceeded under the new long-term expert.
- Enumerator (SKT*) training on the regional office level is establishing a new training pattern.

* SKT stands for Sor-Kor-Tor, Thai acronym meaning “Local Agricultural Economists”, a name given to hired enumerator working for ROAE statistical surveys.

Despite these achievements, we have to overcome some problems encountered in the course of project implementation. Some of them are as follows:

- Number of OAE staffs with ASEAN level capability of teaching training participants is not sufficient yet.
- Quality control measures of data collection and processing activities, particularly by SKT*, are not quite sufficient.
- The regional offices (ROAE) need further improvement of institutional and human capabilities in managing/ controlling survey implementation.

We need to find solution to these problems. The third-year activities of ASEAD will address these problems as much as possible.

III. Activities, outcomes and problems by group

1. *Capacity building of ASEAN country assistance*

(1) Activities

ASEAD is unique because it helps OAE counterparts increase their capacity to provide assistance to ASEAN countries. In other words, the ASEAD Project activities in this field aim at outputs going beyond the national boundary of Thailand. PDM specifies the output as follows:

Human Resources of OAE are developed for data collection methodology, information network system and agricultural economic analysis, including demand-supply forecasting, for ASEAN member countries.

OAE staffs, under advice from JICA expert, organized regional training courses, workshops, national seminars, etc., organized within the framework of the AFSIS project. They include the following programs:

- A Training Course on the Application of Information and Network Technology in Agriculture (June 7-13, 2004 in Beijing) was hosted by Chinese government and all the lectures were provided by a research institute of Chinese Ministry of Agriculture. Several ASEAD counterparts and Mr. Kawasaki joined the training to help its management.
- A National Seminar on Food Security and Information System in Lao PDR was held in Vientiane, Lao PDR on 6-8 July, 2004. It was organized by AFSIS in collaboration with Lao Ministry of Agriculture and Forestry. Several ASEAD project counterparts together with two JICA Experts (Messrs. Miyajima and Kawasaki) joined the seminar and helped them manage the meeting and joined the discussion.
- A Training Course on Statistical Data Analysis and Forecasting was organized at the AFSIT Center in Bangkok. It included regression analysis, commodity forecasting models, use of a software application. Approximately 70% of the training hours were taught by OAE officials, and the rest, by a lecturer from Kasetsart University.
- A Meeting of Directors-General of Agricultural Statistics and Information from ASEAD+3 Countries and the Third AFSIS

Focal Point Meeting were held in Yangon, Myanmar on January 24-26, 2005. Mr. Montol Jeamchareon, Director of CAI and other ASEAD project counterparts together with two JICA Experts (Messrs. Miyajima and Kawasaki) joined the seminar and helped them manage the meeting and joined the discussion.

(2) Outputs

- (a) AFSIS training programs, seminars and workshops gave the OAE counterparts capability in organizing these programs and teaching the classes. By organizing these events 3 to 4 times a year, they built up know-how and experiences necessary for international participation.
- (b) Several C/P are now capable of teaching the international courses. The subjects which many of them can teach include data collection. Some are capable as instructors in information network and economic analysis.
- (c) More importantly, strong desire to take regional leadership for agricultural statistics and information is emerging in counterpart members.

(3) Problems

While we already have some counterparts reaching AFSIS instructor level, the number and area covered by them are not sufficient yet*. There are some more persons in OAE but they are not ASEAD project members. Some counterparts are quite capable in technology and methods but lack English language proficiency.

* The Project Design Matrix (PDM) of the project requires us, by the end of the project period, to have 13 persons capable of teaching ASEAN training, i.e.:

“OAE has below-mentioned number of personnel whose capability permits to conduct AFSIS training courses as instructor.

Data collection methodology: 4 staff members

Data processing & INS: 5 staff members

Economic analysis: 4 staff members”

2. Data collection methodology

(1) Activities

(a) Conduct crop cutting surveys

Crop cutting surveys were conducted for major rice (46 provinces, 2115 samples), Cassava (24 provinces, 1030 samples), Sugar cane (25 provinces, 1596 samples) and Longan* (2 provinces, 200 samples).

Compared with the previous year, the number of crops, provinces and sample farms were considerably increased.

(b) Additional surveys to increase survey data accuracy

For rice, harvest loss survey (44 provinces, 88 samples) and the survey of dyke area (44 provinces, 113 samples) were conducted. For cassava and sugar cane, the project conducted the survey of post-harvest moisture loss and that of dyke area. In addition, starch content was measured for cassava. These activities were intended to arrive at more accurate yield estimates.

(c) Experimental surveys for crop cutting

Experimental test surveys were undertaken for crop cutting of upland rice, maize and pine apples*.

(d) Study of sampling frame construction for crop cutting surveys

The Data Collection Technology Group started studying the method of sampling frame construction for crop cutting surveys. Two alternative means are being studied now: a list frame based on the 2003 Census of Agriculture on the one hand and an area frame using GIS technology.

(e) Construction of list sampling frame from Agricultural Census data

As a part of the task for sampling frame, the project requested Mr. Sasazima, a short-term expert to show us the procedure to develop a list sampling frame for surveys using the 2003 Census of Agriculture obtained from the National Statistics Office (NSO). He constructed the sampling frame for crop cutting surveys for 14 commodities covering the province of Chiangmai. He also succeeded in combining numerical data and image data into a single file.

(f) Analysis of crop cutting survey data

The survey data were stored in a database (excel files) by the

Data Processing Group. These stored data were carefully studied to find possible problems with a view to future improvement.

* Longan crop cutting was planned and conducted by resources of OAE alone. Upland rice and pineapples followed the same pattern. Japanese expert only gave brief advice and on-site guidance to OAE and ROAE staffs concerned.

(2) Outputs concerning survey methodology improvement

(a) Crop cutting manuals

Crop cutting survey manuals were prepared for each crop. They consisted of two volumes, namely, for ROAE Officials and for SKT.

(b) Summary of crop cutting results

The Data Collection and Data Processing groups together summarized the crop cutting survey data with minimum time-delay and immediately provided the results to the CAI Director and other personnel concerned for their consideration. The results indicated that the crop cutting yields were higher for every crop as compared with the official data from OAE. In addition, a number of useful data were obtained concerning cultivating practices of these crops.

Quite high accuracies were obtained for all crop cutting data. It is attributable to sufficient numbers of samples, coupled with additional surveys on harvest losses, dyke areas, etc.

Survey result also indicated that yield data from the crop cutting were somewhat higher than the existing OAE data.

(c) Manual for examination and analysis of survey data

A manual for examination and analysis of crop cutting data was prepared with the purpose of facilitating the counterparts' work of rice crop cutting data summation and analysis.

(d) Training materials for ROAE Officials and SKT on crop cutting methods

A number of training materials for the training courses on crop cutting for ROAE staff and SKT. They included textbooks, power-point presentations, video presentations, etc.

(3) Outputs concerning technical and management capacity of counterparts

(a) Growing recognition of data accuracy and survey effectiveness

The counterparts went through the whole process of crop cutting survey preparation, training, field survey, summation, analysis and presentation, which made them convinced of the survey data accuracy and survey effectiveness. Some data users such as farm product processors and producers' associations also began to recognize the effectiveness of the method.

All over the country, a number of enumerators (SKT) acquired knowledge and experience in crop cutting surveys. This will certainly increase total capacity of OAE-ROAE in conducting these surveys in the future.

(b) Applicability to other surveys

The crop cutting method developed by the project was simple and easy, and the counterparts understood it in a short period of time. It led them apply the method to other commodities such as longan and pineapple.

Counterparts' capacity was improved to the point where they were capable of designing/planning crop cut surveys for other commodities such as longan, pineapple, upland rice, etc. with limited advice from the Japanese expert.

The project also stimulated their interest in field surveys of samples for the construction of an area frame and field measurement survey.

(c) Reviewing the statistical data

The results of crop cutting surveys, which indicated that the crop cutting yield was higher than the past data published by OAE, led CAI to internally review the latter data.

(d) Draft concept of survey method improvement

In October 2004, OAE prepared a draft concept of production survey improvement, which would consist of yield survey by crop cutting and area survey by field enumeration. The concept was explained to the Deputy Minister of MOAC, and through him, to the Prime Minister.

(e) Sampling frame construction

As the result of work by a short-term expert, the project was able to construct the sampling frame for crop cutting surveys for 14 commodities covering the province of Chiangmai. We also succeeded

in combining numerical data and image data into a single file.

It opened the way for the overall list sampling frame for all CAI surveys in the future. The counterpart members have technical capability to do the task if budgetary and other conditions are satisfied.

(4) Problems

(a) Verifying survey data

When the Group summarized and analyzed the data, it found that data from some field survey forms were not carefully verified; they contained errors and abnormal figures. Normally, a wide variety of errors occur in the process of field survey to final survey data for all samples. Eliminating/ minimizing these errors would require ROAE and OAE to set up an effective and speedy data verifying procedure. In the future, data verifying and editing will be even more important because the number of crops surveyed by crop cutting will increase.

(b) Reviewing the current data

As already pointed out, survey result indicated that yield data from the crop cutting were somewhat higher than the existing OAE data. We need to study the results carefully and, if necessary review the latter data. A part of the data has already been reflected in OAE publication (cassava). Further studies will be necessary for production data coming out of OAE.

(c) Further improvement of survey design

Sample frames and sampling technology currently used by CAI must be improves so that more reliable data may be obtained. It is also necessary to synchronize the crop cutting to rice harvesting times, which differ widely among regions and provinces. Otherwise, the sampled fields for crop cutting may cause biases because of biased time coverage of harvesting.

(d) Upgrading capacities further for ROAE officers and SKT

In order to ensure continuous implementation of the survey, further upgrading of ROAE staff and SKT is necessary. Up to the present, the project concentrated itself in letting them understand the methods and acquire the technique. From now on, however, we should step further to let them enhance their mind for responsibility and

exactness of their field activities.

3. Information Network System

(1) Activities

(a) Installing PC and network equipment

The project installed 4 sets of personal computers (three desktop and one notebook type) in each of nine ROAEs. All these computers were connected to the ROAE network. Anti-virus software was installed in all these computers. ROAE staffs were recommended to update the virus information periodically and scan for viruses. OAE replaced the dial-up connection by frame-relay system to connect OAE and ROAE, which dramatically increased the communication speed.

(b) Opening ROAE Web Sites

It was decided that all ROAE web sites would carry common contents items. The project organized training courses for web site creation, distributed web generating software to all the regional offices. The number of ROAEs having their own web sites increased from four in July 2004 to eight now.

(c) Developing survey data processing system

The Data Processing Group developed the crop cutting survey data entry and summation programs.

At the beginning, the programs used the Excel VBA, for such crops as cassava, sugar cane, longan and rice. In October 2004, the OAE-ROAE network became faster with the introduction of frame-relay communication. In order to take advantage of this, the project developed a web-based data entry system assisted by Mr. Arimitsu, a short-term expert.

The web-based data entry/ reporting system by the project opened a new road for OAE to develop its own survey data processing system. It has started to develop a new program on the similar concept by using a commercially marketed database system. This system, if successful, will be more user-friendly and easy to develop for CAI staff.

(d) Developing statistical database system

The above-mentioned data entry system based on web network is now being connected with a database of crop cutting survey

data for individual sample farmers/plots. The latter is now being improved for readily available analysis results to the OAE-ROAE users. The Group considers the ways of using the database system for crop forecasting.

- (e) Assisting sampling frame construction for using Agricultural Census data

The project requested Mr. Sasazima, a short-term expert to show us the procedure to develop a list sampling frame for surveys using the 2003 Census of Agriculture obtained from the National Statistics Office (NSO). He constructed the sampling frame for crop cutting surveys for 14 commodities covering the province of Chiangmai. He also succeeded in combining numerical data and image data into a single file. The Data Processing Group of the project worked with Mr. Sasajima for the entire process of frame formulation.

(2) Outputs

- (a) OAE-ROAE network became faster.

As the OAE-ROAE network came into operation, communication became easier and quicker. ROAE web pages are expected to let linkage between ROAE and other regional offices and institutions to be closer to each other.

- (b) Survey data processing system (programs)

Crop cutting survey data processing programs were developed for cassava, sugar cane, longan, rice (including harvest loss and dyke surveys). Manuals on this data processing system utilization were prepared. As the result, data entry at ROAE and reporting them to OAE became dramatically fast. The national average of estimated yield became available within a few weeks after the survey was completed nationwide. It demonstrated the possibility of shortening time lags of statistical data publication after the survey date to a considerable extent.

In addition, OAE is developing pineapple crop cutting data entry system by its own on the basis of the same concept.

- (c) Construction of sampling frame

As the result of a short-term expert, the project was able to construct the sampling frame for crop cutting surveys for 14

commodities covering the province of Chiangmai. We also succeeded in combining numerical data and image data into a single file. This was a major technical breakthrough for the Data Processing Group of the project: It opened the way for the overall list sampling frame for all CAI surveys in the future. The counterpart members have technical capability to do the task if budgetary and other conditions are satisfied.

(3) Problem

- (a) Coordination between data processing and statistical survey sections are insufficient

Coordination between data processing and survey sections is insufficient, hampering more effective data processing/ reporting system development. For the program development, both sides are requested to coordinate with each other to convey information concerning survey forms, sample selection, survey item changes, etc. The data processing programs have to be test-run a few times before being completed.

- (b) Limited use of web-based data processing system

To date, the use of web-based data entry/reporting system is limited to sugarcane and cassava. It is necessary to expand the use of this system for other crops as soon as possible.

- (c) Limited time for program development

Time available for programming is too short. For most crop cutting surveys, time period between the survey design and field survey is between one or two months, leaving limited time of program writing and test-running them. As the number of crops surveyed by crop cutting increase, the Data Processing Group will face difficulty in preparing the programs in time.

4. Economic Analysis

(1) Activities

Economic Analysis Group made a slow start under the short-term expert leading the C/P group every time he arrived in Bangkok. In June,

however, a long-term expert established himself permanently in Bangkok and the activities of the group accelerated. The group was reorganized and expanded; the group received training of basic theories and applications; basic data were collected and studied for incorporating into the economic analysis models; a seminar was organized in OAE to inform the attendants of what they gained in C/P training in Japan in September/ October 2004.

(Note) Activities on OAE concerning Economic Analysis had started before ASEAD started; however no expert could come until the beginning of the ASEAD project and a short-term expert could not take enough care until June 2004. Therefore, the progress of activity was not sufficient.

(2) Outputs

- (a) C/P gained basic theory and application on input-output analysis, macro-economic modeling, and commodity supply-demand modeling.
- (b) Preparation for I/O table 2000 proceeded with the plan of completion in the later part of 2005.
- (c) Two sector macro-economic model was updated and to be expanded for link model.
- (d) Three commodity supply-demand models (rice, maize, and cassava) were developed and updated.

(3) Problems

Due to insufficient day-to-day support by the short-term expert in this activity, the working group could not work in collaboration with the expert and C/P participation in the work was lagged behind. Their heavy routine work assignment might have disturbed the smooth contribution to the economic analysis activity.

5. Development of training capacity

(1) Activities

(a) In-house training

After the OAE training room (AFSIT Center) was established, training of OAE staffs took the lead. During the Thai Fiscal Year 2004 (October 2003 to September 2004), a total of 14 training courses were

conducted with participation of approximately 800 persons. In the Fiscal Year 2005 (starting in October 2004), 21 courses are planned, of which 8 training courses have been so far organized.

As the field survey of crop cutting were conducted on the regional level, increasing efforts and resources of the project were allocated to the regional-level training. The main focus was ROAE staffs and SKT for field work of crop cutting. For example, nine Regional Offices of Agricultural Economics organized s training course of rice crop cutting each. Similarly, the combined regional training of cassava and sugarcane was conducted by ROAE 1 &2 together, 3, 4, 5, 6 and 7, respectively. Training method was a combination of lectures, field practice and group discussion.

(b) Overseas training

Thai counterparts were sent to Japan for training. So far 11 (eleven) persons were trained there, including 3 persons on a cost-share basis, mostly paid by the OAE budget. One of these groups visiting Japan reported the output of the training to OAE Secretary General and seventy staff members at a half-day seminar.

Separate from JICA training, OAE sent a team of 7 staffs to Japanese Ministry of Agriculture, Forestry and Fisheries, where they learned the Japanese system of agricultural statistics and information.

Technical exchange visit brought 4 counterparts to Indonesia to gain knowledge on the Indonesian statistical system and JICA Agricultural Statistics Technology Improvement and Training (ASTIT) project (1994-2001).

(2) Outputs

- (a) Capability of OAE and ROAE staffs were upgraded for survey planning and implementation. Some OAE counterparts are capable to plan/design crop cutting surveys and some can organize and teach SKT training courses.
- (b) Counterparts in OAE and ROAE are increasingly capable to organize training programs by themselves. They can prepare training materials, give lectures and lead field practice.
- (c) We are finding a few CAI staffs who newly join the project activities. They add new dimensions and strength to the project.

- (d) SKT are getting trained in crop cutting and some of them demonstrate sufficient capacity to continue with crop cutting and other surveys.
- (e) The Training Room (AFSIT Center), to which JICA contributed computers and training equipment, is being used not only for training programs of ASEAD project but also for those of wide variety and a large number of people are being trained there.

(3) Problems

- (a) While ROAEs are increasingly capable of organizing and teaching training courses, they are still short of institutional capacity to organize and conduct various types of statistical surveys. They lack technical experiences for objective surveys. They have insufficient manpower and resources.
- (b) As the project activities widened and deepened, the project needed additional counterpart members to cover new activities. One example is crop cutting data processing and analysis. Crop cutting survey now covers 4 commodities and 4 additional ones are expected to join. However, preparing data-entry programs as well as data processing and analyzing the input data is being virtually taken care of one counterpart person and one JICA expert. It results in limited time available to look into the data for errors and problems. Counterpart members are also too few for necessary work to plan and conduct crop cutting surveys for increasing number of commodities.

6. General activities

After the first meeting of JCC, the project prepared the project monitoring plan. The first monitoring covering the first year activities (July 2003 – June 2004) was planned for July-August 2004. However, heavy work schedule of the project delayed our work. Only in January/February 2005, the monitoring was completed. Its report is submitted to this JCC.

The CAI staff and JICA experts together published a newsletter “ASEAD News”, which informed the project activities extensively to agencies and people concerned. The Project web pages played its part in informing the project to the public.