Project Document on Agricultural Statistics and Economic Analysis Development

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Abbreviation

ADB: Asian Development Bank

AEZO: Agricultural Economic Zone Office

AFSIS: ASEAN Food Security Information System

AFSIT Center: ASEAN Food Security Information and Training Center

AMAF+3: ASEAN Ministries of Agriculture and Forestry +3

CAI: Center for Agricultural Information
DOAE: Department of Agriculture Extension

FAO: Food and Agriculture Organization of the United Nations

GDP: Gross Domestic Production

MAFF: The Ministry of Agriculture, Forestry and Fisheries of Japan

MOAC: Ministry of Agriculture and Cooperatives

OAE: Office of Agricultural Economics

PCM: Project Cycle Management

PDM: Project Design Matrix

TSI: Tentative Schedule of Implementation

USAID: The United States Agency for International Development

WTO: World Trade Organization

1. Introduction

In Thailand the international financial crisis in 1997 and following serious economic contraction starting in June 1997 have newly roused the social and political awareness of agriculture and it's relating sector's importance in national social and economic development. The sector was relatively stable during the economic crisis and absorbed adversely affected unemployed people. Consequently expectation to the sector for the national development is heightened. At the same time as a member of World Trade Organization (WTO) the Government has to respond to the international trade liberalization and the domestic reform in the agricultural sector following the WTO initiatives.

In this circumstance the Government of Thailand has to respond to the above issues with the appropriate and timely policy and program / formulation and implementation for the agriculture and its related sectors, and for wider social problems. For formulation of proper policy and program/ comprehension of the real situation is essential. At present, however, agricultural statistics and economic analyses are not sufficient in accuracy / reliability and its timing of release is late.

Furthermore ASEAN Food Security Information and Training (AFSIT) Center which is the executive body for the ASEAN Food Security Information System (AFSIS) was established in Office of Agricultural Economics (OAE) under the Ministry of Agriculture and Cooperatives (MOAC) of Thailand. The general framework of the ASEAN Food Security Information System (AFSIS) was agreed upon and endorsed by the Ministerial Meeting of Ministries of Agriculture and Forestry of ASEAN Member Countries, China, Japan and the Republic of Korea (AMAF +3) in October 2001.

The operation of the AFSIT Center including international training for AFSIS member countries in terms of technical skills and knowledge, as well as exemplary practices in agricultural statistics and economic analyses for the AFSIS, however, exceeds the current capability of the OAE.

Aiming to solve these problems the Government of Thailand requested the Government of Japan for a technical assistance project for the agricultural statistics and economic analyses development. Responding to the request JICA dispatched the First Preparatory Study Team for the purpose of formulating the appropriate project framework in July 2002. Based on the conclusion of the first study team, the Second Preparatory Study Team (Second Team) was dispatched in December 2002. The draft Project Design Matrix (PDM) was prepared through the workshop conducted during Second Team's stay in Thailand with participation of Second Team members and the related personnel from the Thai side. This document is prepared by Second Team based on discussions between the Team and Thai side, information obtained

through the workshop, PDM and the additional information.

This document is prepared for providing additional detailed information to the Project Design Matrix (PDM) aiming to attain more profound understanding of the Project and its context by the related personnel to the Project. This contains information regarding the background and current issues related to the Project, the problem to be addressed by the Project, the strategies and framework of the Project, and the comprehensive justification of the Project implementation.

2. Background of the Project

- 2-1. Socio-Economic situation
- 2-1-1. Social and Political Situation
- 1) Geographical, Natural and Social Conditions

Thailand with total population of 63 million is located in Southeastern Asia. Its land area of 513,115 square kilometers is delineated by the Andaman Sea and Myanmar on the west and northwest, Laos on the northeast and east, Cambodia and the Gulf of Thailand on the southeast, and Malaysia on the south.

The land stretches 1,860km from north to south which is roughly 16 latitudinal degrees while the east-west length is less than 1,000km. Mainly due to this wide distance between north and south together with the difference in latitude Thailand has wide varieties of climate and natural conditions.

Thailand is divided into following four natural regions:

- The North which is a region of mountains and fertile valleys,
- The Central Plains or Chao Phraya River Basin which is a vast and fertile flat plain,
- The Northeast or the Korat Plateau which is an arid highland region with harsh climate, and
- The South or the Southern Peninsula which is hilly to mountainous area with thick virgin rainforests.

Although GDP per capita x exceeds US\$2,000.-, 14.2% of the people live in poverty in 2000. Since Thailand had pulled poverty rates down from 32.6% of the population in 1988 to 11.4% in 1996, the current poverty level is still higher than the past lowest level owing to the economic crisis occurred in 1997 to 1998.

2) Political System

Thailand adopts constitutional monarchy headed by King Bhumibol (PHUMIPHON) Adunyadet, King Rama IX. Bicameral National Assembly consists of the Senate and the House of Representatives. The prime minister is designated from among the members of the House of

Representatives; following a national election for the House of Representatives, the leader of the party that can organize a majority coalition usually becomes prime minister.

Current administration initiated in 2001 is the first one being elected under the new constitution guaranteeing more human and civil rights which has been in effect since 1997. The Government is composed of three party coalition headed by the Prime Minister Thaksin Shinawatra's Thai Rak Thai (Thai Loves Thai) party.

3) Administrative System

As a part of the bureaucratic reform commenced in 1997 which includes decentralization, efficiency increase, budget reform, and clear separation of the three powers, the reorganization of the Ministries has been in effect since October 1, 2002.

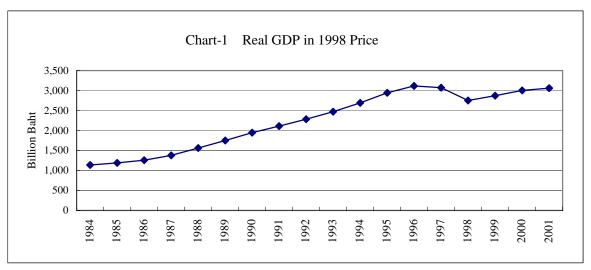
Thailand's administrative divisions consist of 76 provinces (*jangwat*) which are further subdivided into districts (*amphoe*), quasi-districts (*king-amphoe*), communes or group of villages (*tambon*) and villages (*muu baan*). Urban areas with more than 50,000 inhabitants and a population density of over 3,000 per sq. km are designated as *nakhon*. Ones with 10,000 to 50,000 inhabitants and over 3,000 per sq. km population density are *meuang* (*muang*). The word *meuang* is also used to mean metropolitan area in loose definition. The governors of the provinces are appointed by the Ministry of the Interior except for the Metropolitan Bangkok of which governor is elected by a poll.

2-1-2. Economic Situation

Thai economy in 2002 has been improving significantly from the sluggish GDP growth of 1.8% in 2001. A growth rate of GDP is estimated between 4% and 4.5% for 2002. It is achieved due to a domestic-demand-led boost realized by policy mix of affirmative government spending and relaxed monetary policy while the global economy is still in difficult condition. The GDP is expected to exceed the pre crisis peak level in real term.

In 2001 Thai economy was seriously affected by the global economic slowdown. GDP growth rate declined from 4.6% in 2000 to 1.8% in 2001. It is appreciated, however, that Thailand managed the growth of the economy in the global economic downturn. The current good economic condition is attained based on this achievement.

As shown in the Chart-1, Thailand achieved the high growth of the economy from 1980s to mid 90s. In 1997, however, the Asian financial crisis hurt the economy seriously. The economy contracted slightly in 1997 followed by the drastic contraction in 1998 by 11% in shrinkage.



Source data: NESDB

Currently the largest industrial sector is Manufacturing with 36% of the GDP followed by Whole and Retail Sales including Repair Services (15%), Agriculture including Fishery (10%) and Transport, Storage and Communication (10%). Manufacturing export with more than 80% of the total exports has become dominant among the export products while the agricultural export is still playing an important role as stated in 2-2-1. A ratio of the agricultural export against the entire export is 10% while the export of Food commodity is 14%. This indicates that the agro-industry including food processing occupies substantial proportion in the economy. Its major export markets are U.S.A. and Japan.

The Government is aiming for the broad-based economy not only by continued development of textile and light industries such as electronics, but also by growing knowledge economy. It promotes export oriented industries while attention is paid to reduce vulnerability to the external changes taking into account of the unfortunate lessons caused by the crisis. Agriculture and related sectors are expected to contribute to export as well as to alleviate vulnerability to change in international economic environment.

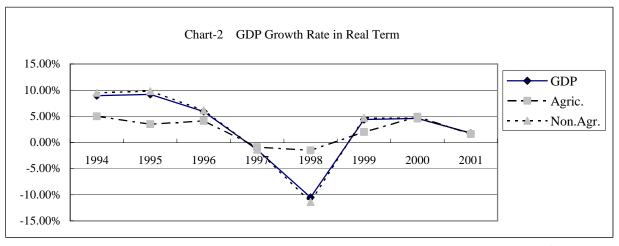
2-2. Description of the Sector/Sub-sector

2-2-1. Agriculture Sector

Although the share of agriculture in GDP has declined from more than 30% in the 1970s and around 20% in mid 80s to about 10% today, agricultural sector still assumes significant importance in Thailand since about 50% of the labor force is engaged in agriculture. An estimated 60% of the total population lives in rural areas, and 90% of them are farmers.

In addition, agricultural export, constituting 10% of Thailand's entire export value, is one of the major export product items. Thailand is highly competitive in some agricultural export items, too. It is a top exporter in the world of rice and natural rubber and is ranked second in tapioca export and fifth in coconut. Sugar, maize, pineapple, cotton, jute, green beans, soybeans, palm

oil are important agricultural exports. Furthermore, processed food and beverage including canned shrimp, tuna and pineapple earn significant amount in export.



Source data: NESDB

As shown in the Chart-2, agricultural production did not grow as rapidly as output in other sectors during the economic boom. It contracted, however, very slightly comparing to other sectors during the economic crisis.

At the time of economic crisis the sector absorbed large numbers of the urban unemployed by allowing re-migration of an estimated 1.2 million people from urban areas.

Thus agricultural sector's significance is newly recognized after the economic crisis.

In this circumstance the Government intends to strengthen the employment capacities of the agriculture and it's relating sectors for stable economic and social development especially in rural areas for the equitable development. It is also expected as one of a major means to reduce regional imbalance in economic and social development.

To deal with the above stated issues, it is important to bolster the capacity of the agriculture sector not only for the social and economic development but also for the environmental conservation through efficient and adequate use of resources. For this aim a) improvement of productivity through optimization of input such as fertilizers and pesticides, of crop selection, and of land use, b) enhancement of export competitiveness for market expansion, and c) improvement of sector management for proper resource allocation/ management are the key issues for MOAC to undertake.

Meanwhile, as a member of WTO (World Trade Organization), agricultural trade liberalization and domestic reform implementation in line with the basic rules and commitments by WTO Committee on Agriculture may have substantial influence on the agriculture in Thailand. Quick and appropriate responses by the Government to the two subjects, especially the domestic reform implementation, are critical for the nation's social and economic development since Thailand has practiced protective and subsidiary measures for the sector.

In the circumstance stated above, demand for the proper agricultural policy and program planning and implementation has much been heightened.

2-2-2. Role of Agricultural Statistics and Agricultural Economic Analyses

Timely and reliable agricultural statistics and agricultural economic analyses based on the accurate data, information, and methodologies form sound foundation for the proper policy formulation. Agricultural statistics and economic analyses are instruments to illustrate real pictures of the local situations especially for the policy makers by providing information including total production in terms of volume and monetary value with cultivation areas, productivity indicators such as per unit yield and per unit input, cultivation areas, farm gate and market prices, and farm socio-economic situations. Furthermore, these provide useful data and information for decision making of all the people related to the agriculture including policy makers, farmers, merchants, agro-industry operators, and government officials.

2-3. Strategy of the Thailand for the Agricultural Sector

The current 5-year national plan, the Ninth National Economic and Social Development Plan (October 2001 to September 2006), focuses on poverty reduction and balanced development.

The plan adopts 7 strategies categorized in 3 groups for the achievement of its objectives for poverty reduction and balanced development.

Group I: Establishment of good governance at all levels of the society.

(1) The good governance strategy provides the major thrust for other strategies.

Group II: Consolidation of a strong social foundation.

- (2) Development of human potential and social protection.
- (3) Restructuring of management for sustainable rural and urban development.
- (4) Natural resources and environmental management.

Group III: Economic restructuring for balanced and sustainable development.

- (5) Macro economic management strategy.
- (6) Upgrading national competitiveness
- (7) Strengthening of science and technology development.

The Plan places priority on the following development areas for the strategy materialization:

- (a) Stabilization and rehabilitation of economic and social conditions to create conditions for more rapid economic recovery with stability.
- (b) Strengthening of grassroots economies.
- (c) Alleviation of social problems.

Within the above framework of the 5-year Plan, the following policies have been developed as

major objectives for the Ministry of Agriculture and Cooperatives (MOAC) which is responsible for the Agricultural Sector:

- (1) To stabilize economy of farmers and to develop farmers' quality of life in order that they can rely on themselves and get opportunity in learning and social service fairly and completely {Strategy (2): Priority (a), (b), (c)},
- (2) To strengthen communities and farmers' organizations including community cooperatives to be social base in which agricultural development network is in accordance with existing local wisdom and culture {Strategy (2), (3), (4): Priority (a), (b), (c)},
- (3) To improve capacity of national competitiveness to make Thailand a quality source of food production and farm products processing of the world {Strategy (6): Priority (a)}, and
- (4) To develop management system of farm sector in order to use natural resources more effectively, Farmers, farmers' organizations and rural communities become the core of sustainable agricultural development {Strategy (3), (4): Priority (a), (b)}.

2-4. Prior and on-going projects

2-4-1. Prior and On-going Projects by MOAC

The MOAC has made a series of efforts to improve its statistical data system. In 1999/2000, Office of Agricultural Economics (OAE) has conducted a nationwide survey of socio-economic and labor survey for farm households. It was aimed at evaluating impacts of economic crisis which started in 1997. The survey has gone through a number of improvements such as data coverage as compared with the previous one (conducted in 1995/1996).

In 2001/2002 intensive rice production survey was conducted with the new framework of statistical data collection and processing procedure applying decentralized data input procedure (AEZOs conducted data input).

Farmer registration project by the Department of Agricultural Extension (DOAE) under MOAC is now suspended. This project was decided in 2001 and commenced in 2002. It has completed farmer registration in 35 out of entire 76 provinces, while the complete timing of the rest of the provinces is not certain. The suspension involves problems in procurement of computers and influence of the cabinet decision for adopting national digital personal identification information card.

2-4-2. Prior Projects with JICA Assistance

OAE improved its commodity production forecasting by the introduction of an econometric model under assistance of a JICA Expert for agricultural econometric model preparation (1996-98). Another JICA Expert for the same subject (2000.4-2002.3) and a JICA Expert for

agricultural statistics and information (2000.7-2002.7) have assisted OAE to formulate an input/output model, macro-economic model, and commodity model for the agricultural sector. In addition to the above stated 3 long term experts, JICA dispatched 2 short term (2 month period) experts to OAE in the same field for agricultural econometric model preparation in 1994 and for rural socio-economic survey planning in 1999.

2-4-3. Past Projects with the Other Organizations

During 1970s to 80s crop cutting data survey was conducted with USAID initiative and support. USAID provided a laboratory with necessary equipment and dispatched experts a few times. It provided OAE staff training for practicing the survey. Unfortunately the practice was terminated in 1988 due to the policy change in data collection for quick and inexpensive direction.

After the termination of this practice, interview to sample farmers has been substituted for it. Then reduction in accuracy/ reliability of statistical data and analyses has been getting significant. Since this issue has been recognized as one of the serious factors limiting appropriateness of the agricultural statistics and economic analyses by MOAC, the policy of the data collection has been under reconsideration.

2-5. ASEAN Food Security Information System (AFSIS)

After the workshop on the ASEAN food security cooperation and rice reserve system held in July 2001, there have been vital discussions regarding the food security system in ASEAN region.

By Ministerial Meeting of Ministries of Agriculture and Forestry of ASEAN Member Countries, China, Japan and the Republic of Korea (AMAF +3) held in Medan, Indonesia in early October 2001, a) the implementation of the joint study on rice reserve system and b) the development of the ASEAN Food Security Information System (AFSIS) in association with FAO were agreed and endorsed. At this meeting the government of Japan declared to provide required assistances for the study implementation and the development.

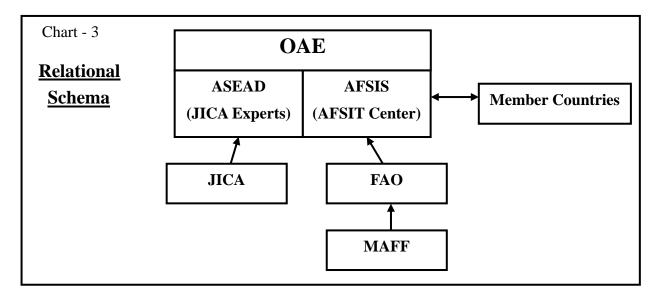
Following this the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan arranged consecutive 5 years financial contributions to the ASEAN secretariat office and FOA for supporting realization of the AFSIS framework and basic plan.

Further discussion for the concept of AFSIS and action plan was carried out in the AFSIS Technical Meeting in August 2002. The project implementation plan (PIP)for the AFSIS Project was legitimately agreed on by the high ranking officials' meeting and the 2nd AMAF+3 meeting held in Vientiane, Laos in October 2002. Accordingly to the PIP the ASEAN Food

Security Information and Training Center (AFSIT Center) for the AFSIS operations was established in January 2003.

The purpose of AFSIS is to facilitate planning, execution monitoring and evaluation of the food security system in ASEAN region by the organized collection, compilation, storage and analysis of the data/ information regarding the food security. For the achievement of the above the following 2 activities will be conducted with the due consideration of the current development conditions of the agricultural statistics in the member countries: 1) information network system development, and 2) human resource development.

The AFSIT Center aims to diffuse data collection and utilizing techniques regarding the agricultural statistics for realization of timely provision of appropriate and accurate information by the agricultural statistics agencies in the ASEAN countries, which help strengthening of ASEAN food security framework. This Project with JICA will contribute to strengthen the capacity of OAE as the AFSIT center through human resources development.



In addition to this JICA Project the following 3 projects under FAO with the financial contribution of MAFF support AFSIT Center activities: a) a food and agricultural statistical data exchange system project, b) a medium and long term food demand-supply model project, and c) a database project for major malnutrition factors. (See Chart-3 and Table-1)

Major Activities of the Three Projects Table-1				
JICA Project	AFSIS Project	FAO Project		
Strengthening Capacity of OAE for the AFSIT Center Operations	Establishment and Operation of Information Network for AFSIS centered in AFSIT Center	 Agricultural statistical data exchange system project Medium and long term food demand-supply forecasting 		
2. Strengthening Capacity of OAE in Conducting Domestic	2. International Training for Member Countries by AFSIT	model project		

Statistical and Analytical Activities	Center	3. Database project for major malnutrition factors
		mamatinon factors

3. Problems to be Addressed and Current Situation

3-1. Institutional Framework for the Sector

The Ministry of Agriculture and Cooperatives (MOAC) is the central organization to promote primary industry development. Together with agro-industries the agricultural sector is expected to contribute significantly to the achievement of poverty reduction and balanced development focused by the current Ninth Plan mentioned in 2-3. MOAC possesses vast responsibilities in the sector policy formulation and implementation. (See Chart - 4)

State Enterprises Attached to Ministry Ministry of Agriculture and Cooperatives of Agriculture and Cooperatives Office of Secretary to the Minister The Forestry Industry Organization Office of the Permanent Secretary **Rubber Estate Organization** The Royal Irrigation Department Fish Marketing Organization Department of Cooperative Auditing **Daily Framing Promotion** Department of Fisheries Organization of Thailand Department of Livestock Rubber Estate Welfare Fund Office Department of Forestry Thai Plywood Co., Ltd. Department of Agriculture Marketing Organization for Farmers Department of Agriculture Extension Office of Agricultural Affairs in Cooperative Promotion Department **Overseas** Land Development Department Agriculture Land Reform Office

Chart-4 Organization MOAC of OAE(staff Nos.)

Office of Agricultural Economics (OAE) is a large scale organization as a policy/ planning establishment with 673 staffs under the MOAC. OAE is responsible for the following (See Chart-5):

- Formulation of appropriate agricultural policies and development plans,

Office of Agricultural Economics

- Agricultural data collection and statistical activities including the agricultural economic analysis,
- Agricultural economic research,

- Monitoring and evaluation of the Ministry's project impacts,
- Agricultural zoning, and
- The Ministry's budget consolidation and monitoring.

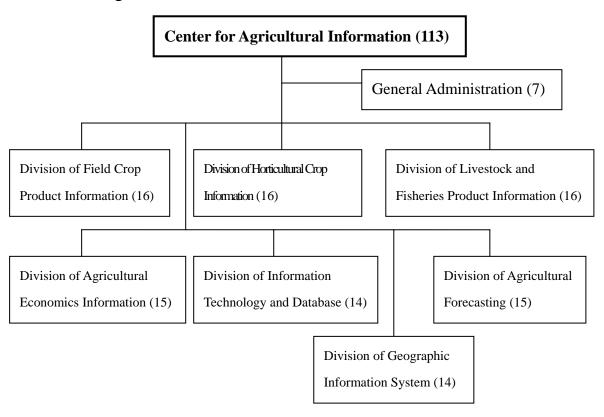
Organization Chart of OAE (Staff No.) Chart-5 Office of Agricultural Economics (673) Administrative System Development Group (5) Internal Auditing (3) Office of Bureau of Agricultural **Center for Agricultural** the Secretary (72) Economic Research (103) **Information (113)** Center for Economic Bureau of Agricultural Office of Agricultural **Policy** and **Planning** Project and Program **Economics Zone** Development (103) Evaluation (58) (AEZO: 9 Zones)(216)

Among these responsibilities Center for Agricultural Information (CAI) is in charge of the agricultural statistics and economic forecasts. These statistical information and forecasts form a base for the proper national policy formulation only for the agricultural sector but also for the development program planning.

Data and information for the statistics and forecast include the following (SeeChart-6):

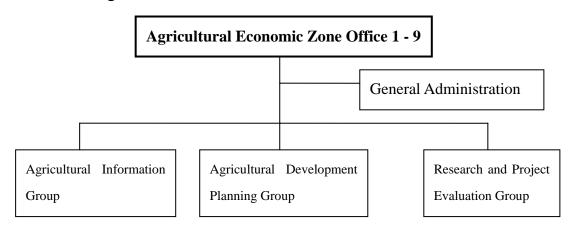
- Crop production quantity including cultivation aerial area,
- Production cost,
- Farm gate price, mill, silo, and barn prices, market bidding price, and
- Socio-economic situations of farms.

Chart-6 Organization Chart of CAI



As key organization for the field data and information survey and dissemination of the data and information 9 Agricultural Economic Zone Offices (AEZOs) are located to cover entire 76 provinces. AEZOs have been upgraded as organizations with the legal endorsement and they were consolidated from former 24 offices to 9 offices aiming to enhance their authority and efficiency in January 2003. With this consolidation aerial coverage of each AEZO is extended significantly. This means that AEZO staff has to conduct survey by trip in more extensive areas than before. (See Chart-7)

Chart – 7 Organization Chart of AEZOs



Staff of CAI and AEZOs holds at least bachelor degree except supporting staff. Most of the expected Project staff possesses higher degrees.

3-2. Problems to be Addressed

3-2-1. Issues related to Domestic Statistics and Analyses

Agriculture is the largest employment sector which is the important exporting economic sector at the same time has significance in the rural economic development. For the achievement of the objectives stated in 2-3 and converged social attention to agriculture and related sectors as stated in 2-1 and 2-2, formulation and implementation of proper and timely policies/ programs are important issues for MOAC. For addressing of these issues, strengthening of CIA personnel's capability is an immediate requirement.

Appropriate agricultural statistics and agricultural economic analyses form sound foundation for the proper policy formulation. However, agricultural statistics and economic analysis provided by CAI has not been adequate enough for MOAC to formulate and to implement proper policies, programs and projects. More timely and accurate data/ information and economic analysis are essential for the policy makers and program/planners who have to respond responding to the rapidly changing socio-economic conditions.

3-2-2. Issues related to the AFSIT Center

Meanwhile in connection with the AFSIS, OAE has to set up and to operate AFSIT Center. OAE is obliged to develop its capability to provide international training which is based on their own experience of agricultural statistics and economic analyses, as well as to establish and operate information network system for the AFSIS.

3-3. Current Situation

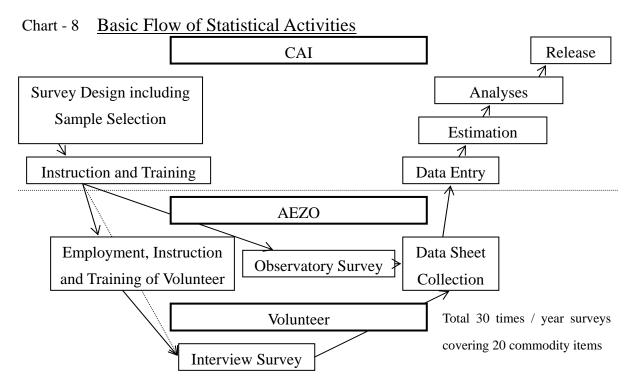
3-3-1. Accuracy and reliability of the data

CAI in collaboration with AEZOs is conducting agricultural statistical survey using interviews to sample farmers, and observatory monitoring by the staff. Rather low accuracy/ reliability of the data is pointed out, since the interview involves intentional and unintentional unreliable answers and observatory monitoring is subjective in nature. It is difficult to support the data which is in question for the reliability, although certain degree of precision is maintained by cross reference of the inquiry and the monitoring together with data and information from other sources. At present no measure to further enhance the data accuracy/ reliability is employed by CAI.

There are also data adequacy problems. These include a) unsatisfactory coverage of data items, b) lack of standardized methodologies for data collection and inconsistency in data survey, c)

inconsistency in time series, and d) unstable survey volunteer network. Most of these problems are interrelated. The enormous diversity of natural and social conditions in Thailand intensifies the problems.

At present all the statistical surveys are planned and controlled by the CAI in OAE head quarters including sampling design and sample farmer selection, survey items and inquiry items, and survey timings. Considering the diversity of the cultivation activities in Thailand certain degree of autonomy of AEZOs in survey planning and design is desirable for further efficiency. Current statistical survey procedure is shown in Chart-8.



It is not adequate to apply centralized system to the surveys of special products in particular regions. For this decentralization it is indispensable to attain common cognition of the statistical and analytical activities conducted by CAI among the related personnel in addition to raising statistical capability of AEZO staff.

Furthermore even if the survey methodologies are appropriate, quality of the personnel carrying out the survey affects the quality of collected data and information. Continuing efforts for human resource development including trainings and practices, and institutional measures are necessary.

3-3-2. Situations of Publication Timing

Since the centralized data input procedure is adopted except for the recent rice production survey, it is difficult to shorten the data compilation period which involves the data sheet collection, manual input, data correction.

As a result, publication timings of the statistics usually exceed 1 year after the completion of the physical data survey.

3-3-3. Situations of Agricultural Economic Analysis

Agricultural economic analyses including production forecast conducted by CAI is yet to be improved in terms of accuracy and timing of publication. At present multiple regression models are used for the quarterly rice production forecast, which produce fair but not quite satisfactory results. Introduction of further sophisticated methodologies including input-output macro-economic model analysis and demand-supply forecasting model as well as the advanced use of statistical software package are desirable for more precise and reliable analytical results.

3-3-4. Situations of Human Resource Development

Although CAI is conducting training program for AEZO staff and survey volunteers as the need arises, these programs are providing basic skills and knowledge only. Envisaging the introduction and regularization of new and/ or improved data survey methodologies, sophisticated analytical methodologies, new data processing and utilization system including information network, upgraded human resource development targeting middle and advanced level staff is indispensable. Requirement for the improved training capability for the advanced skills and knowledge includes training program development, competent trainers and adequate training facilities, including a well equipped training room and training fields with appropriate transport means for the practical training for the advanced skills and knowledge.

3-3-5. Situations of Data Processing and Utilization

The rice production survey conducted in 2001/2002 is the first and the only occasion to apply decentralized data input into computers in AEZOs. At the time, input data were transferred by the form of discket and processed in CAI. This was the preliminary development basis for the data processing and utilization system i.e. information network system in OAE.

Considering the significant time reduction in data compilation even by the disket transfer stated in 3-4-2, data transfer and compilation through the internet based information network system shall be a great advantage in curtailing lead time for publication of statistics and results of economic analyses. Furthermore the system is expected to contribute to forming common cognition of the statistical and analytical activities conducted by CAI among the related personnel, and to consensus formation regarding data validation.

In addition the system may facilitate dissemination of the statistics and analytical results. Easier access and utilization of the data and information produced by CAI shall be materialized by the system.

At present CAI possesses computers with LAN for the current operations, while AEZOs are under-equipped in terms of computer system. Considering the upgrading and consolidation of AEZOs, reinforcement by appropriate digital equipment including desktop and laptop computers and digital cameras is necessary for data processing in the digital network environment. Information network facilities including servers for the network establishment and computer systems with LAN for the collective training are indispensable in CAI.

The system is expected to be an archetype of the information network system for AFSIS. Experiences in its establishment, operation and maintenance by OAE shall be groundwork for the development and operations of the information network system for AFSIS.

3-3-6. Requirements for International Activities

In addition to improvement in above mentioned basic activities OAE has to deal with a few more conditions. Since international exposure and experience of the OAE staff are limited, a few additional staffs who have enough international experience for the smooth operation of the AFSIT Center necessary. In the field of economic analyses capability of model modification has to be developed. Trainers who are capable for international training are also in need. Ability for standardizing international statistical outputs might have to be developed.

3-4. Relation with Japan's Assistance Policy

AFSIS, which aims upgrade of the regional agricultural statistical and analytical activities in ASEAN+3 region, is supported by the trust fund arrangement of the Government of Japan. Since this Project intends to strengthen the OAE's technical capability for the AFSIT Center operation which is an integral part of AFSIS Project, it is in line with the Japan's foreign assistance policy.

Furthermore the Project aim conforms to the current Japanese development assistance policy to enhance information and communication technology (ICT) in developing countries since the Project achievement will form a part of the foundation of the information network in Thailand which is located in the priority region of the Japanese assistance.

This Project aims to contribute to the Rural Development Sector which is one of the priority sectors for Japan's assistance to Thailand, by the proper policy formulation support through provision of accurate agricultural statistics and analytical information as stated in JICA's Country Specific Assistance Plan. The Project is also following the human resource development based strategy emphasized in the Plan.

Considering the above stated situation and its nature, the Project is duly relevant to the Japan's

Assistance Policy.

4. Strategy of the Project

The purpose of the project is to develop capabilities of OAE and then to achieve the following two goals.

- a) OAE will be fully capable of operating AFSIT Center, including development of information network system and economic analyses methods, which will be extended to the other ASEAN member countries.
- b) OAE members will acquire the appropriate technologies for data collection, analysis and usage of agricultural statistics, and then promote domestic agricultural statistics and economic analyses, providing reliable and timely information and analyses to the policy makers.

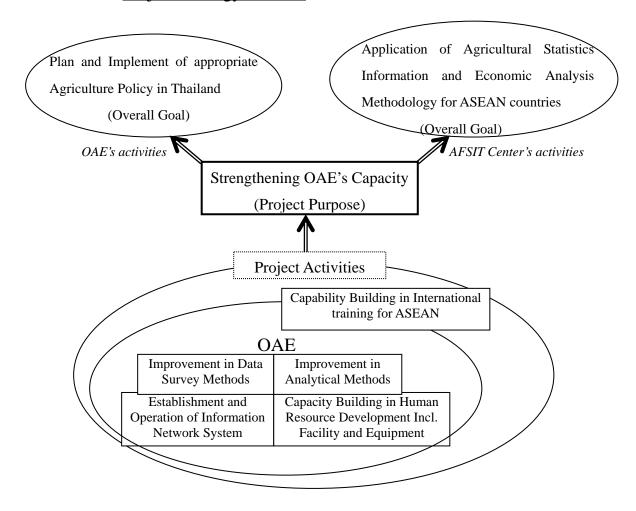
Enhancement of capacity of OAE in knowledge and skills, capability of training and network system shall be the basis for operation of AFSIT Center, and the improved statistic and analytical methods will be the model for the agricultural statistics in the other ASEAN member countries.

This project will focus on the human resources development in achieving the improvement of survey and analysis methods, establishment and operation of information network, and enhancement of training capacity. Involvement in re-organization of OAE will be limited to the matters related to improvement of training capacity.

In terms of improvement of domestic statistics, the Project will cope with the two issues, namely the accuracy and reliability of information, and timeliness of publication. With regard to accuracy and reliability, emphasis will be placed on improvement of survey and economic analysis. Overall upgrading of the statistical work including shortening of the lead time will be realized by the introduction of the Information network system. (Chart 9)

First three years of the Project will be allotted to improvement of overall agricultural statistics and economic analysis methods, and in the latter period of the Project term, the improved methods will be applied and adapted to the actual situations. The results of such adaptation will be established through training.(See Chart-9)

Chart – 9 Project Strategy Schema



5. Framework of the Project

5-1. Project Purpose

OAE is strengthened as a central institution for statistic information and economic analysis in terms of agricultural policy in Thailand and AFSIS.

The Project aims that OAE are going to release accurate/ reliable agricultural statistics and analysis within proper time frame for the related policy formulation, while it possesses technical capability for operating AFSIT Center effectively as the information and training center for AFSIS. For the attainment of this Project Purpose the smooth management of the AFSIT Center and the OAE's good coordination with the related organization are imperative.

5-2. Overall Goal/ Super Goal

5-2-1. Overall Goal

1. Statistic information and methodology of economic analysis developed by AFSIT Center are utilized in ASEAN Member countries.

2. Policies and programs for the agricultural sector are formulated and implemented by MOAC in more effective and efficient manners through accurate statistic information and economic analysis provided by OAE.

The attainment of "OAE is strengthened as a central institution for statistics information and economic analysis in terms of agricultural policy in AFSIS" means that AFSIT Center is active and acquires the credibility from ASEAN countries. As a result, OAE will contribute to utilization of the statistical information by ASEAN member countries, and to diffusion of methodology of economic analysis developed by AFSIT Center to ASEAN Member countries. Meanwhile the attainment of "OAE is strengthened a central institution for agricultural statistics information and economic analysis in Thailand" will contribute to MOAC's effective and efficient policy formulation through provision of timely and accurate data/ information and economic analyses by appropriate methodologies.

5-2-2. Super Goal

Food Security in ASEAN+3 region is strengthened.

Further to the above, the attainment of "statistics information and methodology of economic analysis developed by AFSIT Center are utilized in ASEAN Member countries" may facilitate planning, execution monitoring and evaluation of the food security system in ASEAN region by the organized collection, compilation, storage and analysis of the data/ information regarding the food security. Consequently it will contribute to enhancement of the food security in ASEAN+3 region.

5-3. Output and Activities

For the attainment of the Project Purpose by the approaches described in 4, the following items are planned to be realized as outputs..

5-3-1. Output

<AFSIT Center>

1. Human Resources of OAE are developed for Information Network System and agricultural economic analysis, mainly demand-supply forecasting, for ASEAN member countries.

<OAE>

- 2. Data collection methodology (mainly for paddy) in 9 Agro-Economic Zone Offices (AEZO) is improved.
- 3. Information Network System between OAE and 9 AEZOs is established.
- 4. Methodology of agricultural economic analysis is developed.
- 5. Training capacity of OAE staff is developed.

5-3-2. Activities

For achieving the above Outputs, the following activities have to be executed.

Activities for Output 1 concentrate on develop human resources of OAE for the technical aspects necessary for the AFSIT Center operations. On the job training by the JICA Experts is adopted for the human resource development of OAE staff.

- 1-1 Build capability of OAE staff in order to establish, operate and maintain Information Network System (INS) for AFSIS.
- 1-2 Build capability of OAE staff in order to modify Economic Analysis (EA) models for ASEAN countries.
- 1-3 Develop OAE personnel's training capability in EA & INS.

Activities for Output 2 aim to enable OAE to improve data collection methodology (mainly for paddy) in 9 AEZOs focusing on more accuracy/ reliability.

- 2-1 Introduce new data survey methodologies and improve current data collection methodologies.
- 2-2 Conduct training of 9 AEZOs' staff for new and improved methodologies at OAE.
- 2-3 Conduct field technical guidance to AEZO staff on the data survey.

Activities for Output 3 pursue establishment, operation and maintenance of information network system between OAE and 9 AEZOs aiming at time reduction of data compilation and processing, and easier data access and utilization.

- 3-1 Design and establish Information Network System (INS) connection between OAE and AEZOs.
- 3-2 Develop database system for INS.
- 3-3 Conduct training for network management, database management, maintenance and utilization of INS.

Activities for Output 4 intend to enhance reliability of economic analysis through introducing, customizing and regularizing use of advanced methodology.

- 4-1 Identify appropriate methodologies for OAE and develop particular models.
- 4-2 Conduct users' training for the models.

Activities for Output 5 are to develop OAE's capacity of training for diffusion of the new and improved methodologies and information system usage.

- 5-1 Plan and implement training courses.
- 5-2 Evaluate training courses and develop manuals.

<General Activities>

The following items are not directly connected to the Outputs above, but basic activities of the Project.

- 6-1 Establish required management and execution system.
- 6-2 Set quantitative targets for indicators, and conduct baseline surveys as necessary.

5-4. Strategy for Activity Implementation

It is important for the implementations of activities that the Project staff have to comprehend and to evaluate precisely the ongoing practices of statistical and analytical activities and real needs before deciding the particular methodologies to be introduced and what to be trained in practices. In this regard study and research for the needs assessment in the initial stage of the Project have special significance.

As specified in Activity 6.2 "target setting for indicators" and "baseline surveys" are quite important for clarification of the required endeavors for the Project achievement and for objective evaluation of the Project performance.

The following are approaches of the activities for the Outputs.

- a) Activities for the Output 1 aim the capacity building of the CAI staff mainly by the practical trainings applied through the actual job situation which are provided by the Japanese Experts.
- b) Activities for the Output 2 execute introduction and adaptation of superior methods for data collection with necessary guidance and training as a first step. Then the following activities follow; i) activities for diffusing these methods to AEZOs, and b) activities for regularizing them to upgrade data collection work and data quality.
- c) Activities for the Output 3 pursue network establishment, operation and maintenance by the particular CAI staff with their capacity building in necessary knowledge and skills as a first step. Then diffusion activities mainly user training for CAI staff in general and AEZO staff be conducted.
- d) Activities for the Output 4 execute introduction and adaptation of superior methods in economic analysis with necessary guidance and training as a first step. Then diffusion activities mainly user training for CAI staff in general and AEZO staff be conducted for regularization of these works.
- e) Activities for the Output 5 pursue preparation of the facilities and equipment necessary for

the training at first, then necessary guidance and training of CAI staff follow for CAI's training capacity building.

5-5. Monitoring and Evaluation

Monitoring is incorporated into the Project Activities for the proper management of the Project. Every monitoring activity is followed by evaluation and necessary feedback to the Project Activities. These monitoring activities serve for better reporting of the Project performance to the related authorities and for smooth external monitoring and evaluation.

5-6. Implementing Organization and Commitment by the Host County

Commitment of the Thai side is obvious since the budget of 4.6 million baths(including the budget for AFSIT Center) is already allocated for the Project for the fiscal year 2003 (October 2002 to September 2003). Idea for the appropriate implementing organization is almost concrete with the particular personnel. Working group for each key activity for the Project is being formed in CAI. MOAC regards the issues to be addressed by the Project as its own mandate. AFSIT Center in OAE will continue its activities after the Project terminated. This means that OAE has to maintain the upgraded capability regarding the AFSIT Center operations.

5-7. Input

Japanese Side

- Long-term Experts: 4 consisting of 1) Chief Advisor, 2) Coordinator/Training, 3) Data Collection/Information Network System, and 4) Agricultural Statistical Survey.
- Short-term Experts: about 2 expects per year (when necessary)
- Provision of machinery and equipment: computers, vehicles, equipment for crop cutting, and so on.
- Training of counterpart personnel
- Support of a part of local cost if necessary.

Thai Side

- A Provision of facilities: land, buildings and facilities for the Project and project offices, experts' rooms and other facilities mutually agreed upon.
- Assignment of counterpart personnel: Responsible counterparts (director level of each division in CAI, Working Group members) to Japanese experts and supporting staff.
- Necessary budgetary allocations for a) operation cost (e.g. training) and b) maintenance and upgrading cost for equipments.

5-8. Important Assumptions and External Risks

5-8-1. Important Assumptions

This Project is rather independent project which is expected to be less affected by the external factors. Important Assumptions listed in the draft PDM (ANNEX-1) are the following 2 items in the Output Level.

The other authorities such as the Statistic office of the prime minister's office and the National Economic and social Development Board (NESDB) are conducting statistical works that are related to agricultural statistics by OAE.

- Firstly OAE has good coordination with the relating organizations.
 At present coordination with the other relating organizations is essential to avoid duplicating of statistical activities, to ensure data convertibility, to obtain appropriate data and information. Although no serious problems have been experienced so far, it is desirable to conduct close monitoring of the progress of the statistical activities and timely provision of
- necessary data to OAE by other authorities.

Secondly AFSIT Center is managed smoothly.

The operating cost of AFSIT Center will be contributed by the Government of Japan through MAFF trust fund, and the coordination among the ASEAN member countries will be carried out by the focal point meeting to be held at least once in a year. Therefore, the condition above will certainly be fulfilled. Achievement of the Project Purpose "", however, depends on the successful management of AFSIT Center, and attention should be paid to the management of the AFIST Center.

5-8-2. External Risk Analysis

Political and economical risk for the Project is insignificant. As mentioned in "2. the Background of the Project", importance of the agricultural sector may not lessen at least for the Project period. Commitment of ASEAN+3 countries for AFSIS may not change. Since the Project itself does not require huge economic input while economy of the Thailand is in sound trend, budgetary and financial risk is low.

5-9. Administration Structure of the Project

The following executive body and 2 committees, namely, the Joint Coordination Committee and the Steering Committee are to be established for the Project administration

Executive Body

(1) Project Advisor: Secretary General of OAE

- The Project is managed by OAE under the responsibility of Secretary General.
- (2) Project Director: Deputy Secretary-General of OAE will bear overall responsibility for the Project.
- (3) Project Manager: Director of Center for Agricultural Information (CAI) will bear responsibility for implementation of the Project.
- (4) Deputy Project Manager: Three staff members of CAI will be assigned as Deputy Project Managers, and their responsibility is to implement the Project as a head of each activity.
- (5) The Japanese Chief Advisor will provide necessary recommendations and advice to the Project Director, Deputy Project Director and Project Manager on any matters pertaining to the implementation of the Project.
- (6) The Japanese experts will give necessary technical guidance and advice to the Thai C/P personnel.
- (7) For the effective and successful implementation of technical cooperation for the Project, a Joint Coordination Committee and a Steering Committee will be established.
- (8) OAE staff assigned for the Project will take a role of AFSIT Center simultaneously. Japanese experts support human resource development in AFSIT Center through technical guidance for staff assigned by OAE.

Joint Coordination Committee

The Joint Coordination Committee is to be formulated in the following manner.

The Joint Coordination Committee will be held once a year and whenever it is required.

- (1) Functions
 - a. To formulate the Annual Work Plan of the Project.
 - b. To review the overall progress and annual expenditure of the Project as well as the achievement of the Annual Work Plan.
 - c. To review and exchange views on major issues arising from or in connection with the Project.
 - d. To coordinate the activity of FAO.
- (2) Chairperson: Secretary General of OAE
- (3) Members of Thai side
 - Deputy Secretary-General
 - Director of CAI
 - Representative of Department of Technical and Economic Cooperation
 - Personnel concerned to be decided by Thai side

- (4) Members of Japanese side
 - Chief Advisor
 - Coordinator
 - Other Japanese experts
 - Representatives of JICA Thailand Office
 - Personnel concerned to be dispatched by JICA
- (5) Others: FAO

Note: Persons who are invited by the Chairperson may attend the Joint Coordination Committee meeting.

Steering Committee

The Steering Committee is to be formulated in the following manner.

The Steering Committee will be held when it is required.

- (1) Functions
 - a. To develop and improve detailed activities.
 - b. To monitor, coordinate and evaluate activities.
 - c. To summarize the proceedings of activities and report it to Joint Coordination Committee.
- (2) Committee Advisor: Secretary General of OAE
- (3) Chairperson: Deputy Secretary-General of OAE
- (4) Members of Thai side
 - Project Manager
 - Deputy Project Managers
 - Heads of each Working Group
- (5) Members of Japanese side
 - -Experts assigned to the Project

Note: Persons who are invited by the Chairperson may attend the Steering Committee meeting.

5-10. Necessary Condition

Although the draft PDM (ANNEX-1) has a Precondition of "OAE accommodates ASEAN Food Security Information Training (AFSIT) Center under ASEAN Food Security Information System (AFSIS)," this will surely be materialized since it was agreed and endorsed by the Ministerial Meeting of Ministries of ASEAN Ministries of Agriculture and Forestry +3 in October 2001.

In addition to the above following issue was raised by the 2nd preparatory study team and accepted by Thai side.

- In conjunction with the reorganization and consolidation of AEZOs, establishment of new statistical activity linkage especially for the local level is an immediate requirement for the Project implementation.

6. Comprehensive Justification of the Project Implementation

6-1. Relevance

6-1-1. Eligibility of the Project as a Public Undertaking and Official Development Assistance Agricultural statistical and economic analytical activities provide data and information which illustrate the real conditions of the agriculture and the farms as stated in 2-2-2. These data and information are indispensable for the proper policy/program formulation not only for the agriculture and related sectors but also for the broader social and economic development issues. The Government of Thailand including MOAC is formulating policies/programs for poverty alleviation and balanced development, which are core issues of the Ninth National Economic and Social Development Plan (October 2001 to September 2006), including agricultural productivity increase by guiding to desirable land use and crop selection, rural development, and regional disparity alleviation partly based on them. Since the Project aiming improvement of these activities for higher level of accuracy/ reliability and timely release, the Project has highly public nature and quite matches with the purpose of a public undertaking. These activities serve not only to the Government for the public policy formulation, but also to the people and the market for better decision making by dissemination of data and information. Basically they contribute to the economy of the nation equitably.

The Project intends to support the Government's regional cooperation activity by indirect manner which is to enhance OAE's capacity to operate AFSIT Center effectively by human resource development approach. Since AFSIT Center is the executive body of the AFSIS Project which is assisted by Japanese Government as stated in 2-5, the Project's feature of supporting AFSIT Center activities indirectly is in line with the Japan's policy of foreign assistance.

The Project aim conforms to the current Japanese development assistance policy to enhance information and communication technology (ICT) in developing countries since the Project achievement will form a part of the foundation of the information network in Thailand which is located in the priority region of the Japanese assistance.

6-1-2. Relevance with the Country Specific Assistance Plan

JICA prioritize the following 5 sectors for its cooperation with Thailand:

- Social Development Sector,
- Environmental Conservation Sector,
- Rural Development Sector,
- Economic Infrastructure Development Sector, and
- Regional Cooperation Sector.

This Project aims to contribute to the Rural Development Sector by the proper policy formulation support through timely provision of accurate agricultural statistical and analytical information.

6-1-3. Relevance to the Needs of the Recipient Country

As described in 3-2 MOAC has urgent needs to strengthen its capacity in planning and implementing their policies/ programs. For this purpose timely as well as accurate data/ information and results of economic analyses which would provide required information for comprehending the up to date real situation are essential for the appropriate policy/ program formulation. These data/ information are currently not available as required manner. In this respect the Project which undertakes these issues is well relevant to the needs of the Thailand.

At the same time, the Project aims to strengthen OAE's capability through development of its staff to meet with the requirements for the AFSIT Center operations. This is quite relevant to the needs of Thailand which is responsible for the AFSIT Center operations.

6-1-4. Project Planning by the Participatory Approach

The Project is formulated and designed by the meetings between Japan and Thai side and PCM workshop. Active participation by Thai side in these occasions enabled the Project to incorporate its intentions thoroughly.

6-1-5. Establishment of Appropriate Operational Organization

CAI under OAE is the main body of the Project implementation. It is the responsible organization for the statistical and economic analytical activities in OAE. It is also an executive body of the AFSIT Center. In the CAI special task force for the Project which is almost identical to the one for the AFSIT Center is going to be formed. This arrangement is advantageous for the Project to ensure the conduit of its capacity building efforts to the AFSIT Center operations and sustainability of the Project since the AFSIT Center, in which upgraded capability of CAI staff is required, is going to last after the Project completion.

6-1-6. Establishment of Monitoring and Evaluation System

As shown in the draft PDM (ANNEX-1) the Project incorporates the monitoring activities as its Activities. The monitoring activities are indispensable for the proper management of the Project as well as for the external monitoring and evaluation. The monitoring and evaluation have to be conducted even in the day to day operations with necessary feedback while the important evaluation and decision making require formal procedures.

Annual monitoring and evaluation shall be conducted by the Joint Coordination Committee, while JICA plans to dispatch 2 formal evaluation teams consist of mid-term evaluation team which is scheduled to be dispatched 2 and a half years after the commencement of the Project, and concluding evaluation team, of which dispatch timing is 6 months before the completion, during the Project period. The mid-term evaluation team aims to direct the Project to comply with the conditional changes and/ or desirable project design change if necessary based on the performance of the Project until the time. The concluding evaluation team is to evaluate the entire Project performance from various view points with figured out lessons useful for the future project implementations and to hand over the activities to the Thai side.

6-2. Effectiveness

6-2-1. Logical Integration of the Project

As described in 5 and shown in draft PDM (ANNEX-1) since all the 5 Outputs of the Project are expected to contribute to and to cover enough factors for the achievement of the Project Purpose, integration of the Project is obvious. The Project is well designed to pursue the Project Purpose by organized Outputs and their necessary activities which are distinctly and operatively coordinated for the achievement of the Outputs.

6-2-2. Adequateness of the Project Purpose

The Project Purpose "OAE is strengthened as a central institution for statistics information and economic analysis in terms of agricultural policy in Thailand and AFSIS" is an adequate and achievable objective for the Project considering the addressed problems and current situation described in 3 and the Project Activities described in 5 and shown in ANNEX-1.

It has to be noted that further elaboration of the indicator for the Project Purpose is necessary in terms of quality aspects and measurement.

6-2-3. Technical Advantage of Japan

Japan has a long experience in conducting agricultural statistical activities including rice crop as

national main staple grain for the producers/ consumers and related personnel as well as the policy planning and implementation. Its reputation is quite high with the steady endeavor for the accurate/ reliable information provision. It has been developed sophisticated data processing and utilizing system including the human based organizational network as well as the information network system.

Based on its practical experience in this field, it has advocating the upgraded statistical and analytical activity in agriculture in the ASEAN+3 region. It has been assisting the countries which were in need for the improvement in this field as stated in 3-4. Furthermore it has been conducting collective training programs for the agricultural statistics inviting trainees from the developing countries.

Japan has distinctive advantage in this field in which practical experiences and accumulated achievements have significance. Sufficient domestic support for the Project implementation such as the Japanese expert dispatching and receiving the trainees from Thailand is duly expected.

6-3. Efficiency

Equipment and materials to be provided to the Project by Japan are mainly for the upgrading of the data collection methods and analytical methods, for the establishment of the information network, and for training facilities and equipment. These are limited to duly essential and appropriate ones for the Project Activities without unnecessary items and volumes. There is no hindrance for the maintenance of the equipment since most of them are planned to be purchased in Thailand and the rest are being selected from the items which have supports in Thailand.

The Japanese long term expert team consists of a) Chief Advisor, b) Coordinator/Training, c) Data Collection/Information Network System, and d) Agricultural Statistical Survey. While the Chief Advisor take overall responsibility, other 3 experts covers 3 major corresponding fields of activities which are a) training, b) information network, and c) statistical data survey. Other 2 major activity fields are covered by the following manner: a) economic analysis is covered by the short term experts based on the past experience, and b) AFSIT Center related activities are covered by the collective efforts by the Japanese experts. Number and specialties of the Japanese Experts are adequate for the achievement of the Outputs.

Considering the ongoing rather decent practices of OAE regarding the agricultural statistics and economic analyses, practical training by the Japanese experts to the OAE staff is able to be expected higher efficiency for the upgrading. OAE executes standard statistical data survey and data processing. It is conducting ordinary economic analyses as a regular work and trial advanced analyses under the Japanese Expert's guidance. These may result in more efficient

Project achievement.

Planned training in Japan is adequate and advantageous for the Project, since the trainees are able to observe directly the Japanese sophisticated statistical and analytical activities as well as to have advanced lectures profitable for the practices. These may facilitate the technology transfer to be conducted during the Project.

6-4. Impact

6-4-1. Policy Impact

The improvement in accuracy/ reliability in agricultural statistics and agricultural economic analyses based on the accurate and appropriate data, information, and methodologies together with their timely publication are duly expected to contribute to more appropriate national policy planning.

6-4-2. Technical Impact

Diffusion of upgraded statistical and analytical activities to be practiced by OAE among AFSIS member countries is expected through AFSIT Center operations.

6-4-3. Economic Impact

Since appropriate agricultural statistical and analytical data/ information is expected to contribute for desirable natural resource allocation, productivity increase in agriculture and related industries, market efficiency increase through the improved national policy planning using the data/ information and the functional information available for the public, the Project may have positive impact to the national economy.

6-4-4. Confirmation of the Important External Assumption Linking the Project Purpose and Overall Goals

Drastic governmental policy change or significant depreciation of common value regarding the statistics and economic analyses in Thailand may hamper the contribution of the attained Project Purpose to the two Overall Goals. Also similar shift in ASEAN+3 countries may negatively affect. It is, however, not realistic to assume such conditional changes considering the trends in respective countries. Possibilities of the occurrences are quite low.

There is, however, "AFSIT Center is operated smoothly" as an important assumption in the draft PDM (ANNEX-1). Since the Project purpose of "OAE possesses technical capability for operating AFSIT Center effectively as the information and training center for AFSIS" is proved by the AFSIT Center performance which is outside the Project, it is important to carefully

monitor AFSIT Center activities and performance.

6-5. Sustainability

6-5-1. Institutional Capacity

Although it is unsatisfactory OAE is conducting extensive agricultural statistical survey and agricultural economic analyses as stated in 3-3. Also it is basically a large staff organization taking many responsibilities including policy planning and budget consolidation of MOAC. It has to be judged that OAE has enough capacity to implement the Project.

Since the Project is basically to develop the current activities of OAE, it is quite reasonable to expect that OAE shall maintain the result of the Project after the completion. It is also reasonable to expect further development since the Project may enhance the development capability of the OAE staff.

6-5-2. Financial Capacity

OAE is a large central organization with 684 staffs for policy/ planning taking important responsibilities in MOAC as stated in 3-1. Even though there are some constraints in budget allocation, OAE is able to assure the budgets and funds necessary for the Project. MOAC has clearly recognized the importance of the Project.

6-5-3. Social, Environmental, and Technical Acceptability

The Project less involves the social and environmental aspects for its acceptability. For the technical acceptance, OAE is assessed to have enough technical capability to accept the Project. It has practical experiences in statistical data survey and economic analyses and is aware of shortcomings of their operations. The planned Project staff is highly educated at least with bachelor degree implies their ability for the absorption.

6-5-4. Summary of Justification

Agricultural statistical and economic analytical activities provide data and information which illustrate the real conditions of the agriculture and the farm as stated in 2-2-2. These data and information are indispensable for the proper policy/ program formulation not only for the agriculture and related sectors but also for the broader social and economic development issues. The Government of Thailand including MOAC is formulating policies/ programs for poverty alleviation and balanced development, which are core issues of the Ninth National Economic and Social Development Plan (October 2001 to September 2006), including agricultural productivity increase by guiding to desirable land use and crop selection, rural development, and regional disparity alleviation partly based on them. Since the Project aiming improvement of these

activities for higher level of accuracy/ reliability and timely release, the Project has highly public nature and quite matches with the purpose of a public undertaking. These activities serve not only to the Government for the public policy formulation, but also to the people and the market for better decision making by dissemination of data and information. The Project is appropriate for the assistance of Japan, since relevant to the national policy and social needs of Thailand from these points.

The Project intends to support the Government's regional cooperation activity by indirect manner which is to enhance OAE's capacity to operate AFSIT Center effectively by human resource development approach. Since AFSIT Center is the executive body of the AFSIS Project which is assisted by Japanese Government as stated in 2-5, the Project's feature of supporting AFSIT Center activities indirectly is in line with the Japan's policy of foreign assistance.

Japan has a long experience in conducting agricultural statistical activities including rice crop as national main staple grain for the producers/ consumers and related personnel as well as the policy planning and implementation. Its reputation is quite high with the steady endeavor for the accurate/ reliable information provision. It has been developed sophisticated data processing and utilizing system including the human based organizational network as well as the information network system.

Based on its practical experience in this field, it has been assisting the countries which were in need for the improvement in this field as stated in 3-4. Furthermore it has been conducting collective training programs for the agricultural statistics inviting trainees from the developing countries.

Japan has distinctive advantage in this field in which practical experiences and accumulated achievements have significance. Sufficient domestic support for the Project implementation such as the Japanese expert dispatching and receiving the trainees from Thailand is duly expected.

The improvement in accuracy/ reliability in agricultural statistics and agricultural economic analyses based on the accurate and appropriate data, information, and methodologies together with their timely publication are duly expected to contribute to more appropriate national policy planning. Involvement of the Government of the Thailand in AFSIS is expected to be tightened by the effective AFSIT Center operations. Also the improvement has vast preferable influences on national socio-economy.

Although it is unsatisfactory OAE is conducting extensive agricultural statistical survey and agricultural economic analyses as stated in 3-3. Also it is basically a large staff organization taking many responsibilities including policy planning and budget consolidation of MOAC. It

has to be judged that OAE has enough capacity to implement the Project.

Since the Project is basically to develop the current activities of OAE, it is quite reasonable to expect that OAE shall maintain the result of the Project after the completion. It is also reasonable to expect further development since the Project may enhance the development capability of the OAE staff.

7. ANNEX

- 1. Draft PDM
- 2. Administration Map of AEZOs
- 3. The Comparison of Agricultural Economic Zone Staff
- 4. Project Framework
- 5. Counterpart List

ANNEX 1

Draft Project Design Matrix (PDM)

The Project for Agricultural Statistics and Economic Analysis Development

Original Version (Prepared on 2003.x.xx)

Version history: Non

Project Duration: July 2003 to July 2008

Target Group: The Office of Agricultural Economics (OAE)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Super GOAL Food Security in ASEAN+3 region is strengthened.			
 Overall GOAL Statistic information and methodology of economic analysis developed by AFSIT Center are utilized in ASEAN Member countries. Policies and programs for the agricultural sector are formulated and implemented by MOAC in more effective and efficient manners through accurate statistic information and economic analysis provided by OAE. 	 1.1 Number of access to the network from member countries. 1.2 Members use analysis method regularly. 2.1 Statistical data and analysis results are referred or used in policy papers prepared by MOAC. 	1.1 Network access data.1.2 Inquiry survey and policy document survey.2.1 Policy document survey.	
PROJECT PURPOSE OAE is strengthened as a central institution for statistic information and economic analysis in terms of agricultural policy in Thailand and AFSIS.	 Reliable statistics and analysis results are issued within month after the survey. ASEAN training is conducted effectively by AFSIT. Information Network functions properly. 	 Operational report and inquiry survey. Report and inquiry. Operational report and inquiry. 	
OUTPUTS <afsit center=""> 1. Human Resources of OAE are developed for Information Network System and agricultural economic analysis, mainly demand-supply forecasting, for ASEAN member countries. <oae> 2. Data collection methodology (mainly for paddy) in 9 Agro-Economic Zone Offices (AEZO) is improved. 3. Information Network System between OAE and 9 AEZOs is established.</oae></afsit>	 OAE has persons with the proper capability in INS for AFSIS. OAE has persons with the proper capability in economic analysis. Data survey is conducted properly with the introduced methodologies. Data collection period is shortened to Users are satisfied with INS. 	 1.1 Self and external assessments. 1.2 – ditto - 2.1 Operations monitoring. 3.1 Operational report. 3.2 Inquiry survey. 	OAE has good coordination with the relating organizations. AFSIT Center is operated smoothly.
4. Methodology of agricultural economic analysis is developed.5. Training capacity of OAE staff is developed.	 4.1 Outputs by the method are reported regularly. 4.2 Receive request for analysis times /year. 5.1 Properly conduct domestic training _ times/ year. 	4.1 Operational reports.4.2 Operational reports.5.1 Reports and inquiry.	

Activities

- 1-1 Build capability of OAE staff in order to establish, operate and maintain Information Network System (INS) for AFSIS
- 1-2 Build capability of OAE staff in order to modify Economic Analysis (EA) models for ASEAN countries
- 1-3 Develop OAE personnel's training capability in EA & INS
- 2-1 Introduce new data survey methodologies and improve current data collection methodologies
- 2-2 Conduct training of 9 AEZOs' staff for new and improved methodologies at OAE
- 2-3 Conduct field technical guidance to AEZO staff on the data survey
- 3-1 Design and establish Information Network System (INS) connection between OAE and AEZOs
- 3-2 Develop database system for INS
- 3-3 Conduct training for network management, database management, maintenance and utilization of INS.
- 4-1 Identify appropriate methodologies for OAE and develop particular models
- 4-2 Conduct users' training for the models
- 5-1 Plan and implement training courses
- 5-2 Evaluate training courses and develop manuals

< General Activities >

- 6-1 Establish required management and execution system
- 6-2 Set quantitative targets for indicators, and conduct baseline surveys as necessary

<u>Inputs</u>

(By Japan)

- 1. Long-Term experts
 - 1) Chief Advisor
 - 2) Project Coordinator/ Training
 - 3) Agricultural Statistical Survey
 - 4) Data Collection/Information Network System
- 2. Short-Term Experts

As necessary

- 3. Provision of following machinery, equipment, and other materials
 - 1) Computer systems.
 - 2) Vehicles
 - 3) Crop cutting tools.
 - 4) Other necessary machinery, equipment, and materials that may be mutually agreed upon.
- 4. Counterpart training in Japan
- 5. A part of local cost

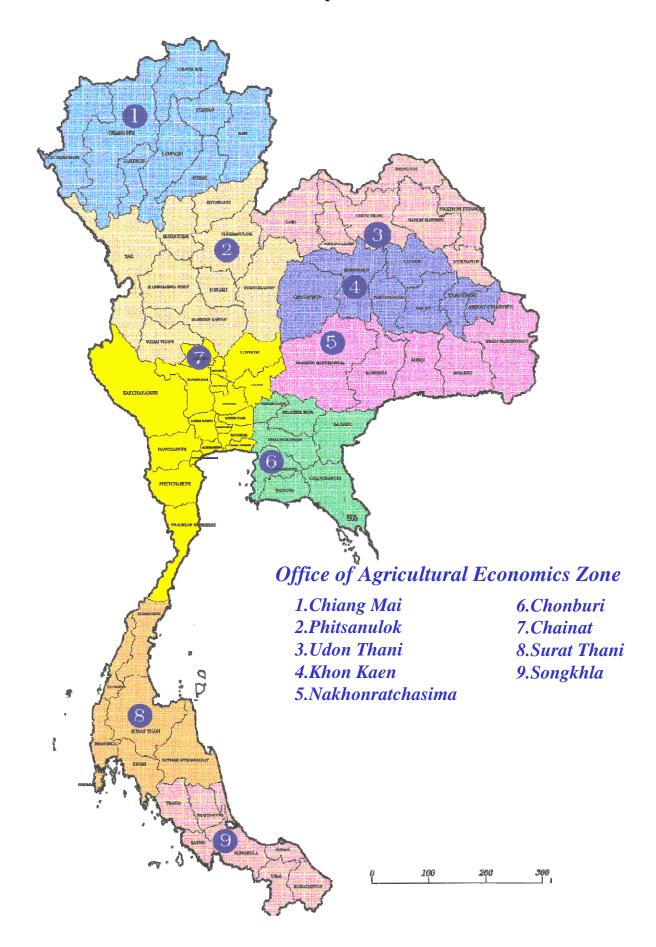
(By Thailand)

- Provision of land, buildings and facilities for the Project and project offices, experts' rooms and so on
- 2. Operational cost
- 3. Maintenance and repair cost for computers and equipment
- 4. Cost for conducting training
- 5. Assignment of counterparts to each Japanese expert and supporting staff

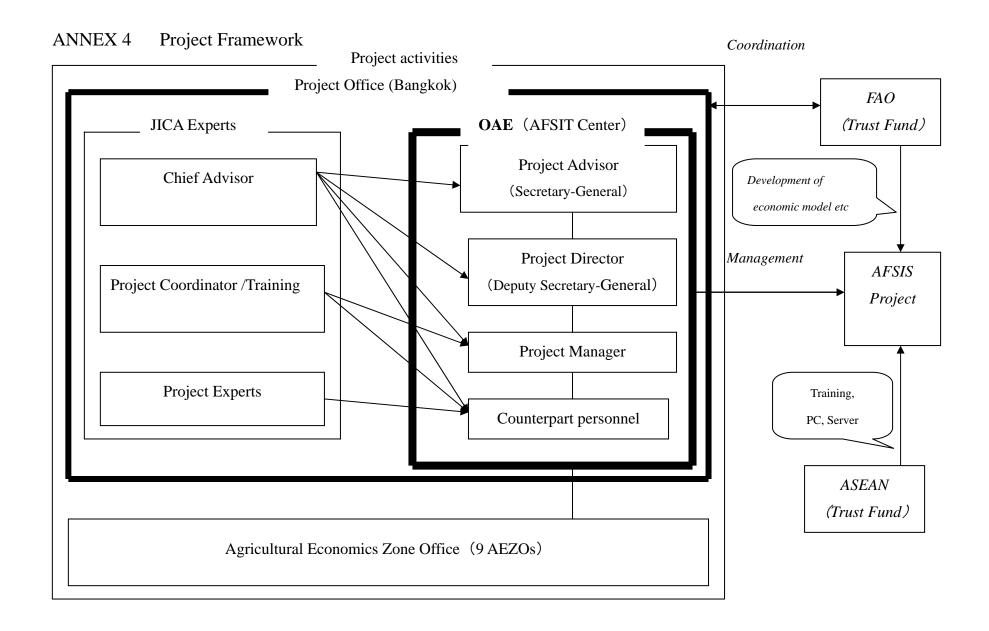
<< Preconditions >>

OAE accommodates
ASEAN Food Security
Information Training
(AFSIT) Center under
ASEAN Food Security
Information System
(AFSIS).

Administration Map of AEZO



	Before			After	-
Zone	Governm't	Permanent	Zone	Governm't	Permanent
	officers	employees		officers	employees
3.Chiang Mai	11	5	1. Chiang Mai	26 (10)	10
- Lamphun			- Chiang Rai, Lamphun		
- Mae Hong Son			- Uttaradit, Phayao		
2.Chiang Rai	10	5	- Lampang, Nan		
Phayao, Lampang			- Mae Hong Son, Phrae		
1. Phrae	7	3	mae mong bon, mae		
Nan,Uttaradit	,	3			
		- 10			10
Cotal	28	13		26	10
0.Phitsanulok	9	4	2. Phitsanulok	26 (10)	13
Phichit			- Phi Chit, Tak		
. Tak	9	3	- Sukhothai		
Kamphaeng Phet			- Kampaengphet		
Sukhothai			- Nakhon Sawan		
. Nakhon Sawan	9	4	- Uthai Thani		
	9	4	- Othai Thaiii		
Uthai Thani					
otal	27	11		26	13
. Udon Thani	9	6	3. Udon Thani	23 (10)	10
Loei, Nong Khai			- NongBua Lam Phu		
Nong Bua Lam Phu			- Nong khai, Loei		
	7	-			
. Nakhon Phanom	7	6	- Sakon Nakhon, Mukdahan		
Sakon Nakhon			- Nakhon Phanom		
Makdahan					
'otal	16	12		23	10
. Khon Kaen	11	4	4. Khon Kaen	22 (10)	10
Maha Sarakham	.=		- Amnat Charoen, Roi Et	"/	
Roi Et,Kalasin			- Kalasin, Yasothon		
		_	,		
. Ubon Ratchathani	9	5	- Maha Sarakham		
Yasothon					
Amnat Charoen					
otal	20	9		22	10
Nakhon Ratchasima	11	5	5. Nakhon Ratchasima	25 (10)	13
Chaiyaphum			- Chaiyaphum, Surin	25 (10)	
	10	_			
. Surin	10	7	- Sri Sa ket, Buriram		
Si Sa Ket			- Ubon Ratchathani		
Buri Ram					
'otal	21	12		25	13
9. Chon Buri	8	5	6. Chon Buri	23 (10)	10
Samut Prakan, Rayong			- Nakhon Nayok		
8. Chachoengsao	10	4	- Chachoengsao		
	10	4			
Nakhon Nayok			- Rayong, Chanthaburi		
Prachin Buri			- Samut Prakan, Sa kaeo		
0. Chanthaburi	7	4	- Prachin Buri, Trat		
Sa Kaeo, Trat					
otal	25	13		23	10
4. Chai Nat	9	7	7. Chai Nat	27 (12)	22
Sing Buri, Suphan Buri	,	,	- Sing Buri, Suphan Buri	2/ (12)	22
Ang Thong			- Ang Thong, Phetchaburi		
5. Pathum Thani	9	1	- Phra Nakhon Si Ayutthaya		
Phra Nakhon Si Ayutthaya			- Nonthaburi, Ratchaburi		
Nonthaburi			- Krung Thep Maha Nakhon		
Krung Thep Maha Nakhon			- Nonthaburi, Saraburi		
6. Ratchaburi			- Pathum Thani		
Kanchanaburi			- Kanchanaburi		
Prachuap Khiri Khan			- Prachuap Khiri Khan		
Phetchaburi			- Samut Sakhon		
7. Samut Sakhon	8	5	- Nakhon Pathom		
Nakhon Pathom	-	-	- Samut Songkhram		
Samut Songkhram			Samue Songamuni		
	2.5	12		2=	22
otal	26	13	0.0	27	22
I. Surat Thani	9	2	8. Surat Thani	22 (10)	6
Chumphon, Ranong			- Chumphon, Phangnga		
3. Phuket	9	5	- Phuket, Krabi, Ranong		
- Phangnga, Krabi, Trang		_	- Nakhon Si Thammarat		
otal	18	7	- AKION DI THUMMAN	22	6
			0. 0 111.		
2. Song Khla	9	4	9. Songkhla	22 (10)	8
Songkhla, Satun			- Phattalung, Yala		
Phatthalung			- Satun, Pattani		
4. Pattani	7	3	- Trang, Narathiwat		
Yala, Narathiwat					
	16	7	+	22	0
	16	1 7	1	77	8
Total Total	197	97		216 (82)	102



ANNEX 5 Counterpart List For ASEAD Project

Counterpart to Name Post

1) Chief Advisor	Mr. Montol Jeamchareon	Director of Center for Agricultural Information
2) Project Coordinator/Training	Mr. Prakobkit Phusirimongkol	Senior Statistics Technical Officer 8 Director of Agricultural Economics Information Division
3) Agricultural Statistical Survey 3.1) Survey Design	Miss Suraporn Issaradetkul	Senior Statistics Technical Officer 8 Director of Perennial Crop Production Information Division
3.2) Yield Survey	Mr. Chanchai Towiwat	Senior Statistics Technical Officer 8 Director of Crop Forecasting Division
4) Data Collection/Information Network	Mr. Porntep Sangsuwan (full counterpart) Miss Gulya Chatbusayamas (assistant) Mr.Suchart Phupang	Senior Statistics Technical Officer 8 Director of Information Technology and Agricultural Database Division Programmer 7 Programmer 6
5) Input-Output Analysis and Macro-Econon Modeling for Agricultural Sector	(assistant)	Policy and Plan Analyst 8