SOUTH SULAWESI REGIONAL AGRICULTURAL DEVELOPMENT PLANNING/ATA-140 PROJECT REPUBLIC OF INDONESIA

FINAL EVALUATION REPORT

by Japanese and Indonesian
Joint Evaluation Team

June, 1979

JAPAN INTERNATIONAL COOPERATION AGENCY

FORWARD

Cooperation activities under the South Sulawesi Regional Agricultural Development Planning commenced with the effectivation of R/D in December, 1976.

The purpose of the present project was, in short, to transfer planning techniques and the major activities included the transfer of techniques to collect and analyse data necessary for agricultural development of South Sulawesi (area: 72,781km^2) and also to prepare plans employing various planning methods. Further, the project was to teach the concept of planning through various activities such as seminars, classroom training and the acceptance of trainees.

This project involved five long-term experts formulating a master plan covering not only agriculture, forestry and fisheries but also social and economic aspects and distribution without adequate data in South Sulawesi occupying an area more than twice that of Kyushu (35,660km2) and, at the same time, transferring the planning techniques to their Indonesian counterparts. It was an extremely meaningful project; but it was, at the same time, accompanied by various problems.

Despite the difficulties, the project produced the results of more than 20 different kinds including the master plan in five parts, thanks to the enthusiasm and efforts put in by the Japanese and Indonesian officials concerned including the five long-term experts and their counterparts and also the short-term support experts.

In concluding the activities of the present project, our sincere thanks are expressed here to those Japanese and Indonesian officials concerned. It is hoped that the valuable results obtained under the present cooperation project will be effectively used for the development of agriculture in Indonesia.

Shoji KANATSU,

Director
Agricultural Development
Cooperation Department
JICA

PREFACE

The main objective of this project is to transfer planning techniques necessary for the formulation of the Regional Agricultural Development Project in South Sulawesi to those officials of the Indonesian Government who are in charge of planning. This project, which has been in progress since December, 1976, is scheduled to be completed in June, 1979.

The present report is intended to report on the outcome of the evaluation survey on the results of the project, which was conducted in March, 1979, by the Japan-Indonesia Joint Evaluation Team.

There are only a few cases reported of this type of project implemented for the purpose of transferring planning techniques, and the system of the planning method for technology transfer cannot be said to be adequate at the present juncture.

Accordingly, those who were in charge of the project were compelled to go through trial and error as the pioneer in many respects. The various results covered by the evaluation survey may be regarded as a milestone based on the accumulation of such trial and error.

On the other hand, the work to evaluate the results of such a novel project was also a pioneering work with trial and error. Technology transfer is similar to sowing in a farm. The real results of the work can only be evaluated when the seeds have grown to flower and bear fruit finally. Only what can be examined at the stage of sowing is: whether good seeds were chosen, was sowing properly done in a good soil, and where appropriate irrigation and fertilization provided? Our Survey Team has thus carried out the evaluation survey by its own method based on the above viewpoint.

The results of evaluation may be outlined in the two points below.

(1) The results of the project can be valued highly as a milestone of high practicality resulting from daily trial and error based on the actual condition of Indonesia. It is hoped that the results will effectively utilized in future.

(2) It seems that the extension of the project period by about 30 months is desirable.

For details please refer to the main text.

Finally, we wish to commend those officials from both countries who were in charge of the project for the efforts they have made and also to express our deepest thanks to those from related institutions for their cooperation in the evaluation survey.

We hope that the seeds sown this time will grow into a big tree which can contribute to the future development of Indonesia.

Nobuharu SASANO

Leader
The South Sulawesi
Regional Agricultural
Development Project
Evaluation Survey Team

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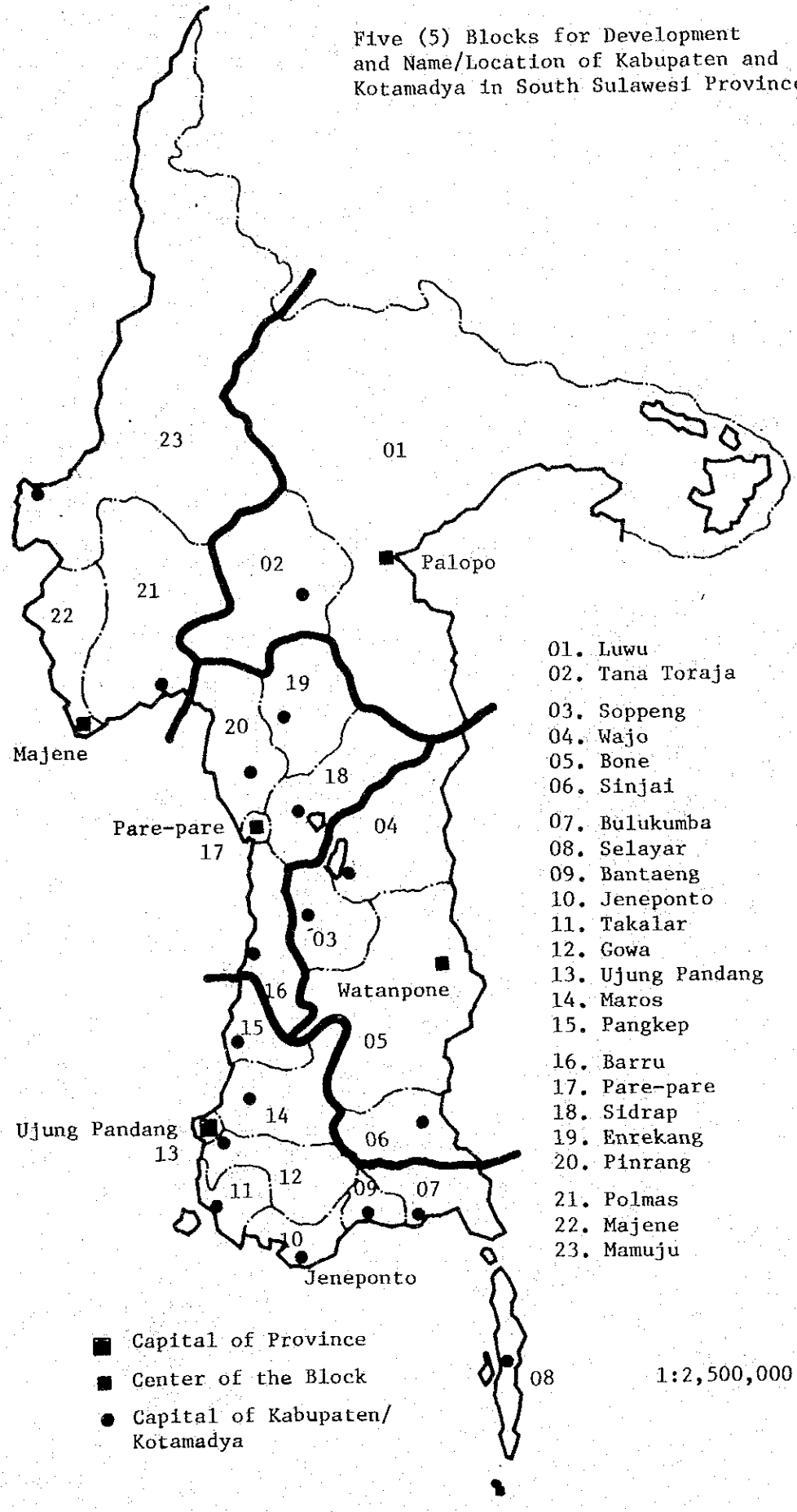
Five (5) Blocks for Development and Name/Location of Kabupaten and Kotamadya in South Sulawesi Province



PART I GENERAL

Chapter 1. Background and Purpose of the Dispatch of the Evaluation Survey Team - M.OTA -

The Japanese cooperation in the South Sulawesi Regional Agricultural Development Planning, which came into effect with the dispatch of Japanese experts on December 25, 1976, following the signing of the R/D, is scheduled to be completed on June 24, 1979

With the period of cooperation coming to an end, it will be not only useful for similar cooperation in future but also important as the place to exhibit comprehensive and common understanding of the project cooperation to carry out survey, analysis and evaluation jointly by the Japanese and Indonesian officials concerned to find out if the various cooperation activities for the main objective of the cooperation project, "Transfer of technology and knowledge for planning", have been adequate and effective in the light of the original objective based on the R/D. Further, it seems that through the process of putting the various evaluations in order and its results it will be possible to produce common understanding and the basic concept of future planning for the present project.

The present team is to have the following three objectives based on the above-mentioned basic approach:

1) To carry out survey, analysis and evaluation of various activities of the project and, at the same time, to point out the problems which may be improved and make suggestions as to the desirable direction and measures for improvement;

2) To study and to recommended as to the prolongation of the project period;

3) To collect data and to do a field survey for the compilation of a manual of regional planning which may be useful to both Japanese and Indonesian sides on the implementation of the project.

Chapter 2. Members of Teams and Survey Itinerary - M.OTA -

2-1. Members of Teams

2-1-1. Japanese team

Mr. Nobuharu SASANO (Team Leader)	:	Chief, Rural Planning Laboratory Land Improvement Division, National Research Institute of Agricultural Engineering, Ministry of Agriculture, Forestry and Fishery (MAFF)
Mr. Norito MURAOKA (Agricultural Economy)	:	Deputy Head, Economic Statistics Division, Statistics and Information Department, Economic Affairs Bureau, MAFF
Mr. Terushi EGASHIRA (Cooperation Planning)	:	Overseas Technical Cooperation Official, International Cooperation Division, International Affairs Department, Economic Affairs Bureau, MAFF
Mr. Mitsuhiko OTA (Coordination)	:	Chief in charge of the Project, Agricultural Technical Cooperation Division, Agricultural Development Cooperation Department, JICA
Mr. Hiroshi MATSUO (Physical Plan)	:	Physical Planner, Japan City Planning
Mr. Sachihiko KOBORI (Development Economy)	:	Development Economist, Japan City Planning

2-1-2. Indonesian team

Drs. Hendro Soewarno (Team Leader)	:	Project Manager, RADP/ATA-140 South Sulawesi, Bureau of Planning Department of Agriculture (D.A.)
Ir. Soedjarwo (Regional Planning)	:	Chief, Sub Division for Long Term Planning, Bureau of Planning, D.A.
Drs. N.A. Sanusi (Evaluation and Monitoring)	:	Chief, Sub Division for Evaluation and Monitoring, Bureau of Planning, D.A.

2-2. Period of Survey

21 days from March 1, 1979 to March 21 with the following modifications. Leader, Agricltural Economist, Cooperation Planner and Coordinator

: 3/1 - 3/17 (17 days)

Physical Planner and Development Economist

: 3/1 - 3/21 (21 days)

Chapter 3. Objectives and Method of the Survey - N.SASANO -

3-1. Objectives

The objectives of the survey are as follows:

1) To review and evaluate how the project activities are contributing to the agricultural development of Indonesia.

2) To examine the necessity of the prolongation of the project period .

3-2. Scope

3-2-1. Evaluation

The scope of the evaluation of this time is as follows:

(1) All the activities of Phase I (18 months). Namely,

1) Investigation and analysis of agriculture in South Sulawesi Province

2) Review of existing plans including the Second 5-year Plan (REPELITA II) of South Sulawesi Province

3) Drawing-up of agricultural development plans (sector plans)

4) Transfer of planning techniques through the above three stages

(2) Activities upto an intermediate period of Phase II (12 months). Namely,

Partial drawing-up of implementation plans including project preparation and feasibility survey.

3-2-2. Examination of the necessity of the prolongation of the project period

As mentioned above, the necessity of prolongation will be discussed.

3-3. Survey Method

3-3-1. Evaluation

The detailed method is as follows:

(1) To read and review various reports compiled as the results of the project activities.

(2) To hear the opinions of the persons in charge of the project. To provide a questionnaire for experts and counterparts for reference in the evaluation of the results.

(3) To have a discussion among experts, counterparts and the members of Evaluation Team.

(4) To arrange the opinions concerning evaluation, in reference to these results.

3-3-2. Examination concerning the prolongation of the project period

The detailed method is as follows:

(1) To make field reconnaissance on the proposed pilot test sites.

(2) To collect data and information necessary for the examination.

(3) To hear the opinions of the parties concerned.

(4) To arrange the considerations and opinions concerning the necessity of the prolongation of the project period.

3-4. Viewpoints of Survey

The detailed viewpoints are as follows:

3-4-1. Evaluation

(1) Contents of the reports as results of the project

1) Were the contents of the plans appropriate?

2) Were the contents of the reported survey results appropriate?

3-4-2. Transfer of technology

(1) Were the contents of technology transferred appropriate (did they suit the actual conditions of Indonesia and were they technically proper)?

(2) Was the method of transfer appropriate?

(3) Were the results of transfer significant?

3-4-3. Management of the project

(1) What kinds of management activities were provided?

(2) Were the management activities appropriate?

3-4-4. The detailed examination of the prolongation of the project period

(1) Is the prolongation of the project period necessary and proper?

(2) What is the feasibility in the respective pilot test sites?

Chapter 4. Background and Nature of the Project

- M.OTA and T.EGASHIRA -

4-1. Request to the Southeast Asia Project Finding Survey Team (Dec. 1972)

The national development plan at that time was the Second 5-year Plan (fiscal 1974-78) and the proposed project was also followed by the national development plan.

The Second 5-year Plan may be outlined as below.

4-1-1. Outline of the second 5-year plan

The Second 5-year Plan is intended to follow and develop the First 5-year Plan based on the five national principles of 1) Belief in God, 2) Nationalism, 3) Democracy, 4) Humanitarianism and 5) Social Justice. The Second 5-year Plan aims especially at solving those problems left unsolved under the First 5-year Plan such as increase in employment opportunities, promotion of business activities, equal distribution of the results of development, improvement in the market structure, promotion of rural development, etc.

Here the Plan is outlined with emphasis on agriculture.

(1) Basic objectives of agricultural development

In the First 5-year Plan, the emphasis was placed on agriculture, especially on food production. The importance of agriculture remains the same in the Second 5-year Plan as a means of solving various problems such as population increase, price stabilization, increase in employment opportunities, etc.

Accordingly, the rate of increase in agricultural production is to be 4.6% per annum and its ratio in Naitonal Product is to be 35% in fiscal 1978 (40% in fiscal 1973).

Actual measures are:

1) Improvement in the productivity of rice (per capita increase of 12.5% in five years);

2) Reduced dependency on rice by increased production of maize and sorghum;

3) Improvement and installation of irrigation facilities and the implementation of simple irrigation (improvement of terminal irrigation by labor-intensive method);

4) Promotion of labor-intensive production to increase employment opportunities, diversification of agricultural production and continuous utilization of agricultural labor force (adoption of livestock industry);

5) Training of new leaders in rural communities; and

6) Strengthening of various development assistance programs for villages, countries and provinces for the purpose of regional development.

(2) Position of agriculture in national finance.

As for financial expenditure in the First 5-year Plan, emphasis in the development budget was placed on the agricultural sector and its infrastructure (irrigation, roads, etc.).

This trend continued into the Second 5-year Plan with the emphasis placed on the agricultural sector and the processing industry, giving priority to economic development. Actual sectors with priority are agriculture, irrigation, rural development, transportation, etc.

4-2. Outline of the Proposed Project: Agricultural Development Study (ATA-63)

4-2-1. Scope and objectives of the project

This project is under the Presidential directive to formulate a regional development plan, the major task under the Second 5-year Plan, from the viewpoint of agricultural development, having the Ministry of Agriculture as the main planner in consultation with BAPPENAS.

Further, the project is:

(1) To formulate the most suitable agricultural production and market activities for each area in relation to the national agricultural policy;

(2) In parallel to the above, to advise and guide the local governments so that it will have the capability of planning and implementing agricultural development on its own;

(3) During the process, experimental implementation of part of the project by constructing a model farm, etc.

4-2-2. Relations with development projects outside the jurisdiction of the Ministry of Agriculture

It does not include regional development projects such as main irrigation channels settlement projects and others which are outside the jurisdiction.

4-2-3. Fields of experts required

Two experts on agricultural economy and regional development economy with a knowledge of market activities.

4-2-4. The authorities concerned

Planning Bureau of the Ministry of Agriculture as a rule, though other bureaus are called upon according to the needs.

4-2-5. Projected area of cooperation

South Sulawesi Province

4-3. Background of the Request for Cooperation

4-3-1 West German cooperation

Agricultural development cooperation with West Germany in West Sumatra is highly appreciated by Indonesia.

This cooperation consists of the Tani Makmur Project, agricultural development survey, rural communications and regional planning survey. The agricultural development studies, similar to the cooperation requested to Japan, may be outlined as below.

1) Collection of agricultural data;

2) Improvement in agricultural extension facilities;

3) Training of extension workers; and

4) Implementation of a pilot project.

Since the agricultural development studies cover not only small farmers but also livestock and small-sized estates, they come under the jurisdiction of the Planning Bureau of the Ministry of Agriculture.

4-3-2. The view of Drs. Ir, A.T. Birowo, Director of Planning Bureau, of Japanese agricultural cooperation.

Dr. Birowo is an influential brain in the Indonesian Ministry of Agriculture. He gave his analysis of Japanese agricultural cooperation in his lecture delivered on March 3, 1977, at the Japan-Indonesia colloquium which may be outlined as below.

(1) Present situation

At present there are three types of cooperation in agriculture between Japan and Indonesia: 1) private investments: 2) probject cooperation on a loan base; and 3) technical cooperation. Of these 2) and 3) are cooperation on a government-to-government basis. The objectives of these types of cooperation may be outlined as follows: 1) creation of new economic activities which provide the basis for the development of a new market and for promoting more wide-ranging economic development efforts; 2) production of low-cost commodities whether they are for the domestic or the foreign markets; and 3) transfer of technology and capabilities which may form the basis of more wide-ranging cooperation between the two countries.

(2) As of February, 1977, there were cooperation projects based on 38 private investments and 4 loan agreements, and 23 projects in technical cooperation; these projects concern cooperation in the agricultural sector. (See Table I-1)

Table I-1: Japan-Indonesia agricultural cooperation projects

Type of cooperation	Project	Funds (unit: $1,000)	
		Planned	Executed
Private investments	38	126,910	61,989
Cooperation projects on loans	4	8,047	8,047
Technical cooperation (grant)			
a. Projects completed	13	3,853	3,853
b. Projects in progress	10	11,315	
Total	65	150,125	73,889

* Note: 1. Including fisheries and forestry

2. Amount executed under technical cooperation (grant) is tentative.

As Table I-1 shows, the total investments in 65 projects amount to US$150 million of which $73 million have already been executed. The discussion below is based on the data obtained from the 65 projects.

3) Private investments (joint venture) cover 1) 7 projects concerning food crops, estate crops and livestock; 2) 15 fishery projects; and 3) 16 forestry projects. They account for 18% of the total foreign private investment projects, 17% of the total planned investments and 26% of the amount executed. Their geographical distributions are: Sumatra 6, Jawa 3, Kalimantan 10, Sulawesi 7, Maluku 6 and Irian Jaya 6.

4) 4 projects on loans have all been completed. They include 1 sugar refinery project in Bone, South Sulawesi, and 3 tuna fishery projects, which were located in different areas.

5) Completed technical cooperation projects include: 9 food crop projects, 2 fishery projects and 2 livestock projects. Those which are in progress are: 1 planning project, 2 food crop projects, 2 fishery projects, 1 livestock project, 2 fishery projects and 2 research projects.

(2) Major points at issue

1) Most of the problems arising from the implementation of a project may be avoided if a little more consideration is given in selecting and preparing the project. Those problems arising at the stage of selecting and preparing the project are caused by 1) difference between Japan and Indonesia regarding the priority and the objective; and 2) inadequate data for the feasibility study of the project.

From the Indonesian point of view, any cooperation with any country including international organizations has to be in line with the national development plan and contribute to the accomplishment of the final target.

This implies that priority assigned to the object, field of cooperation and the selection of area differs in each case.

It is possible that priority from the Indonesian point of view may not meet the Japanese private investor's minimum cost principle or correspond to the standard (priority) determined by Japan's overseas economic policy. Those projects approved are at least in formality to satisfy the common standard agreed upon by the two countries. However, if the project is formulated on inadequate data, it may select the wrong area, crop or operation.

2) It my be true that these problems will be even more complicated if there is not sufficient mutual understanding. In many projects it has been found that most Japanese experts can not fluently speak in English and or local languages. Since verbal communication is the basic means of mutual understanding, the lack of it has formed a detrimental factor in implementing projects such as the transfer of project techniques.

3) Though project management has so far been satisfactory, there were one or two cases of problems. They were due to the facts that there was discrepancy in fiscal year between Japan and Indonesia and that there was also difference in the procedure of decision-making. These problems were satisfactorily solved with mutual friendship and patience.

4) Other problems are related to technology transfer whether they are private investment projects or those on a government-to-government basis. In addition to the problem of communication mentioned under the paragraph 7, this problem is related to the method of technology transfer. The method of technical transfer is determined by the type of the technique or skill, duration of project cooperation and the nature of the cooperation. What is most necessary for agricultural cooperation projects is the transfer of knowledge relating to the training plan which can directly influence small farmers. This implies that further study will be necessary in the formulation of projects in future.

(3) Fields of future cooperation

1) Cooperation between the two countries is to be on the premise that both countries will be profitable from it.

In view of the strength of Japanese agriculture and the necessity of agricultural development in Indonesia, future cooperation between the two countries should aim at the strengthening of the family based agriculture.

2) In view of the priority in the economic development of Indonesia, future agricultural cooperation projects should place the emphasis on increased food production.

3) Future joint venture projects in agriculture should be carried out as integrated projects including production, processing and distribution of products.

4) As far as future development in agriculture is concerned, future cooperation should be carried out with the emphasis on the use of small-scaled agricultural machinery and equipment. The relative advantage of Japan's small scale agriculture with its appropriate techniques can help future agricultural development in Indonesia as an appropriate lesson.

4-3-3. Integrated regional development in Indonesia

The authority of planning integrated regional development in Indonesia is shared by BAPPENAS and the Ministry of Public Works. However, actual planning is carried out by the latter and the former is authorized to formulate the basic policy and has the right of selection in actual budgetting.

At present the Indonesian Government divides the country into four major development regions with each region further divided into two or three development areas. The major development regions have one development centers: Medan, Jakarta, Surabaya and Ujung Pandang.

This geographical division is featured by the setting up of development areas centering around those areas with access to sea transportation. Under the system of development areas the Indonesian Government has requested to international organizations and donor countries technical assistance for planning comprehensive regional development.

In response to the activities of BAPPENAS and the Ministry of Public Works, it seems that the Ministry of Agriculture made a request for assistance in regional development planning in agriculture on the basis of the argument that regional development is inconceivable without agriculture.

Fig.I-1. Development regions in Indonesia

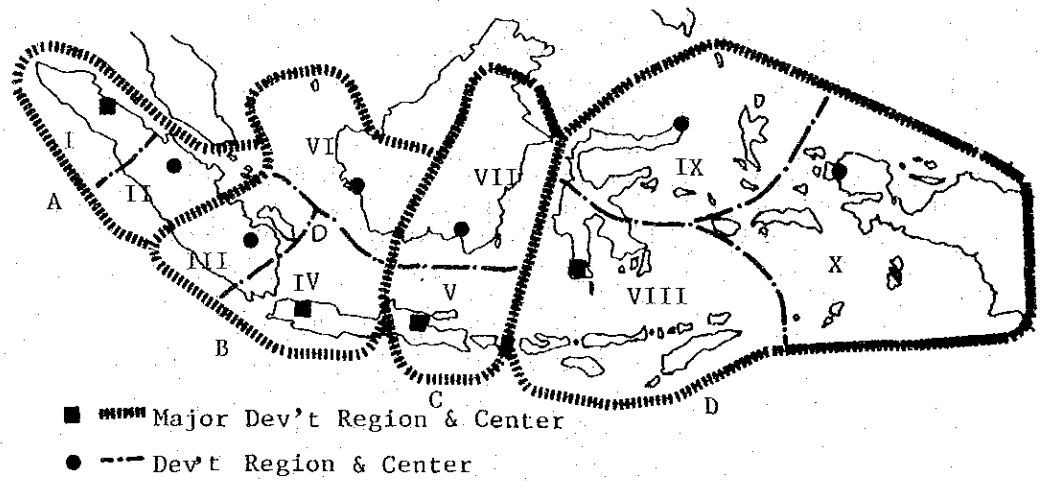


Table I-2: Progress in regional development planning under technical assistant

Name of the plan	Donor Country	Consultant	Project area	Year of commencement
Sumatra Regional Development Plan (north)	U.S.A.	PADGO	Aceh, North Sumatra, Riau	1972
West Pasaman Area Development Plan	W. Germany	Institute for Development Research	West Pasaman	1974
Sumatra Regional Development Plan (South)	World Bank	R.R. Nathan Inc.	Lampung, South Sumatra, Jambi, West Sumatra	1974
West Sumatra Regional Development	The Netherland	D.I.T.H.	West Jawa and Jakarta	1972
Jawa Regional Development Plan	Japan.	International Development Center	Central Jawa, East Jawa	1974
East Indonesia Regional Development Plan	Canada	State Government of Alberta	East and West Nusa Tenggara Maluku	1974
Sulawesi Regional Development Plan	Canada	State Government of British Columbia	Sulawesi	1975

4-4. Outline of the Regional Agricultural Development Planning ATA-140

4-4-1. Draft plan of ATA-140 project

In April, 1975, it was officially requested through the diplomatic channel that ATA-63 be changed to ATA-140.

Upon the request, the preliminary survey team for the South Sulawesi Regional Agricultural Development Planning was sent from November 26 to December 12, 1975. Contents of ATA-140 at that juncture were as follows:

(1) Objectives of the project

The cooperation project for the Regional Agricultural Development Planning: ATA-140 consists of two phases: the Project Planning Phase and the Project Preparation Phase. For the Project Planning Phase a period less than 18 months and for the Project Preparation Phase a period of less than 12 months are allocated.

The main objectives of the project may be outlined as below.

1) To cooperate in the improvement in the method and techniques of regional agricultural development planning;

2) To cooperate in the planning of a model regional agricultural development plan and in the implementation of an experimental project;

3) To cooperate in the preparation of a guide line necessary when the agricultural development project formulated above is implemented by the related agricultural authorities or the provincial government alone and for adjustments in the case of requesting cooperation from the foreign government concerned; and

4) To cooperate in the improvement if the techniques of preparing plans necessary for formulating those projects in various sub-sectors of agriculture and also in project evaluation techniques.

This regional agricultural development planning covers agriculture, forestry, fisheries and livestock.

(2) Major operations of the project

The major operations of this cooperation project may be outlined as below:

1) The South Sulawesi Regional Development Plan (5-year Development Plan of South Sulawesi Province) has already been formulated by BAPPEDA of South Sulawesi. This project is to examine whether the plan has been formulated appropriately and whether there are defects in implementation;

2) In addition to various cooperation projects with foreign countries, there are national and provincial projects are in progress. This project is to examine whether these projects are appropriately planned and implemented; and

3) While providing technical guidance and advice for those provincial and local officials of South Sulawesi who are engaged in the implementation of experimental projects in Kabupatens of Jeneponto and Takalar, which are to serve as a guiding line for the South Sulawesi Regional Development Plan, this project is to improve the technical capability regarding the method of planning, method of re-examining existing plans and the method of implementing projects under these plans.

(3) Operational schedule

As has been described above, this project may be divided into two phases: Project Planning Phase and Project Preparation Phase. Actual operation and duration in each phase may be summarized as below.

1) Project preparation phase

i. Scope of operation

a. Guidance and advice regarding the review of the South Sulawesi Regional Development Plan formulated by BAPPEDA of South Sulawesi Province;

b. Guidance and advice regarding the formulation of a model plan necessary for the implementation of experimental projects in Jenepont and Takalar.

These experimental projects may form a guiding line for South Sulawesi regional development. Accordingly, adequate study is to be made at this juncture regarding the cooperation in the implementation of the projects in Jeneponto and Takalar, dispatch of short-term experts and the purchase of equipment.

As Jeneponto and Takalar have been selected by the present survey team.

ii. Duration

It is assumed by the Planning Bureau that it will take about 18 months for Indonesian personnels to absorb the above-mentioned techniques with the period set from July 1, 1976, to December 31, 1977. It is possible to shorten the period and move on to the next phase at an earlier date; this depends entirely upon the capability of Japanese experts for technology transfer and that of Indonesian counterparts for absorbing techniques.

2) Project preparation phase

i. Scope of operation

a. Guidance and advice regarding the implementation of experimental projects in Jeneponto and Takalar;

b. Guidance and advice regarding the planning of experimental projects in other areas.

ii. Duration

It is assumed by the Planning Bureau that it will take about 12 months for Indonesian personnels to absorb the above-mentioned techniques with the period set from January, 1978.

It should be added here that as the survey team gave its views on the period of cooperation, the Planning Bureau stated that since the purpose of this project was to improve the technical capability of Indonesian counterparts, it would take 2 1/2 years in view of their absorbing capability.

(4) Scope of Japanese cooperation

As for the scope of Japanese cooperation, dispatch of experts, provision of equipment and materials and training of personnels may be mentioned. The scope may be outlined as below.

1) Dispatch of experts

Throughout the two phases, project planning and project preparation, the dispatch of the following experts may be adequate:

i. Advisor (Team leader): (Stationed in Jakarta)

ii. Agricultural economy: (Ujung Pandang)

iii. Agronomy: (")

iv. Regional planning: (")

2) Provision of equipment and materials

i. Provision of office equipment

Since the project concerns cooperation in planning, it requires the collection and distribution of a vast amount of information such as basic data and draft plans. Accordingly, it is necessary to purchase office equipment such as a copying machine and a portable electronic computer. As far the survey team could gather, the Department of Agriculture of the Province was not equipped with copying machines or satisfactory computers; the survey team was often unable to obtain data upon request.

ii. Provision of observation equipment

Donation of meteorological observation equipment necessary for obtaining basic data for planning.

iii. Provision of vehicles

Donation of vehicles (Jeep) necessary for field survey and consultations with various institutions.

iv. Provision of agricultural equipment and materials

Donation of agricultural machinery, equipment and materials necessary for implementing experimental projects.

v. Operational expenses

Of the expenses necessary for project operations inside Indonesia such as travelling expenses of experts (including short-term experts), those which cannot be borne by the Planning Bureau or the provincial government are to be met with.

3) Provision of training

As in the cases of other cooperation projects, the Planning Bureau hopes that training be provided at a rate of 30 man-month in Japan, Philippines and Malaysia. The survey team explained that though training in Japan would be possible, that in third countries would be difficult at this stage, but there was room for further study.

In view of the wishes of the Planning Bureau, it seems necessary to study the possibility of arranging training in third countries.

(5) Arrangements on the Indonesian side

In order to carry out this cooperation satisfactorily, it is necessary for the Indonesian side to make arrangements as to the assignment of necessary Indonesian counterparts and the provision of buildings.

1) Assignment of Indonesian personnel

The Planning Bureau proposed that the following personnels from the Bureau and related Departments be deployed:

i. Counterparts throughout the entire eperiod: 3

ii. Counterparts as the need arises: 3

iii. Secretary: 1

iv. Drivers: 2

When the survey team carried out the field survey, it was accompanied by one official each from the Planning Bureau and the Department of Food Crops.

2) Facilities, etc. to be provided by the Indonesian side

The following may be considered as those facilities to be provided by the Indonesian side:

i. Office (Jakarta and Ujung Pandang)

ii. Warehouses for agricultural machinery and equipment, agricultural chemicals, fertilizer, etc.

iii. Office equipment

iv. Garages

v. Maintenance expenses of vehicles (Jeep) and agricultural machinery and equipment.

vi. Project operating costs.

4-5. South Sulawesi Regional Agricultural Development Planning

Consequently, R/D was signed excluding experimental projects. Since both parties had no experience in this type of project, there was no detailed understanding for either party as to the interpretation of "implementation plan including project preparation and feasibility study" under the Scope of Activities under the Master Plan in R/D. This was often the subject of discussion especially between JICA Headquarters and the expert team at the project site.

Further, halfway through, the Indonesian side became positive about experimental projects and requested the implementation of experimental projects in the expended phase in the R/D. The basic plan agreed upon in the R/D may be outlined as below.

4-5-1. Objectives

This Project, with a view of contributing to promotion of regional agriculture, is intended to make over-all review of the plans for the development of agriculture in the Province of South Sulawesi, to give advisory guidances on them, to possibly improve methods and techniques of planning for the development of regional agriculture and thereby to improve the planning capabilities of the officials in charge.

4-5-2. Scope of activities

(1) The Project consists of the following four (4) stages;

1) survey and analysis concerning agriculture in the Province of South Sulawesi,

2) review of the Regional Development Plan formulated by the BAPPEDA and of other existing projects, and recommendation thereon,

3) drawing-up of sector plans in conformity with the Plan mentioned in Paragraph 2),

4) drawing-up of the implementation plans including project preparation and feasibility study for agricultural development projects in certain regencies in conformity with the said plans.

(2) Training activity will be carried out throughout all the stages of the Project.

4-5-3. Japanese experts

Category	Field	No.
Advisor		1
Experts	Agricultural economy	1
	Agronomy	1
	Regional agricultural plan	1
Coordinator/Liaison officer		1

Note: 1) The advisor will be attached to the Bureau of Planning of the Ministry of Agriculture.

2) A leader will be nominated from among the experts.

3) Short term experts may be dispatched on an ad hoc basis.

PART II MAIN REPORT

Chapter 1. Summary of the Results. - N.SASANO -

1-1. View of the Joint Evaluation Team

The Note of Understanding reached by the Team is given below.

NOTE OF UNDERSTANDING OF THE JOINT EVALUATION FOR THE RADP/ATA-140 PROJECT

C O N T E N T S

NOTE OF UNDERSTANDING

1. Introduction

1.1. The RADP/ATA-140 project in South Sulawesi started since December 25, 1976 based on the Record of Discussions between the Japanese Agricultural Survey Team and chief of the Bureau of Planning signed on May 4, 1976.

1.2. The project will be implemented for the period of 30 months starting from the arrival of the experts to Indonesia, and will be terminated by June 1979.

1.3. The objectives of this project, with a view of contributing to promotion of regional agriculture, is to make over-all review of the plans for the development of agriculture in the province of South Sulawesi, to give advisory guidances on them, to possibly improve methods and techniques of planning for the development of regional agriculture and thereby to improve the planning capabilities of the officials in charge.

1.4. The project had been divided into two phases, phase I for the period of 18 months starting from January 1977 up to June 1978, and phase II started from July 1978 up to June 1979.

1.5. Phase I according to the plan of operation cover the survey and analysis concerning agriculture in the province of South Sulawesi, review of the existing Regional Development Plan, and drawing-up of sector plans.

Phase II according to the plan of operation cover the drawing-up of the implementation plans including project preparation and feasibility study for agricultural development projects.

1.6. To have an idea concerning the impact of the RADP/ATA-140 project in South Sulawesi and its contribution to the development of South Sulawesi, an evaluation team consisting of experts from the government of Japan and the government of Indonesia was dispatched to evaluate the project.

2. Objectives of the Evaluation

2.1. To identify and to evaluate the implementation of the RADP/ATA-140 project in South Sulawesi and its contribution to the regional development.

2.2. To discuss the matters concerning the prolongation of the RADP/ATA-140 project in South Sulawesi.

3. Methodology of evaluation

3.1. Report reading from phase I and phase II, and other information from the project.

3.2. Meetings and exchange of minds with the officials in central as well as in the provincial level.

3.3. Meetings and discussions with all Japanese experts working in the project.

3.4. Meetings and discussions with all Indonesian counterparts working in the project.

3.5. Preparing, analysing and evaluating questionnairs for the experts and counterparts.

3.6. Field trips to visit the areas proposed pilot test.

4. Project Activities

4.1. The project activities consists of the following four stages;

(1) survey and analysis concerning agriculture in the province of South Sulawesi,

(2) review of the regional development plan formulated by the BAPPEDA and of other existing projects, and recommendations thereon,

(3) drawing-up of sector plans in confirmity with the plan mentioned in paragraph (2),

(4) drawing-up of the implementation plans including project preparation and feasibility study for agricultural development projects in certain regencies in conformity with the said plans.

4.2. Training activity will be carried out throughout all the stages of the project.

5. Summary of the main findings

5.1. The RADP/ATA-140 team in South Sulawesi has carried out a good job in comprehensive data collection for the whole province with the assistance of short-term experts and their counterparts.

5.2. The data collected have been successfully processed and analised for the comprehensive agricultural situation in the province and used as the basic data to draw-up the Master Plan, though some data were left not to be processed due to the limited time during the phase I.

5.3. The RADP/ATA-140 team in South Sulawesi has reviewed the agricultural part of the REPELITA II and other existing projects such as BIMAS/INMAS program, livestock project by the World Bank, Luwu development project and the central South Sulawesi water resources development project by Japan, and so forth.

5.4. As the result of the activities in the phase I (18 months), the RADP/ATA-140 team in South Sulawesi has succeeded in making up the Master Plan, from Volume I to VI, and other numerous valuable

materials.

5.5. Phase II, started from July 1978, had only 8 months in preparing detail study of feasibility study for 2 districts, Enrekang and Jeneponto.

The evaluation team is expecting that the rest of the term could be used for completing feasibility studies in both districts.

5.6. The RADP/ATA-140 team in South Sulawesi succeeded in giving recommendations to both governments in the form of pilot projects in both districts.

5.7. On-the-job training for the counterparts by means of transfer of knowledge had a good success. The counterparts will be ready to do the same job for regional planning in the future as expected by both governments.

5.8. Thirteen counterparts had opportunities of training in Japan, through the RADP/ATA-140 project in South Sulawesi.

The result of the training in Japan were very useful, however the Indonesian government has requested to get more chances to the counterparts to have the opportunities to study in Japan and/or in other third countries.

5.9. The communication between the Japanese experts and the Indonesian counterparts was good, and they had better understanding to each other.

5.10. The comparative study tour to other provinces for the experts, the counterparts, the officials of the province of South Sulawesi and of central level, had a good effect on better understanding and better preparation of the Master Plan in South Sulawesi.

5.11. Bloc III as suggested by the RADP/ATA-140 team in South Sulawesi for further study in the next program had been supported by the Joint Committee.

5.12. The provincial and central government of Indonesia have requested the prolongation of the RADP/ATA-140 project in South Sulawesi for another more than two years to carry out the pilot tests.

A new project proposed expected to be finance of through grant-in-aid and technical cooperation by the government of Japan in the form of An Integrated Agricultural Development Planning, will be formulated, and submitted to BAPPENAS (Central Planning Agency) for consideration, in order to utilize the result of the RADP/ATA-140 project.

6. Conclusion and Recommendations

6.1. The evaluation team regarded that the reports prepared by the Japanese experts and Indonesian counterparts are good for the basic planning preparation and for regional planning.

6.2. Pilot tests as part of the feasibility study in the two districts, Enrekang and Jeneponto, should be implemented as the final stage of the RADP/ATA-140 project in South Sulawesi.

6.3. The period of prolongation is necessary for thirty months.

6.4. The number and specific fields of experts may be modified in a way that they could continue the feasibility study including the pilot test.

6.5. Six long-term experts including an advisor and a team leader with the composition as follows were recommended by the evaluation team for the next program.

Short-term experts may be dispatched on an adhoc bases.

(1) Advisor.

(2) Team Leader.

(3) Long-term expert: Aforestation.

(4) -ditto- : Grassland improvement.

(5) -ditto- : Agronomy (Citrus).

(6) -ditto- : Liaison officer.

6.6. It is desirable to make more oppotunities for the counterparts to join the observation study and/or the comparative study.

6.7. Equipments and other facilities are also required for the prolongation stage.

Ujung Pandang, March 12, 1979.

THE JOINT EVALUATION TEAM,

IR. SOEDIRO SOEWARNO DVH,
The Indonesian Team Leader

NOBUHARU SASAKIO.-
The Japanese Team Leader

DR. A.T. BIROWO
Approved by chairman of the Joint Committee

1-2. Summary of the View of the Japanese Evaluation Team

1-2-1. General evaluation

(1) The results of the formulation of the master plan amount to a good achievement. In addition to the concrete presentation of the formulation of the plan, the separate manual of planning techniques, systematic compilation of data and maps and the survey and analysis of the agricultural situation in the province form a major contribution to the future agricultural and forestry administration of Indonesia.

The formulation of the master plan proceeded in the form of a by-product of the transfer of planning techniques and the plans were presented as alternative plans. Consequently, it may lacked the strong appeal as an actual practical plan. But considering the nature of the project and the background of the management this seems to be natural outcome.

Further, the results forms only a part of the total field of regional agricultural plan. This also seems to be natural in view of the fact that the planning was carried out while limplementing technology transfer under the restrictions caused by the capacity of counterparts, time and labor.

The Evaluation Team wishes to commend on the efforts made by both expert and counterpart teams and hopes that the results of these trial and error will be effectively utilized in similar projects in future.

(2) The results of the technology transfer were not on the scale of "transferring the most advanced planning techniques to a great number of counterparts"; the scope was limited to the "transfer of the practical techniques to a limited number of counterparts". However, these results are highly practical ones arising out of the ingenuity and efforts made on the part of those in charge of the project.

The reason for the limited scope of technology transfer was that the method of transfer was mainly based on on-the-job training in accordance with the original plan. The another significance of the technology transfer is that valuable experience and data were obtained which could be effectively utilized in carrying out classroom training in future.

(3) The amount of efforts made and the ingenuity put in on a trial-and-error basis by those people concerned in the management of the project was great. Despite such efforts, management were not necessarily satisfactory in every aspect and there seems to be some room for improvement, though this was due to the circumstances. The experience gained from the project will no doubt serve as a lesson for future.

Another problem was that the articles in the Record of Discussions left room for different interpretations and expectations. It is hoped that this problem will be taken into consideration at the starting of a project in future.

(4) With regard to the prolongation of the project period, it is necessary to extend it by about 30 months to conduct a pilot test as a step to complete the feasibility survey which is being delayed.

1-2-2. Recommendations.

(1) Preliminary steps prior to the commencement of the project.

It is desirable to take preliminary steps such as collection of regional data and maps by sending a survey team prior to the commencement of a project. It may also be desirable to send some researchers who stay and research on a long-term basis so that he may be able to provide information on the actual condition of the country concerned beside carring his research. The Survey Team will be able to use the survey period more effectively by taking these steps.

(2) Examination of the capability of personnel and training prior to the commencement of technology transfer.

It will be very useful to examine the capability (particularly in respect of basic planning techniques and languages) of both experts and their counterparts and provide training if it is found to be necessary.

(3) Concurrent use of the classroom training method in technology transfer.

It will be worthwhile to use the classroom training method concurrently to transfer techniques to as many counterparts as possible. For that purpose it will be useful to establish a permanent training center for regional agricultural development planning and prepare a suitable textbood.

(4) Study of the method of management for this type of project.

It is hoped that thorough study will be made, making use of the experience gained from this project, on the formulation of articles in R/D for this type of project, transmission of information and the mechanism of decision making in project management.

Chapter 2 Contents of Project Activities - M.OTA -

2-1. Phase I Activities

The cooperative activites of Phase I, which attained the mutual concent of Japan and Indonesia in the first Joint Committee held on January 10, 1977, largely consist of the following three categories: 1) Survey and analysis of South Sulawesi Provincial agriculture, 2) Study and analysis of the regional development plan, and the supplementary survey, and 3) Training of the project formulation technicians. The survey was conducted 39 times with 222 members spending 138 days in 1977. In 1978, it was conducted 23 times with 72 members spending 50 days. Thus the survey was made 62 times in all, taking 294 members and 188 days. The figure used in each survey below refers to that of 1977. (Refer to Table II-1 relevant to schedule).

2-1-1. Survey and analysis of South Sulawesi Provincial Agriculture

(1) Existing data collection

The data collection was planned to be completed within the first 3 months at the beginning of the project, however, its full-scale activity commenced only in the middle of February. Its period thus had to extended till October. They adopted the method of collecting the existing data by way of visiting governmental branch offices on the level of province, ministry and board in the capital city Ujung Pandang and by way of visiting each Kabupaten while performing their basic survey.

(2) Field reconnaissance and observation

It was scheduled to be conducted during Feb. - Mar. at the same time of the data collection, which however did not work out due to the temporal and physical restrictions (shortage of cars). It was thus decided to be done at the time when visitors such as survey teams were to be introduced to the field sites, aiming at two-birds-one-stone solution. (Conducted 8 times, with 57 men for 15 days, costing 132 man-days)

(3) Basic survey

At the outset, it was scheduled to be carried out for 5 months during April - Aug. synchronically with the data processing and preparation, which was however compelled to be changed due to the Indonesian President election, etc. which confined our survey activities.

It was in the middle of November when the basic survey of 21 Kabupatens/special cities out of 23 Kabupatens/special cities in the Province was finished. We gave up to work on the rest of 2 Kabupatens (Mamuju and Selayar) which are located in the remote regions because wet season started. (11 times, 76 men, 40 days, 288 man-days)

(4) Other surveys

1) Sampling survey

It was performed in the central Kabupaten of each block by the counterparts' team with a view to transferring the techniques of the survey method and data collection during the above mentioned basic survey period. (5 times, 20 men, 15 days, 65 man-days)

2) Comparison with the other projects

The present project is a sub-project of ATA-140 Project (Regional Agricultural Development Planning Project) which is a national project. In addition to this, there are two other projects, i.e. the West German Cooperative Project working in East Sumatra and East Kalimantan and the Taiwanese Cooperative Project working in Eastern Jawa in 1977. They called Economic Planning Agency in Jogjakarta Regional Development Plan formulated by itself. (2 times, 19 men, 7 days, 84 man-days)

They visited and observed the West German Cooperative Project in 1978, and exchanged their views on the project cooperation methods, particularly on the cooperative methods in the stages after a project is formulated.

3) Production cost survey

Production cost survey was carried out in 12 Kabupatens/special cities while working on the sample collection and the transferance of techniques during the basic survey period. (11 times, 10 men, 12 days, 120 man-days)

4) Social and economic survey

It was executed in 8 Kabupatens as a part of the survey of the farmers' intentions. (1 time, 2 men, 17 days, 34 man-days)

5) Data processing and preparation

It was intended at the beginning to be performed during April - Aug. at the same time of the performance of the basic survey. However, since a considerable weight was given to the data collection, the time for data processing and preparation came to be limited, which began only with the entry in May. After all, it was over in March 1978.

2-1-2. Study and analysis of regional development plan and supplementary survey

(1) Review of the existing projects

The content of "Existing Project" used in R/D was not clear enough, so the supplementary survey was made with the help of the short-term experts in their own fields of specialization.

1) Supplementary survey

It was implemented during Nov. - Dec. by the short-term experts in their specialization. (11 times, 38 men, 32 days, 104 man-days)

2) Clarification of problems and recommendations

This work was performed during Nov. 1977 - 1978, after the results of each operation mentioned above and the intermediate results came out.

2-1-3. Training of project formulation technicians (Refer to the Fig. II-1)

The aforementioned survey and each operation were all conducted in cooperation with the counterparts. Training was done in the form of on-the-job training as to each item and field. And the training of the overall plan was decided to be offered in the classroom.

2-1-4. Other activities

They held 4 Joint Committees, 11 Steering Committees and 3 Seminars, wherein they tried to look at and understand the needs of the Indonesian side.

By observing the overall activities of Phase I from the temporal viewpoints, the Master Plan was scheduled to be finalized in June 1978, but various restrictive factors worked, and it was rescheduled to be completed sometime around September with the approximate delay of 3 months. Later on, a need arose to highten the precision of the finalized results, and the Master Plan which met necessary corrections was finally over in February 1979. Fig. II-1 and II-2 show the sequence and contents of the operations in producing the Master Plan.

Table II-1 Implemented Working Schedule of the Team for Phase I

Note: 1) ····· : Original Schedule, 2) ▬▬ : Implemented Schedule

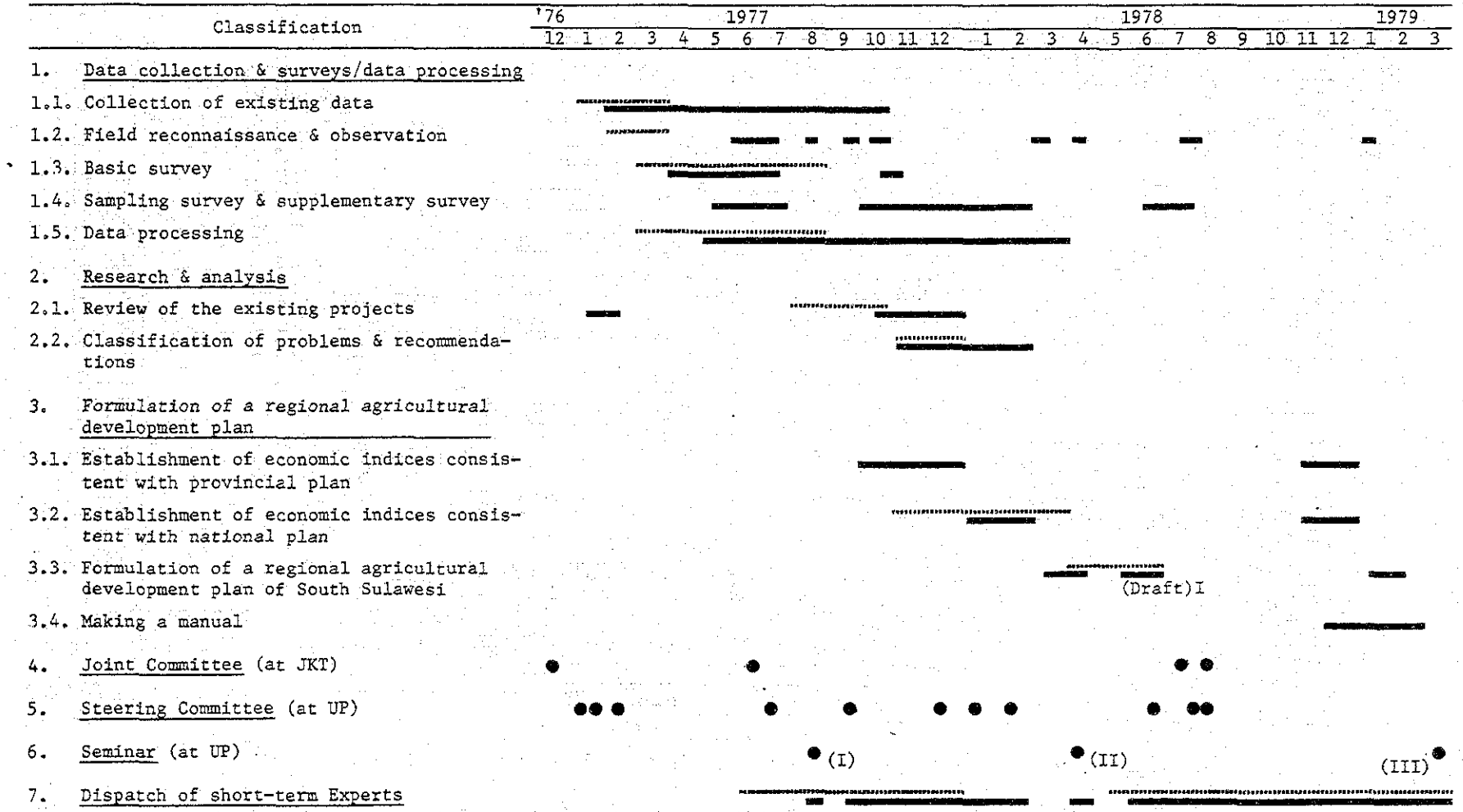


Fig. II-1 Implemented Basic Frame of Operation & Procedure of Training for Phase I

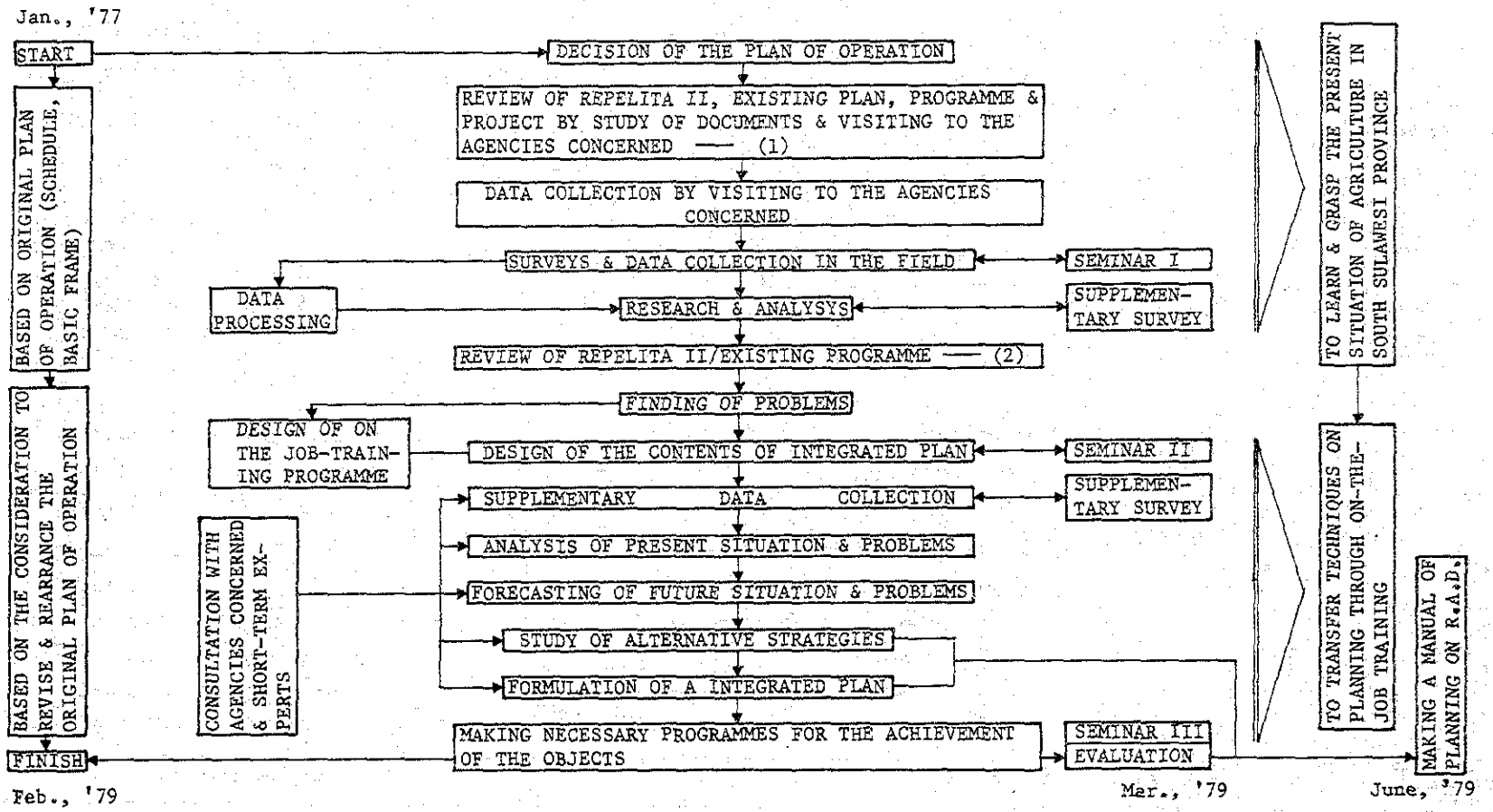
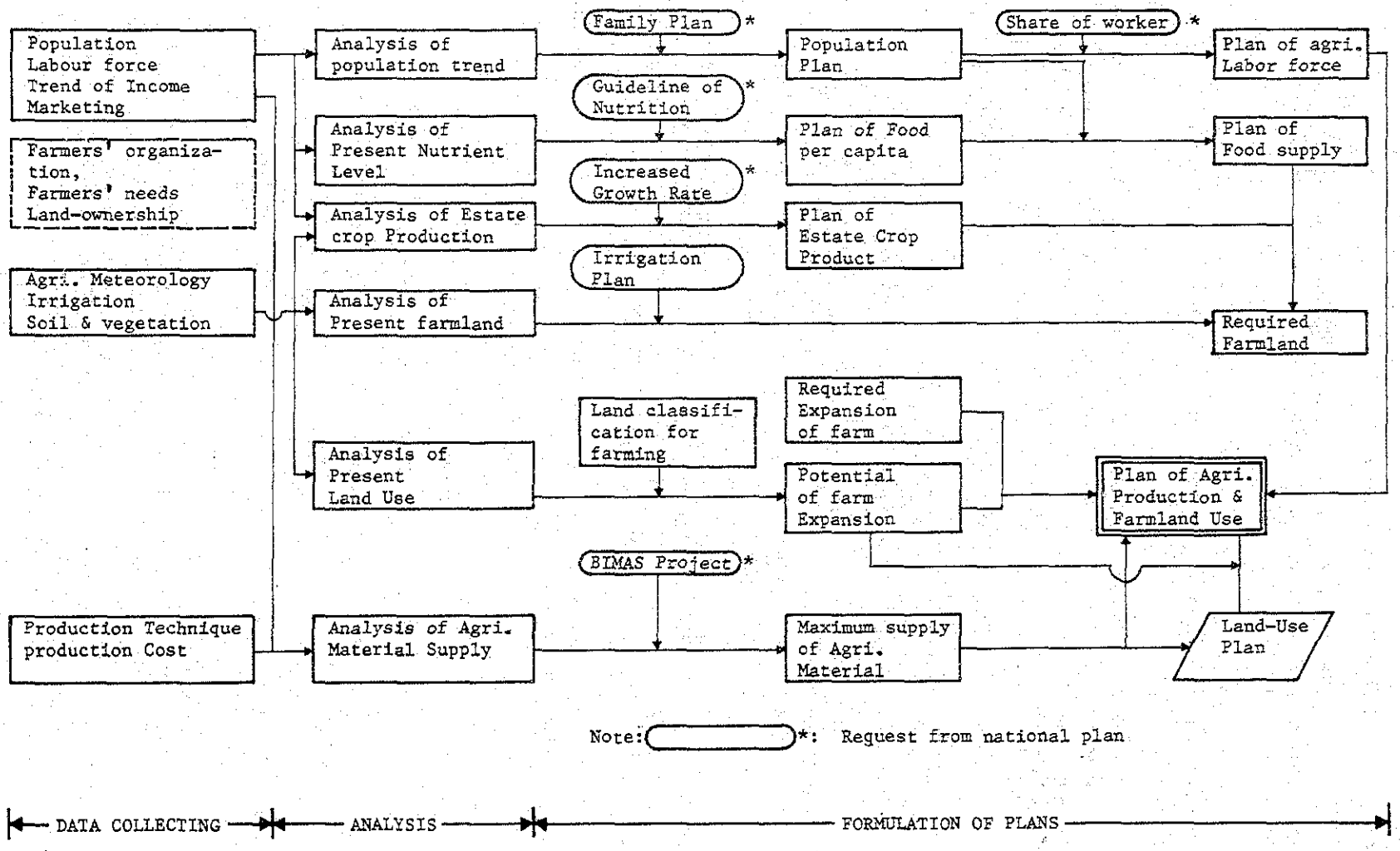


Fig. II-2 Implemented flow chart for the formulation of Regional Agricultural Integrated Planning



2-2. Phase II Activities

The Joint Committee held in January 10, 1977 resolved to have Enrekang Kabupaten and Jeneponto Kabupaten as the objects of Phase II activities.

The cooperative activities of Phase II consist of the selection of the feasible project and the execution of the feasibility study.

Activities commenced after July 1978, which however became active when the assistance of 11 short-term experts came in the middle of September. As a result, the following five were selected to be the feasible projects among the pre-feasibility surveys:

1) Road preparation project for marketing (Enrekang)

2) Afforestation and grassland improvement project (Enrekang)

3) Land utilization project (Jeneponto)

4) Citrus improvement project (Jeneponto)

5) Brackish water fish farming ponds development project (Jeneponto)

However, the physical as well as temporal restrictions and the unclear intention of the local people confined activities, and they could carry out the feasibility study stated in R/D relevant to the fish culture ponds development project in (5) alone.

In passing, the surveys took 50 times, with 242 men and 161 days in Phase II.

Chapter 3. Input of Project - M.OTA -

3-1. Dispatch of Survey Teams

Four survey teams were dispatched during 30 months of the cooperation period as follows: One project negotiating team, two technical guidance teams, and the present evaluation team. In addition to this, the following point should be noted down here. "The Detail Design Team" which was appropriated in the 1976 budget was cancelled due to the delay in starting the project. (The term was scheduled to be dispatched in July, which was shifted to December due to the delay in selecting experts and for other reasons.) This came to be supplemented by the dispatch of short-term experts and the deep survey made by the expert team.

We cannot find an example in the other projects which have dispatched four survey teams during 30 months (actually 24 months). This clearly indicates the fact that there was not sufficient understanding among the JICA Headquarters, experts' team and Indonesian side regarding the terms of reference of the experts' team which should endorse R/D at the time of project foundation, and that there was the presence of necessity to offer intensive instructions in order to supplement it.

It also evinces the fact that the present project faced squarely with the new proposition of transferring the vast fields of knowledge and techniques necessary for the regional agricultural development to the Indonesian technicians, instead of carrying out the regional agricultural development itself.

Table II-2 Project plan arrangement team

June 22 - July 9, 1979 (18 days)

1.	Position:	Team head, Team member, Team member
2.	Name:	Shingo ITO, Shozo OGASAWARA, Mitsuhiko OTA
3.	Place of belonging:	Tokyo University of Agriculture, Agriculture Department, International Development Course Ministry of Agriculture, Forestry and Fishery, Tokai Agricultural Administration Bureau, Planning Division Japan International Cooperation Agency, Agricultural Development Cooperation Department, Technical Cooperation Division

4. Main duties (T/R):

To discuss the basic policy of the project operation and the implementation of plan concretely with the experts' team and the Indonesian side. Also to establish a suitable and efficient set-up for assistance.

(Survey items)

1. Study of 1977 project operation policy

2. Study of the plan dispatching short-term experts (roles, contents of duties, achievements)

3. Study of the plan receiving counterparts (relation with the overall project, fields)

4. Study of machine & equipment granting plan

5. Study of the development plan of the specified two Kabupatens, and comprehension of their actual conditions

(Note: The survey results are shown on the PART III-2)

Table II-3 Technical guidance team

Feb. 27 - March 16, 1978 (18 days)

1.	Position:	Team leader, Team member, Team member
2.	Name:	Koichi BABA, Hiroyoshi TANABE, Mitsuhiko OTA
3.	Place of belonging:	Economic Planning Agency, Economic Research Institute Ministry of Agriculture, Forestry and Fishery, Agricultural and Forestry Economic Affairs Bureau, International Cooperation Division Japan International Cooperation Agency, Agricultural Development Cooperation Department, Technical Cooperation Division
4.	Main duties (T/R):	To confirm the proceeding conditions of 1977 dueits. To offer integral guidance in the fields like formulation of interim annual report, method of evaluation survey, achievement and future policy of cooperation. To perform the adjustment of 1978 operation policy and implementation plan, etc.

(Survey items)

1. Evaluation of Indonesian side, and intention of the future plans

2. Conditions and problems in formulating the interim annual report

3. Basic policy and implementation plan, etc. in formulating cooperation plan in the specified Kabupatens

4. Major problems in cooperation (cooperation period, allocation and training of counterparts), and

5. 1978 implementation plan of duties and the adjustment of the internal assistance for this project in Japan.

(Note: The survey results are shown on the PART III-3)

Table II-4 Technical guidance team

July 30 - Aug. 9, 1978 (11 days by team leader)

July 26 - Aug. 9, 1978 (15 days by team members)

1.	Position:	Team leader, Team member, Team member
2.	Name:	Isao SUZUKI, Katsuhiko AKIYAMA, Shigeyoshi NISHIWAKI
3.	Place of belonging:	Ministry of Agriculture, Forestry and Fishery, Kinki Agricultural Administration Bureau, Planning Department Ministry of Agriculture, Forestry and Fishery, Structure Improvement Bureau, Project Planning Division Japan International Cooperation Agency, Agricultural Development Cooperation Department, Technical Cooperation Division
4.	Main duties (T/R):	To have preliminary discussion on the basic policy and implementation policy of the evaluation survey before the termination of the cooperation period. To instruct the project planning techniques under operation. (Survey items) 1. Proceeding conditions of Phase II and the evaluation of the Indonesian side 2. Confirmation of the basic policy of Phase II and the implementation plan

3. Preliminary discussion on the future plan of the present project cooperation (problem of extension and cooperation method)

4. Preliminary discussion on the evaluation team (basic policy, structure, survey items)

5. Confirmation of problems relevant to cooperation, and others

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(Note: The survey results are shown on the PART III-4)

3-2. Dispatch of Experts

As shown on the TableII-5, the dispatched experts consisted of 5 long-term experts 150m/m, 9 short-term experts in charge of Phase I (1977) 13.5m/m, and 12 short-term experts in charge of Phase II (1978) 34.5 m/m, thus amounting to 26 experts 198 m/m all together.

The long-term experts set up the frame work of the overall cooperation plan. They also carried out to make Monthly Report, Annual Report and Master Plan (5 volumes) by analysing the results of their on-the-job training and classroom training relevant to the regional planning methods, as well as the results of the short-term experts', instruction of survey items.

The short-term experts conducted a deep survey involving their own specialized fields, and devoted to collect and analyse the data. They also performed the concrete technical guidance centered round the field of regional planning with a view to composing the Master Plan, and tried their best to enrich the contents and highten the precision of the Master Plan. Also by placing counterparts to assist each short-term expert, their on-the-job training of the individual method in each specialized field was implemented.

On the other hand, from the viewpoint of efficiency in dispatching the short-term experts, their roles and fields were not clarified beforehand, and sufficient preparations and instructions from the experts' team were lacking prior to their arrival. This ensued some confusions and difficultires, thus it is difficult to evaluate that it was performed efficiently. In the other words, it evinces the fact that the systematic assistance set-up sufficient enough to perform the project of this type with complex and vast contents has not yet been established in JICA Headquarters and even other bodies in Japan, in spite of the efforts of the people concerned. Its improvement is desired in the future.

Table II-5 List of experts

	Period	Field	Name and Place of belonging	1976.12/15 '77.6 '77.12 '78.6 '78.12 '79.6/24
Experts' team	Long	Advisor	Yoshihisa MIKI Ministry of Agriculture, Forestry and Fishery, (MAFF) International Cooperation Division	———
	"	Leader	Setsuzo KIKKAWA JICA	———
	"	Farming	Kiyoaki KUBO JICA	———
	"	Agricultural economy	Kunihiro OZAKI MAFF, Structure Improvement Bureau	———
	"	Operational coordination	Koji TANABE JICA staff member	———
Phase II assisting experts (1977)	Short	Regional planning (Water resource)	Ryuichi TATSUMI Water Resources Development Cooperation, Boso Construction Office	—— (10/24-12/19)
	"	Regional planning (Computer)	Yoshihiko OGAWA MAFF, Structure Improvement Bureau, Planning Division	—— (11/30-12/29)
	"	Agrarian society structure	Hiroyuki NISHIMURA Kyoto University, Agriculture Faculty, Agrucultural and Forestry Economic Department, Associate Professor	—— (12/15-2/4)
	"	Agricultural extension planning	Kanae MORINISHI MAFF, Extension & Education Division	—— (2/20-3/25)

	Period	Field	Name and Place of belonging (cont'd)	'76.12/15 '77.1/6 '77.12 '78.6 '78.12 '79.6/24
	"	Circulation planning	Iwao NISHIYAMA MAFF, Kanto Agricultural Administration Bureau, Production Circulation Division	(10/20-12/19)
	"	Seoil and vegetation	Masaaki FUNADA JICA	(12/15-1/31)
Phase II assisting experts (1977)	Short	Afforestation planning	Hiroshi MURAI Forestry Agency, Experiment Station, Tohoku Branch	(1/27-3/2)
	"	Fishery in general	Takeichiro KAFUKU JICA	(11/30-1/29)
Seminar lecturer	"	Population and labor force estimation	Terushi EGASHIRA MAFF International Cooperation Division	(8/7-8/21)
Phase II assisting experts (1978)	"	Regional planning	Shinji SASANO MAFF, Agricultural Engineering Experiment Station	(10/24-11/11)
	"	Circulation	Yoshio SHIRAISHI MAFF, Kyushu Agricultural Administrative Bureau, Production Circulation Division	(9/72-12/11)
	"	Water resources and irrigation	Tetsuo MIYASATO MAFF, Structure Improvement Bureau, Construction Department, Design Division	(5/1-3/31)
	"	Underground water resources	Kyoichi TANAKA MAFF, Hokuriku Agricultural Administration Bureau, Planning Department, Resources Division	(9/12-10/11)

	Period	Field	Name and Place of belonging (cont'd)	'76.12/25	'77.6	'77.12	'78.6	'78.12	'79.6/24
	"	Soil and vegetation	Masaaki FUNADA JICA					(9/12-12/11)	
	"	Soil and vegetation	Noriaki SHIOJIRI MAFF, Kinki Agricultural Administrative Bureau, Planning Department, Resources Division					(9/12-11/11)	
	"	Silviculture	Ryuichi Terui Iwate Prefecture, Forestry Experiement Station, Silviculture Department					(9/12-11/11)	
Phase II assisting experts (1978)	Short	Citrus fruits	Katsuichi YAMAGUCHI Ehime Prefecture, Fruit Culture Experiment Station					(9/12-11/11)	
	"	Grassland improvment	Shunichi Shoji Tohoku University, Agricultural Institute					(10/17-12/23)	
	"	Fishery (shrimp cultivation)	Tsuguhiro YOKOKAWA Overseas Fishery Cooperation Foundation					(9/12-3/11)	
Composition of a manuel for planning techniques	"	Formulation of system plan in making a manual for regional planning techniques	Hiroshi MATSUO Japan City Planning					(12/5-12/25)	
Seminar lecturer	"	Regional apportionment techniques	Kazuo MUTO Tokyo University of Agriculture, Agriculture Economics Department				(3/24-4/9)		
	Survey team member (combined)	Teory of regional planning (Introduction) (Tanzania - Kilimanjaro Project)	Hiroshi MATSUO Sachihiko KOBORI Japan City Planning					(3/1-3/21)	

3-3. Receipt of Trainees

As shown on the Table II-6, 1 participant was received in 1976, 3 participants were received in 1977, and 11 participants were accepted in 1978, thus amounting to 15 participants, 18 m/m.

Nearly all the participants' positions in this project were filled up, and this by figure shows an achievement suitable for the proposed theme of this project, "Man Power Development". It is assumed that the impact given to the project operation and transfer of technology was of no small amount.

However, there was no training institutions which allow them to teach regional planning systematically on the operational level, and it is regrettable that they ended in the inspection training of less than a month. It is desired that a text is written in English or local languages, and the relevant training institutions or courses are established in the future.

Table II-6 List of participants

Name	Place of belonging and field in charge	Field of training	1976 F/Y	1977 F/Y	1977 F/Y
Dr. A.T. Birow	Ministry of Agriculture Secretariat Planning Bureau, Head Joint Committee Chairman	Inspection –	(1wk)		
Mr. A.R. Malaka	South Sulawesi Province, Planning Bureau, Secretary-general, Steering Committee, Chairman	" –		(2wks)	
Mr. Hendro Soewarno	Ministry of Agriculture Secretariat Planning Bureau	"		(2wks)	
Mr. Amien Hidayat	Ministry of Agriculture, Secretariat Planning Bureau, Assistant Director Joint Committee, Vice-chairman	" –			(3wks)
Mr. Djoko Soejanto	Ministry of Agriculture, Secretariat Planning Bureau, South Sulawesi Office, Head Steering Committee, Vice-chairman	" –			(3wks)
Mr. Muhdmmad Iskandar	Kabupaten, Jeneponto Governor	" –			(10 days)
Mr. Abdullah Dollar	Kabupaten, Enrekang Governor	" –			(10 days)
Mr. Mono Syamsuddin	Ministry of Agriculture, Secretariat Planning Bureau, South Sulawesi Office	" –			(3wks)
Mr. Onggeng Bachtiar	Ministry of Agriculture, Secretariat Planning Bureau, South Sulawesi Office, Staff member	Inspection training –			(1 month)

Name	Place of belonging and field in charge	Field of training (cont'd)	1976 F/Y	1977 F/Y	1978 F/Y
Mr. Y.M. Lubis	Ministry of Agriculture, Secretariat Planning Bureau, Staff member	"			— (1 month)
Mr. Nazarddin L.	Ministry of Agriculture, Secretariat Planning Bureau, South Sulawesi Office	"			— (1 month)
Mr. Tadjuddin Dullah	" "	"			— (1 month)
Mr. Aminuddin Madjid	Ministry of Agriculture, Secretariat Planning Bureau, South Sulawesi Office	Inspection -			— (1 month)
Mr. Dahlan Noor	" " Regional Planning, Agricultural Statistics	" Agricultural statistics course -			— (3 months)
Mr. Azis Mattola	" " Regional planning, Agricultural Statistics	Economic development seminar -		— (6 months)	

3-4. Grant of Equipment and Machines

The major equipment and machines granted are shown on Table II-7. The total of grant was ¥78,481,000 (Cif Jakarta and Ujung Pandang). The amount by the types of equipment are: ¥24,606,000 for vehicles, ¥29,113,000 for office equipments, ¥8,072,000 for audio-visual facilities, and ¥16,690,000 for experiment and survey materials and equipment.

Emphasis was laid on granting vehicles, office equipment, and equipment for audio-visual training, and no grant was made of general materials and equipment for agriculture and development.

This prevented from wasting and unnecessary energy of five long-term experts to achieve the project target, and the results turned out favourable in consequence.

And it is worth to be evaluated that the massive grant of vehicles which are important for movement of the experts and the counterparts and office equipments which are required for producing various types of printed matters gave mobility and energy for this project activities. The office equipment was locally purchased, which was worth enough from the aspect of effective utilization, preservation and control of the equipment.

Table II-7 : List of granted equipment
(Cif point of destination) (¥1,000)

No.	Item and specification	Q'ty	Unit price	Amount	Fiscal Year	Point of destination
	(VEHICLES)					
1	Toyota Hiace, model RH30 RB-JRG Capacity - 15 persons, right handle, gasoline engine, spare parts 10% attached	1	1,574	1,574	52.11	Ujung Pandang
2.	Toyota Landcruiser, model FJ55 RV-KC Gasoline engine, spare parts 10% attached	1	2,155	2,155	52.11	Jakarta
3.	Toyota Landcruiser, model FJ55 RV-KC Gasoline engine, spare parts 10% attached	3	2,028	6,084	53. 2	Ujung Pandang
4.	Isuzu Microbus, model BLD-24 Diesel engine, spare parts 10% attached	2	2,376	4,752	"	"
5.	Isuzu Pickup Truck, model H-KB20 BD Gasoline engine, spare parts 10% attached	1	847	847	"	"
6.	Yamaha Autobike, model YB-100 Spare parts 10% attached	15	103	1,545	"	"
7.	Toyota Landcruiser, hard top, model FJ40 RV-UC Gasoline engine, spare parts 20% attached	2	1,433	2,866	52. 4	"
8.	Toyota Landcruiser, model FJ55 RV-KC	1	1,919	1,919	"	"
9.	Transportation Cost CIF U/P			2,864	"	"
	(OFFICE EQUIPMENTS)					
1.	Electronic Recopy Machine KIC-103B, 100V 500Hz	1	362	362	51.12	Ujung Pandang
2.	Typewriter, Hermes 9s, 25 inches 46 Key	3	197	591	"	"
3.	Electronic Computer, Casio, R210	2	93	186	"	"
4.	Electric Copier Fax, Horii M-305S	1	267	267	"	"
5.	Filing Cabinet etc. 13 Types	1 set		1,153	"	"
6.	Dry-type Electronic Recopy, Rikoh PT-510	1	344	344	52.10	Jakarta
7.	Typewriter, Adler E-131 F, 220V, 50 Hz	1	324	324	"	"
8.	Mimeographing rotary press machine, Rikoh E-80	1	182	182	"	"
9.	Electric copier fax, Rikoh F-2	1	235	235	"	"
10.	Filing cabinet, etc. 26 items	1 set		1,055	"	"
11.	Drawing instrument, board, table, lettering set, etc.	3 sets		692	"	Ujung Pandang
12.	Electronic computer Tiger, Casio 10 GT	4		98	"	"

(Cont'd)

13. Back fixing machine, back pasting machine for book binding, etc.	1 set		497	52.10	Ujung Pandang	
14. Mini computer Canon SX-350 110V, 50Hz Step 4,000, memory 500, cartridge type (Attached) Library for statistics No. 1-2 Statistics pack SX-3110 Mini cartridge D-500 1 case Roll paper TP-140 10 cases Roll paper TP-77 2 cases	1	2,159	2,159	"	"	
15. Facsimile paper, typewriting paper, etc. 14 items	1 set		502	"	"	
16. Dry-type copier, Rikoh PT510, 220V, 50Hz with special attachments	2	723	1,446	52.12	Jakarta	
17. Typewriter, Adler E-131 F, 19 inches, 46 keys	1	310	310	"	"	
18. Automatic book binder (lion)	1 set		508	"	"	
19. Lion map case, etc. 2 items	1 set		461	"	"	
20. Dry-type copier, Rikoh PT-510, 110V, 50Hz	3	723	2,169	52.12	Ujung Pandang	
21. Large size plan copier, Rikoh AC-3500 copying width 110-120cm	1	1,232	1,232	"	"	
22. Electric typewriter, Adler E-131F	1	310	310	"	"	
23. Typewriter, Olivetti linear 98, Hermes 44	8	172	1,376	"	"	
24. Automatic binder set (lion)	1 set		149	"	"	
25. Kent pentgraph, etc. 15 items	1 set		1,855	"	"	
26. Canon attachment Disk SX-3320 For mini computer SX 300 Control program (1) program for measurement (library, cording 2), color cartridge tape (D-500), roll paper No. TP-77, TP140 (100 each)	1 set		1,454	54. 2	"	
27. Slide tray, etc. 10 items	1 set		722	"	"	
28. Copy paper for Rikoh PT510, etc. 5 items	1 set		303	"	Jakarta	
(OFFICE EQUIPMENT OF LOCAL PROCUREMENT)						
29. Photocopying machine, Canon NP-70/PCC	1	1,046	1,046	54. 1	"	
30. Auto slide projector Kodak S-AV 2,000	1	160	160	"	"	
31. Dry-type copying machine, Xerox 3103	1	1,945	1,945	54. 3	Ujung Pandang	
32. Electric typewriter, Olivetti Editor 2	2	127	254	"	"	