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Japan International Cooperation Agency

EX-POST EVALUATION STUDY ON INTEGRATED AGRICULTURAL AND RURAL DEVELOPMENT PROJECT IN SOUTHEAST SULAWESI PROVINCE

FINAL REPORT

MARCH 2005

PT. INDOKOEI INTERNATIONAL

Engineering and Management Consultant

INO
JR
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Executive Summary

<table>
<tr><td colspan="3">I. Outline of the Project</td></tr>
<tr><td colspan="2">Country: Indonesia</td><td>Project title:
The Integrated Agricultural and Rural Development Project in Southeast Sulawesi Province</td></tr>
<tr><td colspan="2">Issue/Sector:
Agriculture and Rural Development</td><td>Cooperation scheme:
Project-type Technical Cooperation</td></tr>
<tr><td colspan="2">Division in charge:</td><td>Total cost:
521 million Yen</td></tr>
<tr><td rowspan="2">Period of Cooperation</td><td rowspan="2">R/D: 1991 – 1996
F/U: 1996 – 1998
A/C: 2000 - 2002</td><td>Partner Country’s Implementing Organization:
Ministry of Agriculture</td></tr>
<tr><td>Supporting Organization in Japan:
Japan International Cooperation Agency (JICA)</td></tr>
<tr><td>Related Cooperation</td><td colspan="2">Southeast Sulawesi Province and Kolaka District Governments</td></tr>
</table>

1. Background of the Project

The rural area in Southeast Sulawesi was identified by the limitation of ability to fund self help in increasing the standard of living of the community. The low ability of capital formation in as much caused by the low rate of production and productivity which is in turn raised low income. The low rate of production and productivity sincerely caused by low level of community knowledge and applied technology. Throughout the outside capital injection it is expected that there will be various enable activity such as plan of farming, availability of infrastructure and facility, agriculture extension, farming management system will increase the rate of production, productivity welfare and standard of living. For that purpose, the Government of Indonesia with the assistant of the Government of Japan executes the Integrated Agricultural and Rural Development Project in Southeast Sulawesi.

2. Project Overview

The scope of project composed of (i) planning of the integrated agriculture and rural development covering land use plan, cultivation and farming plan; agricultural and rural development plan, (ii) development of basic agricultural infrastructure and agricultural and rural facilities, (iii) demonstration of cultivation and farming techniques of paddy, secondary food crops and estate crops, (iv) strengthening farmers group, and (v) training of regional and provincial government officials, extension workers and key farmers.

The activities have been implemented in eight “Model Villages” in the Kendari District of Southeast Sulawesi Province through participatory approach with the farmers of the villages.

(1) Overall Goal

To establish methodology and system of the integrated agricultural and rural development at less developed area in Indonesia.

(2) Project Purpose

To introduce the knowledge and technology for the appropriate agricultural and rural development in low developed regions based on natural and social condition, aiming at the increase of farmer's income and the improvement of their living standard by the higher productivity and the diversification of agricultural production.

(3) Outputs

a) Integrated Agricultural and Rural Development Plan Methodology
b) Consolidation of agricultural and rural infrastructures
c) Promotion of cultivation technique and farming management
d) Strengthening of farmers' groups
e) Transferring of appropriated technology for government officer, extension worker and key farmers.

(4) Inputs

Japanese side:

Long-term Expert	12	Equipment (approx)	265 million Yen
Short-term Expert	20	Local cost (approx)	256 million Yen
Trainees received	23	Others	Yen

Indonesia side:

Counterpart	42
Equipment	___
Land and Facilities	Enough land for the model infrastructure and the model farm, building for offices and other facilities
Local Cost	Rp 1,470,858,000
Others	___

II. Evaluation Team

Members of Evaluation Team	Arief Effendi Hadiono S	
Period of Evaluation	Day/Month/Year~Day/Month/Year 14 March 2005 - 31 March 2005	Type of Evaluation: Ex-post Evaluation

III. Result of Evaluation

1. Summary of Evaluation Result

(1) Impact

The overall goal of the project to established methodology and system of the integrated agricultural and rural development has been highly achieved as reflected in the expansion of cultivation area, improvement of farmers' skill and knowledge on agricultural system, improvement of crops production and productivity and increase of farmers' income and living standards.

Enhancement of farmers' group and improvement of rural economic activity are observed as the other positive impacts of the project.

(2) Sustainability

The counterparts and extension workers are still working in the Regional and Provincial Agriculture Service and continue the activities for monitoring, supervision and guidance as well as extension activities after the completion of the project. The Ministry of Agriculture and Provincial Agricultural Services have made efforts to support the activities by preparing national and local budgets started in 2002 until present. The farmer's groups actively apply the recommended appropriate technology in production process and manage the stock fund for operation and maintenance. In view of institutional and outcomes, the project is highly sustainable.

2. Factors that have promoted project in the aspect of:

(1) Impact

Planning of the Integrated Agricultural and Rural Development in Southeast Sulawesi Project was arranged by "bottom-up" system through participative approach with community. Discussion with farmers and related community organization concerned that facilitated by government official was conducted with result planning formulation was based on community needs.

This participatory approach has created sense of belonging in community, and additionally the communities in model villages have been involved since initial project.

(2) Sustainability

Development of natural and human resources has changed the perception of settler/farmer in improving their living standard and quality of live. Farmer's group has big contribution to project sustainability by managing stock fund for crop production.

The policy and program related to the project such as enhancement of food security, agribusiness, community empowerment for rural development and other programs for poverty alleviation have been implementing to increase farmer's income and standard of living for rural community.

3. Factors that have inhibited project in the aspect of:

(1) Impact

The development of agricultural and rural development was not executed simultaneously in eight model villages. Villages where most settlers as migrant settler were developed ahead than the village with mostly local settler. In this case the difference culture, behavior and knowledge, local settler needs more supervision and time to pursue their inadvertently omitted compared with migrant settler. After project completed, the progress of rural development in these village is still left behind.

(2) Sustainability

In accelerating even development distribution, some villages have been separated to 2 or 3 new villages such as Sabalakoa, Lapulu and Laiya villages. In 2002, Kendari District had been separated and became Konawe and Konawe Selatan Districts.

In connecting with this situation, the project assets have been divided to the new separated villages with result inefficiency in one side and lack of machinery and tool in the other sides. The available stock fund is still not enough to purchase new equipment.

4. Conclusion

The project has succeeded in promoting integrated agricultural and rural development plan methodology. It is important not only to construct infrastructure, farm equipment but also effort to improve the capability of human resources. Farmer's group empowerment in managing stock fund for management and maintenance of farm tool and machinery is indispensable for continuation operation and maintenance. In the other hand this method will decrease farmer's dependency to government assistance, with result sense of self reliance among settlers become increase. By implementing this plan methodology on integrated agricultural and rural development, the project has a big contribution in increasing farmer' income and their living standard as well as increasing rural economic activity.

The Ministry of Agriculture and Provincial Agricultural Office have made efforts to continuously conduct the activities after the completion of the project by local and national budget.

5. Recommendation

It is recommended to the Regional and Provincial Agriculture Services to apply the methodology and system of the integrated agricultural and rural development in other indigenous area, especially less developed area in Eastern part of Indonesia.

It is also recommended to the Regional and Provincial Agriculture Services to improve the supervision, guidance, and extension activity. The leadership of chairman of farmer's group in stock fund management should be continuously increased to ensure the stock fund can be implemented effectively and efficiently.

6. Lessons Learned

Planning, development of agriculture and rural infrastructure, trial and demonstration of agriculture technique, strengthening farmer's group and training activities should be conducted simultaneously in all project areas without mixed tribes, local settler, or migrant settler which occupied in selected villages are taken into consideration.

Rural development planning should be conducted as bottom up planning based on participatory approach among stakeholders in rural area. Participatory Rural Appraisal (PRA) should be promoted in planning and will accommodate comment, suggestion and needs of community in formulating village plan.

7. Follow-up Situation

Agriculture development through food security program and agribusiness development program is implemented in former model villages. The activity covers crops production, institutional development, agriculture extension services, processing and marketing. The successful of model village development has encouraged local government to develop similar model in three villages surrounding previous village model. The Sulawesi Agriculture Area Development Project under World Bank loan is implemented with aim to disseminate similar project of integrated agricultural and rural development project. The concept of one village one plan was also developed under JICA Technical Assistance in 2003 in Lake Toba Water Catchment's Area through participative approach.

EX-POST EVALUATION STUDY ON INTEGRATED AGRICULTURAL AND RURAL DEVELOPMENT PROJECT

FINAL REPORT

Contents

Third Party Review by External Expert

List of Tables

List of Figures

Page

List of Annexes

CHAPTER I
INTRODUCTION

1.1 General

The Government of the Republic of Indonesia with the assistance of the Government of Japan has implemented the Integrated Agricultural and Rural Development Project (ATA-481) in Southeast Sulawesi Province. The cooperation between both governments as technical assistance that implemented by Japan International Cooperation Agency and Ministry of Agriculture in Central Government and Local Government in Project site.

The project was started in March, 1991 and completed in February, 1996. With about five month left to the termination of cooperation period, Japan International Cooperation Agency and Ministry of Agriculture had conducted terminal evaluation of the project at the end of 1995 with recommendation for project extension and other follow-up activities for strengthening project outcome. To support and to improve the achievement of the former Integrated Agricultural and Rural Development project, the cooperation between the Government of Japan and the Government of Indonesia had been continued by implementing Aftercare program that initiated from 2000 to 2002 for 1.5 years. The target of Aftercare project is to strengthen the project management and farmer's group to be as model of development.

As a whole, the implementation of Integrated Agricultural and Rural Development project was almost 9 years before taken over the operation and maintenance by local government.

In order to improve self-reviewing process and accountability to general public, therefore the ex-post evaluation study has been conducted for the Integrated Agricultural and Rural Development Project that has passed more than three years after the end of cooperation period.

1.2 Purpose of the Study

The main purposes of the ex-post evaluation study are as follows:

- To assess the current situation of past project mainly from the impact and sustainability point of views; and
- To draw lesson-learned and recommendation.

The evaluation is expected to verify the important issues relating to the impact of the project and sustainability of the project.

1.3 Scope of the Study

In order to achieve the objective mentioned above, the study shall cover the following items:

a) Collect and review document relating to the project;

b) Identification of major questions and key informants for the study;

c) Collection background data needed for evaluation analysis;

d) Field observation of project site by means of discussions, interviews with key informant and field investigation;

e) Analysis of collected data, including result of interviews; and

f) Formulate lesson learned and recommendation to improve future JICA projects and at the same time to increase accountability to the stakeholders and general public.

1.4 The Study Team and Study Period

The ex-post evaluation study has been implemented for five past technical cooperation projects where the position of all project at the stage of more than three years after the end of cooperation period. The projects are as follows:

Table 1.1 List of JICA Project

Name of JICA Project	Period	Project Site
Dairy Technology Improvement Project	1998-2002	Bandung
The Agricultural Statistics Technology Improvement & Training Project	1994-2001	Jakarta
Irrigation Engineering Service Center Project	1994-1999	Bekasi
Integrated Agricultural and Rural Development Project in Southeast Sulawesi Province	1991-1996 2000-2001	Kendari
Project for Improvement of District Services in South Sulawesi	1997-2002	South Sulawesi Province

For undertaking evaluation of the projects as listed above, the Study Team was composed six experts, covering Team Leader, expert in charge of Dairy, Agricultural Economic, Irrigation, Rural Development, and Public Health. The Study Team Member is listed in Table 1.2.

The Study period will be three weeks from 2nd week of March until the end of March 2005. The schedule of the Study is as follows:

- 1st week : Preliminary meeting and preparation of Study
- 2nd week : Field visits, observation and interviews
- 3rd week : Analysis and drafting of report, submission of draft final report.

Table 1.2 Lists of Study Team Members

Name	Position	Project
Hadiono S	Team Leader	Integrated Agricultural and Rural Development Project
Soedjasmiran Prodjodihardjo	Dairy Specialist	Dairy Technology Improvement Project
Soedjatmiko	Agriculture Economist	The Agricultural Statistics Technology Improvement and Training Project
Besar Hatmaya	Irrigation Engineering Specialist	Irrigation Engineering Service Center Project
Arief Effendi	Rural Development Specialist	Integrated Agricultural and Rural Development Project
Tugiyo	Public Health Specialist	Project for Improvement of District Services in South Sulawesi

The implementation schedule is shown in Figure 1.1.

Figure 1.1 Implementation Schedule

No.	Work Items	March 2005			April 2005	
		(2)	(3)	(4)	(1)	(2)
I.	Stage I Preliminary Meeting & Preparation Works					
1	Preliminary Meeting					
2	Preparation of Evaluation Method					
3	Identification of Major Questionnaires & Key Informants					
4	Collecting of Project Documents					
II.	Observation and Interviews					
1	Discussion with Agencies concerned					
2	Interview Survey					
3	Extraction of the Result					
III.	Drafting Evaluation Result					
1	Findings Analysis					
2	Impact & Sustainability Analysis					
3	Evaluation Format					
4	Draft Final Report					
IV.	Final Report					
1	Submission of Summary Format					
2	Submission of Draft Final Report, Comment					
3	Submission of Final Report					

1.5 Structure of Final Report

The structure of Final Report is arranged into chapters as follows:

Executive Summary

This Executive Summary presents the report in brief, summarizing the result of evaluation for impact and sustainability, factors that promoted and inhibited the project, conclusion, recommendation, lessons learned and follow-up situation.

Chapter 1 Introduction

This Chapter presents general description of the project, propose of the study, scope of the study, the study team and study period.

Chapter 2 Project Information

This Chapter presents the project information in general, purpose and scope of the project, achievement of project input and project organization.

Chapter 3 Approach and Methodology

This Chapter presents approach of the study and methodology.

Chapter 4 Result of Evaluation and Findings

This Chapter presents present status of project, impact, sustainability, factors affecting the impact and factors affecting the sustainability.

Chapter 5 Lessons Learned from the Past

Chapter 6 Overall Conclusions

Chapter 7 Recommendations

CHAPTER II
PROJECT INFORMATION

2.1 General

Based upon the R/D signed on January 26, 1991, the Government of Republic of Indonesia with the assistance of the Government of Japan has carried out the Integrated Agricultural and Rural Development Project in Southeast Sulawesi. The project was started on March 1, 1991and completed on February 1996. Based on the Joint Evaluation Team composed by Japanese Evaluation Team organized by JICA and Indonesian Evaluation Team that conducted on five months left before termination of cooperation period in 1996, the project has been extended and continued by followed up of the project until 1998. To support and improve the achievements obtained by the Integrated Agricultural and Rural Development in Southeast Sulawesi Province which terminated on February, 1998, the Government of Japan and the Government of Indonesia implemented "Aftercare Program" and this program was started on October, 2000 to March 2002 for one year and 6 months.

As written in the R/D, the project will be carried out for the purpose of introducing the knowledge and technology for the appropriate agricultural and rural development in low developed region. It is based on the natural and social conditions in rural area, aiming at the increase of farmer's income and the improvement of their living standard by the higher productivity and the diversification of agricultural production. In order to attain the purpose as mentioned above, the project has implemented "model villages" dispersed in eight villages in Konawe Selatan District, as separated of former Kendari District.

2.2 Purpose and Scope of the Project

Based on the purpose as mentioned above the overall goal of the project is formulated as "to establish methodology and system of the integrated agricultural and rural development at less develop area in Indonesia".

The project purpose is to introduce the knowledge and technology for the appropriate agricultural and rural development in low developed regions based on natural and social condition, aiming at the increase of farmer's income and the improvement of their living standard by the higher productivity and the diversification of agricultural production.

The expected achievement of the project is as follows:

- Settlement of a plan of integrated agricultural and rural development project;
- Consolidation of agricultural and rural infrastructures;
- Exhibition of cultivation technique and farming management;
- Strengthening of farmer's groups; and
- Transferring of appropriated technology for government officer, extension worker and key farmers.

In order to attain the overall goal, target and expected out-put, the scope and activity of project is arranged from land use and agricultural planning, agricultural and rural infrastructure development, demonstration of agricultural techniques, and training and agriculture extension.

(1) Integrated Agriculture and Rural Development Plan

With the target to formulate the integrated agricultural and rural development in eight (8) villages, the activity covers land utilization and farming plan, and agricultural and rural infrastructure development plan.

a) Land Utilization and Farming Plan

Land utilization survey is conducted to produce land use map in eight (8) villages for formulating integrated plan, technical problems and constraints. This activity is also as guidance to local staff for understanding the methodology and procedure in formulating the land utilization.

Under this activity, planning of farming system is conducted by implementing survey to investigate level of technology and current farming system, problems and constraints, and transfer this methodology to local staff in preparing farming plan in target area.

b) Agricultural and Rural Infrastructure Development Plan (SID)

Various survey are conducted mainly survey, investigation and design of land and water resources which is necessary for formulating development plan. The designed plans consist of land reclamation/development, infrastructure facilities and agricultural facilities. Activity is also as media of transfer of technology to local staff, including key farmer especially on water management aspect.

(2) Agricultural and Rural Infrastructure Development

There are two main activities i.e. basic agricultural infrastructure and agricultural and rural facilities.

a) Basic Agricultural Infrastructure Development

Land reclamation is developed for paddy field and dryland. The implementation of land reclamation is conducted by machinery operation, including maintenance and management. The farmland facilities development covers water intake weir, irrigation canal, drainage, farm road, farm pond, bridge and other irrigation structures. The construction management is carried out by flow chart schedule control and the finished work survey, where this technology is transferred to local staff.

b) Agricultural and Rural Facilities Development

These activities cover the development of livestock auction yard, fattening demonstration yard, seed storage, rice mill, drying facilities, training facilities and communal well. The facilities are located in model village based on participatory approach among the project, land owner and related community organization. Transfer of technology of the controlling stage of work procedure is a target to local staff.

(3) Demonstration of Cultivation and Farming System

These activities consist of verification trial/introduction of improved cultivation techniques and demonstration and extension of farming techniques.

a) Verification Trial

Verification trial is conducted on lowland rice and upland rice, upland food crops and estate crops. Target and expecting results of verification trial cover introduction of improved cultivation technique, introduction of improved technique and perform of verification trial, systematize and synthesis of individual technique, establishment of suitable cropping pattern for individual model village and preparation of technical guidance book.

b) Demonstration and Extension of Farming Technique

This activity is conducted on lowland rice, upland rice, upland food crops/secondary crops and estate crops. The purpose of activity is technology transfer and skill to extension worker and local staff with in turn from extension worker to key farmer.

(4) Strengthening of Farmer's Group

The activity of strengthening of farmer's group is as follows:

a) Survey on Farmer's Group

Survey is conducted in the project site to investigate land holding, tribal background and basic data of community. Target is technology transfer of methodology, planning and analysis to local staff.

Survey is conducted to similar project in other regions as comparative study to gather information on farming system and farmer's group practices.

b) Formation and Strengthening Farmer's Group

The activity covers organizing the farmer's group and counseling by establishing group related to project activity i.e. farmer's group, water user organization, farmer's group association, farm machinery rental service, village unit cooperative.

Counseling continuously to farmer's group and community organization is needed in problems identification, problems solving and so on.

Supporting activity for strengthening farmer's group in form of mini-project or small scale income generating activities is aimed to increase the capability in planning and implementing the activities of woman and youth group. Activities are also improving nutrition and income generating of settler. The project provides some of necessary materials such as agro-input, product processing etc.

(5) Training for Government Official, Key Farmer and Farmer's Group

The activity covers agriculture and rural development plan; farming plan and crops cultivation; farmer's group empowerment and other project supporting activities.

a) Agricultural and Rural Development Plan

Kind of training consists of agricultural and rural development plan, farmland reclamation and farm machinery operation and maintenance. The participants of training are government official, extension worker and key farmer. For agricultural and rural development training, the participant only comes from government official.

b) Farm Management and Cultivation Techniques

Training in this field consists of paddy crop, secondary food crops, and estate crops with participant from official, key farmers and farmer's group. Training for diversion system (livestock) and water management are participated by official and key farmers.

c) Farmer's Groups

This training covers strengthening farmer's group and strengthening rural women's group. The participants are leaders of farmer's group and leader of women's group. Training on improvement of rural life is attended by selected farmers or settlers.

d) Other Training

Beside kind of training as mentioned above, the project arranges training for farmer's youth, less experienced farmers training, farmer's day and study tour. This training is focused for young farmers and less experienced farmers. The field officials accompany the participant in study tour.

The project activities can not be completed based on project schedule that terminated on 29 February, 1996, due to delay of project implementation, so that both governments agreed to extent the project activities for one year.

After extension of project activities completed in 1997, further guidance is still needed and both governments agreed to continue the project activities for the follow-up period until February 1998. Activities have been done in the field of farming guidance, operation and maintenance of farm machinery and strengthening farmer's group.

Aftercare program is executed for the purpose of supporting and improving the achievements obtained by the Integrated Agricultural and Rural Development Project in Southeast Sulawesi which terminated on February 28, 1998. The aftercare of one and half year from October, 2000 to March 2002, is aimed to support and to improve the achievement of eight (8) target villages of former Integrated Agricultural and Rural Development Project, with the main pillars of the support were as follows:

- Strengthening the project management;
- Strengthening farmer's group;
- Rehabilitation of deteriorated facilities; and
- Support of spare parts for machineries purchased by the project.

The expected achievement of aftercare program covers (i) Establishment of effective management system of operation and maintenance and rehabilitation of the facilities that was obtained from previous project, (ii) Improvement of support system for farmers by the local government, and (iii) Establishment of self-management system by strengthening farmer's group.

The logical framework of integrated agricultural and rural development is shown in Figure 2.1.

2.3 Achievement of Project Input

The Government of Japan and Government of Indonesia contribute in executing the project in form of expert/counterpart, equipment, construction of infrastructure and facility, training, agriculture extension and other field activities.

(1) Japanese contribution during the five year project, one year extension and one year follow-up project (1991-1998).

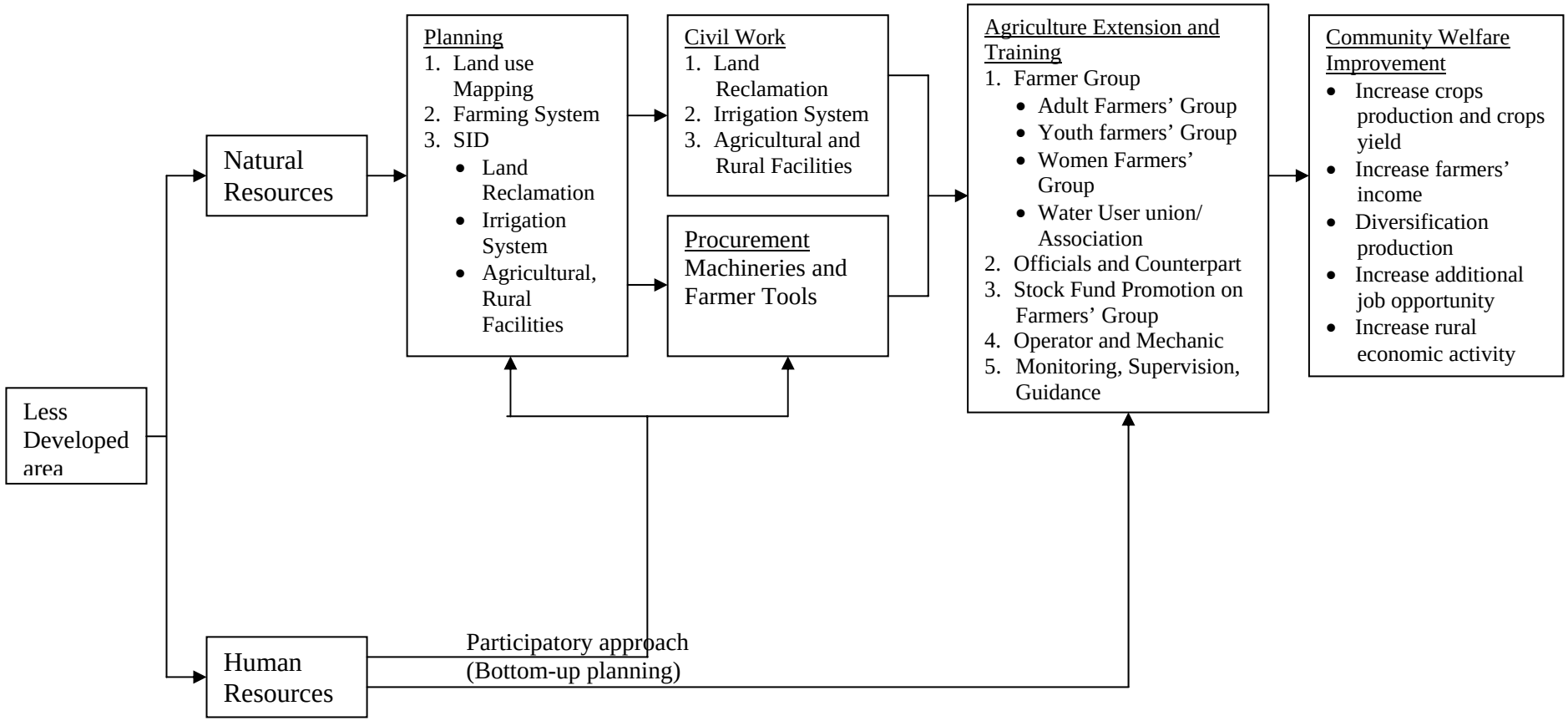
a) Long-term Experts : 12 experts; Short term experts: 20 experts

b) Training in Japan : 23 counterparts (C/P) in 17 fields related to activities of project.

c) Equipment Supply : Total ¥260,103,000 for construction machinery, farming and training machinery, livestock machinery, information and equipment tool, weather observation and survey equipment, equipment and tool for machine maintenance.

d) Local Cost Support : Total ¥251,130,000, amount of ¥163,560,000 supported in infrastructure construction, the remaining cost supported agriculture extension activity, training, publication, emergency counter program and local recurrent expenditure support.

Figure 2.1 Logical Framework of Integrated Agricultural and Rural Development Model



(2) Indonesian contribution during 1991 to 1998

a) Long-term Counterpart (C/P):42 C/P; Short-term Counterpart: 5 C/P

b) Supplement of local cost expenditure from fiscal year 1990/1991 to 1997/1998

-	Central Government Budget	Rp. 530,159,000
-	Regional Government Budget	Rp. 693,098,670
-	Total	Rp. 1,223,257,670

(3) Aftercare Program

a) Japanese Contribution

i)	Long-term Experts:	2 experts; Short-term Experts: 3 experts
ii)	Training in Japan :	2 persons
iii)	Equipment Supply:	Total ¥ 5,000,000 for spare parts of the machinery granted previous project
iv)	Local Cost Support:	Total ¥ 4,500,000 as a cost for rehabilitation work

b) Indonesian Contribution

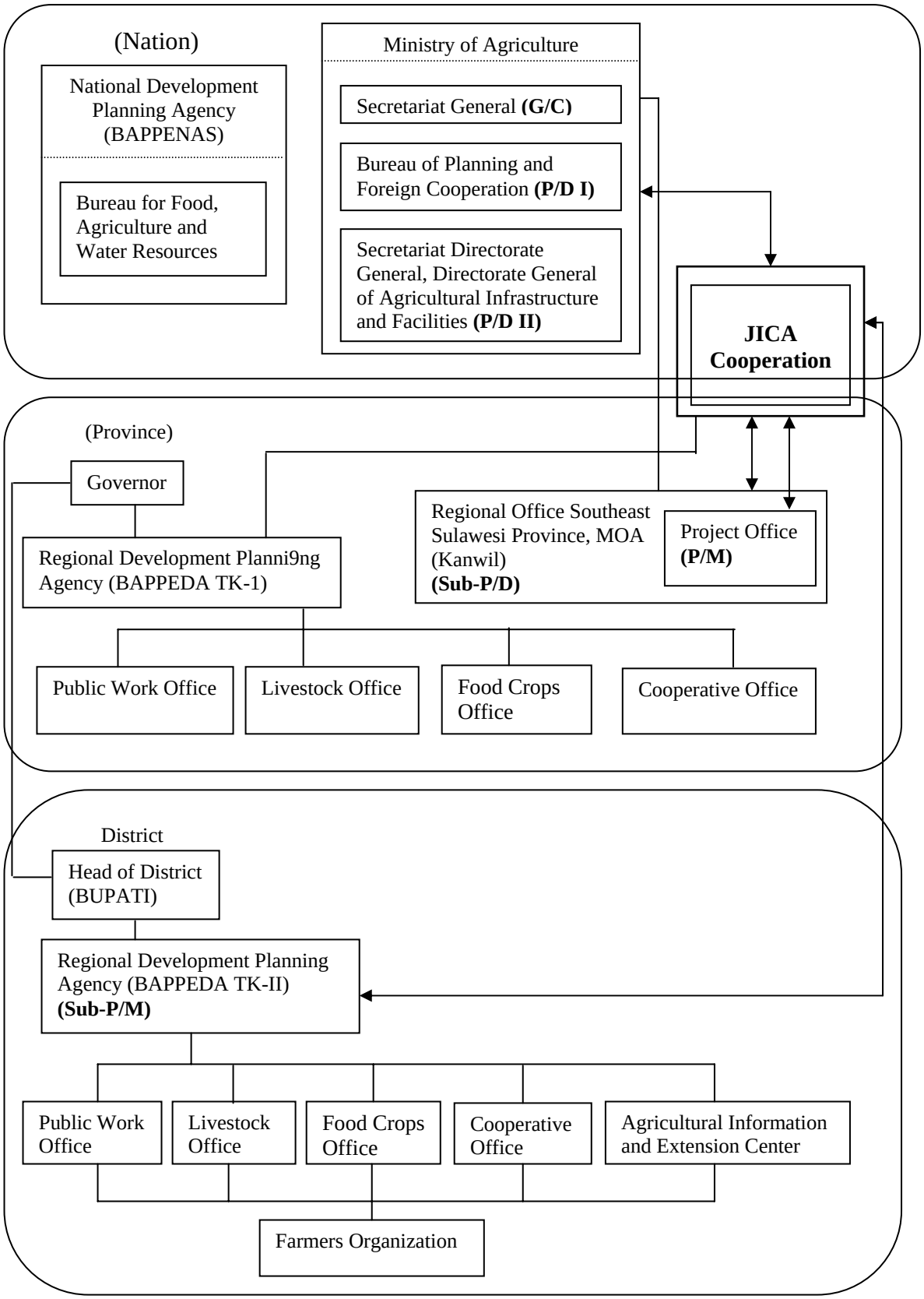
i)	Counterparts	:	16 C/P
ii)	Supplement Cost	:	Rp 247,601,000

2.4 Project Organization

For executing the project activity, the project organization is set up, covering institutions in both central government and project area. The Secretary General of the Ministry of Agriculture (MOA) as the General Coordinator and will be responsible for the general coordination of the project. The Head of Bureau of Planning and Foreign Cooperation under MOA as the Project Director I, will bear responsibility for the administration of project and the Secretary Directorate General of Agricultural Infrastructure and Facilities, MOA, as the Project Director II, will bear responsibility for the technical guidance of project. The Bureau for Food, Agriculture and Water Resources under National Development Planning Agency shall take role in project coordination.

The Head of Regional Office of MOA (KANWIL) in Southeast Sulawesi Province, as the Sub-Project Director will bear direct responsibility for administration and implementation of project. The Head Office under KANWIL as the Project Manager will be responsible for the managerial and technical matters. In the Government Provincial Level, the Regional Development Planning Agency (BAPPEDA) will bear responsibility to coordinate Agriculture Extension Service, Livestock Service, National Land Agency (BPN), Public Work Service, and Cooperative Office, in implementing the activities of project. Due to decentralization era (2001), KANWIL, was not longer exist and Agriculture Extension Service at Provincial level has taken over the responsibility of project sustainability. The organization chart is shown in Figure 2.2.

Figure 2.2 Organization Chart of Integrated Agricultural and Rural Development Project



CHAPTER III
APPROACH AND METHODOLOGY

3.1 Approach of the Study

Project Cycle Management (PCM) method is used for ex-post evaluation study for Integrated Agricultural and Rural Development Project in Southeast Sulawesi. The ex-post evaluation study is mainly expected to verify the impact and sustainability of project at the stage of more than three years after the end of cooperation period. From the element of project i.e., input, output, project purpose and overall goal, ex-post evaluation more focused on project purpose and overall goal. The evaluation seeks answers to the following main questions of impact and sustainability.

(a) Impact of the Project

- To what extend has the project's "overall goal" been achieved since the time of terminal evaluation?
- What "positive" and also "negative" impacts are observed as a result of the project?
- How the project contributed the improved institutional capacity of the implementing institution?
- Are there any external factor that have contributed to (or impeded) the achievement of "overall goal" of the project"?

(b) Sustainability of the Project

- To what extend have the benefits of the project continued (maintained) since the end of the cooperation period?
- To what extent is the outcome of the project expected to maintain?
- What are the major factors that have enhanced (or impeded) sustainability of the project?

The evaluation framework of impact and sustainability of project is shown in Figure 3.1.

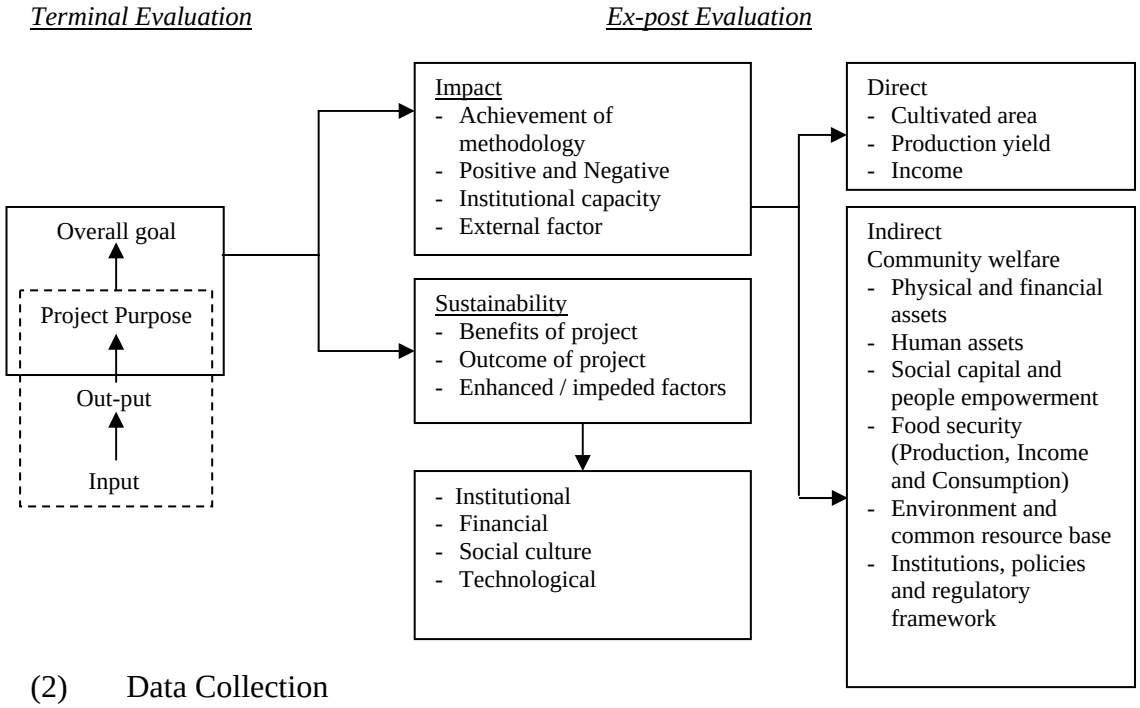
3.2 Methodology

(1) Project Design Matrix

Ex-post evaluation is carry out by preparing Project Design Matrix (PDM) and narrative summary, mainly for project purpose and overall goal. The objective verifiable indicators are verified objectively based on achievement of project purpose and overall goal. Both qualitative and quantitative data and information are proportionally assessed. The means of verification is developed to verify indicators, by preparing questionnaire for interviewing key beneficiaries and officials involved in the project and data collection,

documentations and reports related to the project implementation. The project design matrix is attached in Annex 1.

Figure 3.1 Evaluation Framework of Impact and Sustainability of Project



(2) Data Collection

Data collection was conducted during implementation of study covering documents, and report for reviewing the elements of project as well as achievement of project target. Based on this review, the key question and key informant have been identified and followed by preparing questionnaire for beneficiaries such as head of village, key farmer, farmer's group, official of sub-district office, head of village unit cooperative, extension worker and officials of Agriculture Extension Services, Livestock Extension Services, Estate Crops Extension Services, in Southeast Sulawesi Province. To implement data collection activity for both primary data and secondary data, field observation has been conducted to project sites by selecting sample of 4 villages as follow:

Table 3.1 Location of Village Samples

District/Sub District	Village	Village Sample
Konawe		
Konawe Selatan		
Ranomeeto	Ranomeeto Onewila	Ranomeeto
Palangga	Palangga Kiaea	Palangga Kiaea
Tinanggea	Lapulu* Wadonggo* Lalobao	Wadonggo
Lainea	Laeya	
Landono	Wonuakoa* Sabulakoa*	

* Separated from original village

The selection of village sample is based on distribution of eight (8) model villages that developed by project and distance from village sample to growth center.

(3) Data Analysis

Approach of data analysis covers descriptive analysis, evaluative analysis and intersection analysis of indicators of overall goal and project purpose. The quantitative data and qualitative data are presented in table and figure mainly for direct impact. The qualitative data for measuring sustainability, scoring method is used to get more reliable degree of impression in transferring qualitative to quantitative ones. The measurement of rural poverty impact and dynamic processes triggered by the project is arranged by rating. Assessment of change such as presence and direction of change is measured by (+, 0, -); dynamic processes with rating High–Substantial–Modes–Negligible, while sustainability potential with rating Highly Likely–Likely–Unlikely–Highly Unlikely.

The main domains of rural poverty impact of such as physical and financial assets; human assets, social capital and people empowerment and food security are analyzed with its sustainability potential through intersection analysis. Table 3.2 shows guiding framework of the change related to rural poverty impact and sustainability.

Table 3.2 Guiding Framework of the Change Related to Rural Poverty Impact and Sustainability

Main Domains Impact	Description	Presence and Direction of Change (+), (0), (-)	Dynamic Processes Triggered by the Project	Sustainability Potential
1. Physical and Financial Assets	1.1 Farm households' physical assets (i.e. farmland, water, livestock, trees, equipment, etc.) 1.2 Other household assets (houses, bicycles, radio, etc.) 1.3 Infrastructure and people access to markets (transport, road, storage, etc.) 1.4 Household financial assets (saving and debts) 1.5 Rural people access to financial services (credit, saving, insurances, etc.)			
2. Human Assets	2.1 Children nutritional and status 2.2 Maternal mortality 2.3 People professional skills			
3. Social capital and people empowerment	3.1 Rural people organization and institution 3.2 Rural people feel empowered (more effective role in decision making) 3.3 Rural producers feel empowered (better control of inputs supply and marketing of their products) 3.4 Access to information and knowledge			
4. Food Security (Production, Income and Consumption)	4.1 Farming technology and practices 4.2 Agricultural production (area, yield, production mix, etc.) 4.3 Non-farm activities/employment/income opportunities			

Main Domains Impact	Description	Presence and Direction of Change (+), (0), (-)	Dynamic Processes Triggered by the Project	Sustainability Potential
	4.4 Household real income and/or consumption level and pattern 4.5 Frequency of food shortage 4.6 Household food security			
5. Institutions policies and regulatory	5.1 Rural financial institution 5.2 Local public institution and service provision 5.3 National/sectoral policies affecting the rural poor			

CHAPTER IV
RESULT EVALUATION AND FINDING

4.1 Present Status of Project

(1) Government Administration

In the earlier, the implementation of project was located in Kendari District consists of five Sub-Districts and eight model villages. To accelerate regional development and to promote growth among rural areas and between urban and rural areas as well as promotion of self motivation in order to uplift rural community income, the provincial government has separated Kendari District became two new Districts namely Konawe District and Konawe Selatan District in 2001. The former eight model villages are still located in the same Sub-Districts of Konawe Selatan. The eight model villages have been separated to 10 villages as shown in Table 4.1.

Table 4.1 Present Situation of Administrative Area of Project

Past Situation		Present Situation	
District/Sub District	**Village**	**District/Sub District**	**Village**
Kendari		**Konawe**	
		Konawe Selatan	
Ranomeeto	Ranomeeto	Ranomeeto	Ranomeeto
	Onewila		Onewila
Palangga	Palangga	Palangga	Palangga
	Kiaea		Kiaea
Tinanggea	Lapulu	Tinanggea	Lapulu*
			Wadonggo*
	Lalobao		Lalobao
Lainea	Laeya	Lainea	Laeya
Landono	Sabulakoa	Landono	Wonuakoa*
			Sabulakoa*

* Separated from original village

Based on new change of local government administration, the responsibility of former project has been transferred from Kendari District to Konawe Selatan. At the present time the new district is still preparing and strengthening its organization as well as human resources to be fully operated. Relating with this situation, all activities of former project have been managing by Agriculture Extension Services at Provincial level. The activities that have been implementing in the project location covering agriculture extension, supervision and guidance, operation and maintenance of infrastructure and facility and improvement of high level intensification development system of rice, corn and cow.

(2) Agricultural and Rural Facilities

Generally some of farm machineries and tools such as tractors, sprayers, water pumps, grass cutters and other tools damaged caused by less maintenance. From total 123 units farm machineries, about 60 units damaged. Repairing of machinery such as hand tractors that can still be repaired was conducted by farmer's group, including new procurement to replace the heavy damaged tractor. Individual farmers have also procured new hand

tractors for farming activities and to be rented to other farmers. The conditions of farm machinery and tool are shown in Table 4.2.

Table 4.2 The Condition of Farm Machinery and Tool in 2002

No.	Type Equipment	Good	Damaged	Total
1	Rice Milling (RMU)	6	1	7
2	Hand Tractor	19	10	29
3	Power Sprayer	6	13	19
4	Sprayer	2	16	18
5	Grass Cutter	2	5	7
6	Irrigation Pump	2	5	7
7	Electric Welding Equipment	8	-	8
8	Gas Welding Equipment	5	3	8
9	Coconut Crusher	8	1	9
10	Power Thresher	5	6	11
	Total	**63**	**60**	**123**

In Ranomeeto village, irrigation facilities damaged due to earth slide with result cropping pattern in rice field changed from rice–rice–secondary crops to rice–secondary crops. Farmer's group is seemed not able to repair the damaged canal and need high cost. In Wadonggo (separated from Lapulu) and Wonuakoa villages, water discharge in check dam decreased, therefore farmers developed drilled well or developed secondary crops cultivation in lowland field. Rice Milling Units are still in good condition, mainly operated during harvesting time only, because many RMUs operate surrounding the model villages.

Improvement of farm road with hot-mix asphalt was done in 2002 along 2.5 km in Ranomeeto while in Kiaeya and Palangga, farm roads have been connected to other villages surrounding to be access road that constructed by other project.

The other agricultural facilities such as livestock action yards, seed storages, training facilities and communal wells are generally still in function. Maintenance of buildings is managed by farmer's group. Only auction yard in Laeya has been changed its function to be a school.

(3) Agriculture Extension

Agricultural extension activity is conducted by extension worker who placed in each village. Extension worker formulates program of extension with key farmers to continue the activity before. To support the extension worker in daily activity, provincial government prepares technical guidance on infrastructure and facilities, land, optimally activity, and farm machinery. Remitted former counterparts are still supervising farmer's groups in empowering their capability in farming activity, operation and management of farm machinery and stock fund management. Due to limited fund, extension and supervision activity decreased and intensive extension only conducted mainly to support the activity of improvement of high level intensification development system (SP-INTI) that conducted in selected villages.

Under the situation as mentioned above, there are some problems in stock fund management. The use of stock fund is not well planned where fund is not used for farm machinery maintenance with the result many types of machinery damaged.

In some farmer's groups, replacement of committee has been done without transfer between previous committee to new committee, with as a result the new committee has difficulty in managing stock fund. The latest condition of stock fund was recorded in 2002, as shown in Table 4.3.

Table 4.3 Stock Fund Conditions in Project Sites (2002)

No.	Village	Cash (Rp.)	Bank (Rp.)	Loan (Rp.)	Total (Rp.)
1.	Ranomeeto	9,186,600	2,787,500	4,358,600	16,332,700
2.	Onewila	9,223,688	267,300	36,250	9,527,238
3.	Sabulakoa	161,050	1,995,825	605,000	2,761,875
4.	Wonuakoa	11,400	-	116,000	127,400
5.	Laeya	3,480,325	1,589,000	2,251,250	7,320,575
6.	Palangga	382,650	244,000	618,000	1,244,650
7.	Kiaea	4,057,800	1,632,200	8,562,375	14,252,375
8.	Lalobao	1,152,340	-	-	1,152,340
9.	Lapulu	642,925	229,625	9,535,775	10,408,325
10.	Wadanggo	1,467,675	-	-	1,467,675
11.	Watumelewe*	1,172,825	50,000	-	1,222,825
12.	Moolo Indah*	1,760,000	-	-	1,760,000
	Total	**32,699,278**	**8,795,450**	**26,083,250**	**67,577,978**

* New expansion of model village

The progress of stock fund in villages sample at the end of March 2005 was recorded; Ranomeeto was Rp 6,010,000, Kiaea was Rp 314,987,000, Laeya was Rp 533,000: Wanuakoa Rp 20,000,000, Wadonggo was Rp 2,000,000, and in Onewilla, the stock fund was already exhausted.

Farmers reluctant to payback their loan with various reasons such as crop planting failure caused of biophysics factor and less of farmer's awareness on farm machinery that has been owned by community and need to be maintained and developed sustainable. In Kiaea, stock fund is managed by Village Unit Cooperative and stock fund in total, has increased due to supervision from related agencies, while in other villages, stock fund is managed by farmer's group association.

(4) Rural Economic Activity

Expansion of lowland and upland areas, improvement of harvested areas and crops production and carrying in and carrying out of production, agro-input and other goods that needed by community, make the economic activity in eight model villages improved. The existence of farm road and access road also triggered the increasing of transportation means to and from villages. Length of asphalt road, gravel road and soil road increased to 80 km, 42 km and 59 km respectively or increased in average of 295%. Improvement of road facility as well as increasing farmer's income probably triggered the number of vehicle and motorcycle with 457% and 344% respectively. Number of bicycle also

increased with 217%. The available of transportation infrastructure is very important because spatial integration of a community mainly has a close relationship with physical hooked through transportation network. The road availability will decrease travel time, decrease transport cost, expansion market segment, increase people mobility and others. Besides, rural traditional market improved from weekly market to three days market per week in Ranomeeto, and two days market per week in Kiaea and Palangga villages. Number of kiosks in market also increased in line with trading activity in each market. Farmer sells the products such as vegetables and soybean and peanut to village market, while middleman or collector buys gabah/paddy directly to farmer in the village.

Additionally the improvement of farmer's income also increased the supply of electronic goods to village community. Number of television and radio increased in all model villages.

The photograph of current situation of the project can be seen in Annex 2.

4.2 Impact

Various activities have been carried out by the project such as construction of check dam, irrigation canal, construction of farm road, distribution of farm machinery and equipment, guidance to the farmers that simultaneous have promoted the self-reliance among farmers in their farm management practices.

The impacts of the project activities in the project site cover expansion of farmland area, improvement of crops production and productivity, increasing farmer's income, and improvement of farmer's living standard.

(1) Expansion of Cultivation Area

Before implementation of the project, the areas of the lowland rice in the project were 271 hectare and until March 2005, area of lowland rice increase to 1,331 hectares, consist of 59.9 hectare was developed by the project and 1,005.1 hectares was developed by the farmers.

Table 4.4 shows the comparison of cultivated area before and after project implementation.

The expansion of the cultivation area in the model village mainly caused of:

a) Expansion of lowland rice area;

b) The availability of power tiller;

c) The skill and knowledge of farmer has increased in operating farm machinery and tool; and

d) Irrigation system has functioned well.

The direct impact of land reclamation conducted by project followed by demonstration of cultivation technique is reflected by land reclamation conducted by farmers. Table 4.4

shows lowland rice area that developed by project and by farmers is 1 : 17. It means, one hectare lowland rice developed by the project has encouraged and promoted self- reliance of farmers to develop 17 hectares lowland rice by themselves.

Table 4.4 Comparison between Existing Cultivated Area Before and After Project Implementation

No.	Village	Before Project	Land Development by the Project	Land Development by Farmer	Aftercare (2002)	Post Evaluation (Mar. 2005)	Remarks
1.	Ranomeeto	35	21.9	164.1	183	221	
2.	Palangga	60	15	52	127	127	
3.	Kiaea	30	0	155	183	185	
4.	Lapulu Wadonggo	139	5 (in Wadonggo)	274	363	418	During the project implementation Wadonggo is a part of Lapulu
5.	Laloboa	0	12	48	15	60	
6.	Laeya	0	-	145	21	145	
7.	Wanuakoa & Sabulakoa	0	5 (in Sabulakoa)	40	40 (35 ha in Wanuakoa)	40	During the project implementation Wanuakoa is a part of Sabulakoa * For secondary food crops due to lack of water irrigation
8.	Onewila	7	1	127	82	135	
	Total	**271**	**59.9**	**1,005.1**	**1,014**	**1,331**	

There are six (6) models of farming in project area, as described below.

Table 4.5 Farming Models in Model Villages

Village	Main Development Model
Ranomeeto	Improvement model of Paddy, Secondary crops, estate crops & livestock
Onewila	Improvement model of drainage condition of paddy field and upland rice
Palangga	Rural development model by combination farming with Paddy, Secondary crops, estate crops
Kiaea	
Lalobao	Improvement model of Paddy and Secondary crops
Lapulu	
Laeya	Development and Improvement model of Secondary crops, estate crops and livestock
Sabulakoa	Improvement model of agricultural infrastructure on paddy field

In Laeya and Onewila, land development has increased significantly. As effect of field demonstration by means of both land development and crops cultivation technology, makes farmers develop new lowland by converting forest and grassland. Estate crops planting area is also developed by project in Ranomeeto, Palangga and Kiaea with 2, 3.5 and 5.5 hectares respectively.

Land reclamation development of each village is shown in Annex 3.

(2) Uniformity of Planting Time

The uniformity of planting time in homogenous area has improved, therefore rate of pests attack can be minimized due to:

a) Availability of check dam and irrigation canal with better water management at farm level; and

b) Availability of stock fund that can be used for buying certified seeds, fertilizers and pesticides.

The uniformity of planting time is reflected by cropping pattern in each village area.

Table.4.6 Existing of Cropping Pattern in Each Village

Village	Cropping Pattern
Ramomeeto	Paddy - Paddy - Secondary crops (maize, peanut, soybean and vegetables) Paddy - Secondary crops - Secondary food crops
Palangga	Paddy - Paddy - Fallow Paddy - Secondary crops - Secondary food crops
Kiaea	
Lapulu/Wadonggo	Paddy - Secondary crops - Secondary food crops Paddy - Secondary crops
Laloboa	Paddy - Secondary crops Paddy - Fallow
Sabulakoa/Wonuakoa	Paddy - Secondary crops Secondary crops - Secondary crops
Onewila	Paddy - Secondary crops Paddy - Fallow

Better infrastructure and facilities for agricultural products made the farmer's behavior changed from often waiting rain fall for transplanting to planting time arrangement based on water supply from irrigation canal. The frequency of paddy planting (cropping index) has changed significantly from one time planting to two times planting in a year. Furthermore the margin that earned by farmer has increased.

(3) Improvement of Crops Production and Crops Productivity

The average of paddy planting area, production and productivity in villages sample is shown in Table 4.7.

The project implementation during 1991 to 1998 has a great contribution in increasing crops production, especially for lowland rice by transferring knowledge and technology to farmer. The farmers feel that they have received knowledge and new experience in farming system practices. Now, they have applied skill and knowledge in daily activity by using agro-input for better farming practices. In the other hand, irrigation system development will encourage and improve farmer's motivation in cultivating crops planting.

Table 4.7 The Average of Rice Field Planting Area, Production and Productivity

Village	Planting Area		Production (kg)		Productivity (kg/ha)	
	2001	2004	2001	2004	2001	2004
Ranomeeto	1.50	1.94	3,539	6,656	2,352	3,431
Kiaea	0.70	0.70	1,793	2,125	2,481	3,036
Palangga	0.50	0.78	1,223	1,875	2,204	2,403
Wadanggo	0.65	0.70	1,409	1,750	2,169	2,499
Average	**0.84**	**1.03**	**1,991**	**3,102**	**2,302**	**2,842**

* Source: Haluoleo University, Provincial Agricultural Office and JICA (2001) and Primary Data Processing

During 2004, lowland rice productivity in village sample improves in average of 45.9%, 22.4%, 9.0% and 15.2% in Ranomeeto, Kiaea, Palangga and Wadonggo village respectively. In Ranomeeto, the development of basic agriculture infrastructure is focused on irrigation system, farm road and farm machinery such as power tiller available enough that operated by farmer's group and private. This village location is very close to Kendari city. Additionally, agricultural kiosk is also available in Ranomeeto to supply agro-input that needed by farmer's group. Farmer groups and village unit cooperative existences in project are very important especially to agro-input procurement and distribution. From the technological and institutional points of view, the impact is high.

(4) Increasing Farmers Income

The average of annual household income in the village sample is Rp. 9,798,000 and the lowest is recorded in Wadonggo as shown in Table 4.8 below.

Table 4.8 Comparison between Household Income in 1997, 2001 and 2004 in Village Sample

Village	Household Income (Rp. 000)		
	1997	2001	2004
Ranomeeto	13,330	8,564	13,450
Kiaea	2,110	4,083	9,238
Palangga	8,870	2,818	8,388
Wadanggo	11,707	5,527	8,026
Average	**9,004**	**5,248**	**9,776**

* Source: Haluoleo University, Provincial Agricultural Office and JICA (2001) and Primary Data Processing

Table 4.8 reflects farmer's income in 2004 that was indicated higher than 2001. It is generally caused of fluctuation of price of agricultural products, biophysical factors, inflation rate, and expansion of cropping pattern area and also data collection methodology. Result of survey is a reflection of agriculture and rural condition performance at that time.

Although the majority of the rural communities work in the agriculture sector, it could not be said that all the household income sources come from agricultural activities. In reality, farmer in the village samples is also depending on off-farm activities, such as carpenter, small trader and other jobs. However, household income sources mainly still depending on on-farm activities. Source of on-farm income is earned from rice, secondary crops and perennial crops. Maize, peanut, soybean and long bean are cultivated after rice harvesting

as inter-cropping, while perennial crops such as cashew nut, cocoa, coffee and pepper are planted in dry land.

Table 4.9 Farmers Income Based on Farm and Non-Farm Activities in 2004

Village	Income				
	On-Farm		Non-Farm		Total
	Value (Rp. 000)	%	Value (Rp. 000)	%	
Ranomeeto	10,625	79.00	2,825	21	13,450
Kiaea	7,463	80.79	1,775	19.21	9,238
Palangga	7,488	89.27	900	10.73	8,388
Wadanggo	6,713	83.64	1,313	16.36	8,026
Average	**8,072**	**83.18**	**1,703**	**16.83**	**9,776**

* Source: Primary Data Processing

From Table 4.9, the percentage of on-farm farmer income was indicated highest in Palangga village, while in Ranomeeto was the lowest. The highest off-farm income was indicated in Ranomeeto. The location of village that close to Kendari city causes many possibility of off-farm activities were taken by farmers at Ranomeeto. Additionally Ranomeeto is also a Sub-District capital.

(5) Consumption Patterns

Increasing income will automatically trigger increasing expenditure of farmer's household. An increased income tends to be followed by increased consumption or expenditure. The yearly farmer's expenditure in village samples is shown in Table 4.10 below that consist of expenditures structures for food, and non food such as clothes, houses, education, transport, social, religious, and taxes.

Table 4.10 Farmers Expenditure in 2001 and 2004

Unit: Rp. (%)

Village	Expenditure					
	Food		Non-Food		Expenditure	
	2001	2004	2001	2004	2001	2004
Ranomeeto	304,495	487,500	238,715	518,750	543,210	1,006,250
	(52.6)	(48.4)	(47.4)	(51.6)	(100.0)	(100.0)
Kiaea	297,386	362,500	95.096	337,500	392,482	700,000
	(75.8)	(51.8)	(24.2)	(48.2)	(100.0)	(100.0)
Palangga	255,107	382,500	55.350	281,250	310,457	663,750
	(82.2)	(57.6)	(17.8)	(42.4)	(100.0)	(100.0)
Wadanggo	284,421	378,500	104,212	237,500	388,633	616,000
	(73.2)	(61.4)	(16.8)	(38.6)	(100.0)	(100.0)
Average	**285,352**	**85,769**	**310,428**	**343,750**	**417,696**	**746,500**
	70.95	**26.55**	**39.7**	**45.2**	**100**	**100**

* Source: Haluoleo University, Provincial Agricultural Office and JICA (2001) and Primary Data Processing

Table 4.10 shows that in Wadonggo indicated the lowest expenditure, while in Ranomeeto is the highest. Compared to 2001, the farmer's expenditures in 2004 increased by 83% in average. Increasing education fee, food consumption pattern, goods consumption and other consumptive's behavior, make the farmer's expenditure increased. From the financial point of view, the impact is high. Table 4.11 below shows the percentage of household expenditure structure in 1991, 2001 and 2004. The progress of expenditure for food in village samples almost decreasing while expenditure for non food almost increasing. It seems the prosperity level of settlers in village samples tend improving.

Table 4.11 Structure of Household Expenditure in 1991, 2001 and 2004

Village	Expenditure					
	Food (%)			Non-Food (%)		
	1991	2001	2004	1991	2001	2004
Ranomeeto	82.6	52.6	48.4	17.4	47.4	51.6
Kiaea	73.6	75.8	51.8	16.4	24.2	48.2
Palangga	74.3	82.2	57.6	15.7	17.8	42.4
Wadanggo	71.8	73.2	61.4	18.2	16.8	38.6
Average	**75.6**	**71.0**	**54.8**	**16.9**	**26.6**	**45.2**

* Source: Haluoleo University, Provincial Agricultural Office and JICA (2001) and Primary Data Processing

(6) Community Welfare

As noted early, the positive impact of the integrated agricultural and rural development in Southeast Sulawesi composed of expansion of cultivated area, uniformity of planting time, improvement of farm production and productivity, increasing of farmer's income, and increasing of farmer's consumption.

Increasing income of farmers has affected the living standard of rural community. The Integrated Agricultural and Rural Development Project (IARDP) have succeeded in changing farmer's behavior from moving farmers or shifting cultivation farmer to settled farmers. The physical condition of farmer's houses have been improved which is indicated by decreasing number of temporary houses and increasing number of semi or full permanent houses.

Decreasing proportion of food consumption and increasing of non food expenditures reflect there is big change in rural life. This condition indicates the prosperity level in rural area has been getting improved. The fulfillment of other needs such as clothing, housing, education, health and participation in the village development are also getting higher. From the social point of view, the impact is high.

Result of field observation, interviews and discussion with all persons interviewed previous that the negative impacts if any, is negligible.

Assessment of socio-economic impact in rural community by farmer's perception generally fairly to largely improved, such as shown in Annex 4, and profile of farmers' respondent in Annex 5.

4.3 Sustainability

To ensure the sustainability of the IARDP that conducted in eight model villages, the identification of impact assessment including existing of community behavior changing is needed to assess sustainability potential in project area.

(1) Physical and Financial Assets

Project implementation in village model area has a big contribution to increase household assets such as cattle, poultry and power tiller, radio, television and better housing. Improvement of infrastructure such as road, bridge made the mobility of settler easier to access market and other places. In addition, access to financial services improved by established village unit cooperative. (KUD)

(2) Human Assets

With regard to the increasing farmer's income, children nutritional and access to primary school have improved; maternal mortality decreased and farmer's skill and knowledge improved as a result of implementation of guidance and agriculture extension and training.

(3) Social Capital and Community Empowerment

Rural community organization and institution improved both in number and activities such as adult and youth farmer's group, women farmer's group, water user association, and farmer group association. The rural community has also being empowered by better control of agro-input and marketing of their products.

(4) Food Security

Increasing farmer's skill and knowledge that practiced on farm has improved food production. Household income and consumption also increase and household food stock has enough secure because not all productions are sold. In general, maize as a secondary food crop which is planted as intercropping with peanut and/or soybean is not to be sold and used as stock food.

(5) Institution, Policy and Regulatory

As an integral part of national development, regional development is an effort to promote growth and equity among regions, as well as among sectors. This development is especially directed to open and accelerate the development of remote area, critical area as well as under developed areas.

The Ministry of Agriculture and Provincial Agricultural Office have made efforts to support the sustainability activities by preparing national and local budget started in 2002 up to present. The field counterpart and extension worker are still supervising and guiding the former project activity. Details information on national and local budget allocation is presented in Annex 6.

4.4 Factors Affecting the Impact

Factors affecting the impact cover technology, operation and maintenance of farm machinery and farm tool and performance of farmer's group.

(1) Optimal use of agricultural infrastructure

The optimal use of basic agricultural infrastructure and rural facilities can be promoted of positive impact by better farming in rural farming. Basic agricultural infrastructure mainly irrigation structure, water management on farm level, farm road and other farm facilities is part of getting agriculture moving.

(2) Maintenance of Farm Machinery and Equipment

Farm machinery and equipment that available in rural community area can be accelerated land development for farming purposes. Utilizing power tiller will be reduced working hours on land preparation effectively and efficiently.

(3) Production Technology

Application of farming technology as implemented on demonstration plot is crucial factor to maintain farm production. In field reality, rice field planting and fertilizing are still in improved.

(4) Empowerment of Farmers Group

Planting time and the variety used can be decided by farmers groups through the meeting of farmer group association and continued by farmers groups meeting in their respective group in order to formulate the detail of the definitive planning of farmers group.

The utilization, maintenance and sense of belonging to existing infrastructure, various rural facility, farm machinery and equipment in the respective village can be performed by the farmers group smoothly.

4.5 Factors Affecting the Sustainability

Factors affecting the sustainability cover behavior changing, stock fund beneficially and government program on community empowerment rural development

(1) Community Behavior

The project has changed community behavior in agricultural practices. Generally shifting cultivation usually practiced by settler from Tolaki ethnic in production upland rice that conducted without technology input. The project has changed the community behavior to modern agricultural practices:

a) From shifting cultivation to settled farming system.

b) From subsistence farming to commercial farming practices.

(2) The Stock Fund System

Stock fund system is aimed to improve capability of farmers group especially in farming capital need. The rule of stock fund loan is made by project and discussed by community based on their capability in repayment of loan. The strong leadership of key farmer and responsibility of members made the availability of stock fund is strong needed by farmer in their farming. In these villages, there is no micro financial institution in rural area. It is expected for long-term development, the government should establish this institution to strengthen rural credit system.

(3) Government Assistance

Agriculture extension is an activity without ever ending because technology is always changing, such as new variety, training and others. It is expected that government assistance is still needed to improve farmer's capability especially for continuing supervision and guidance and create the conducive climate in production and distribution of agricultural products. After termination of project, both central government and local government have been allocating budget for continuation the former project activity.

CHAPTER V
LESSONS LEARNED

The Integrated Agricultural and Rural Development in less developed area cover the development of natural resources and human resources. The project will success if all stakeholders are involved in planning to use natural resources with environmental perception. One aspect of the successful of project is bottom-up planning method by implementing Participatory Rural Appraisal. Input of experts, assignment of counterparts and rural community has been involved during initial of project mainly in planning stage. The existence of experts also accelerates transfer of technology and skill to counterpart and key farmer and in addition, training is conducted to strengthen skill and capability for both government officials and farmers.

It can be said, planning of the project is formulated based on farmer's needs. That is why land reclamation conducted by farmer is larger than developed by project. Reason of this phenomenon is project also established basic agriculture and infrastructure including farm machinery and tool the trigger agriculture and rural development. Although planning is made by participative approach, without support any basic infrastructure development, the purpose of project difficult to be achieved, Community in less developed area doesn't have capability in developing physical buildings.

The project activity is not simultaneously conducted in eight model villages. Selection of location that is occupied by mostly immigrant settler may be a way for successful development. But project is implemented in the villages that are occupied not only mostly by immigrant settler but also local ethnic settler that developed close to project termination.

Less supervision to the latest development such as in Lalobao, Laeya and Sabulakoa as second stage development causes development still left behind from the earlier development such as Ranomeeto, Kiaea, Lapulu and Palangga. Extension and follow up of project, continued by after care have been conducted, the progress of the second stage in the village as mentioned above still not compete with the first stage development.

Management of stock fund seems to be increased due to leadership level of key farmer. In the other the stock fund is strong needed by farmer in getting capital production activity. During after care program in 2000 to 2002, stock fund was still in function. Now the situation has changed in some villages, because of less supervision, monitoring and guidance.

CHAPTER VI
OVERALL CONCLUSION

The Project has succeeded in promoting integrated agricultural and rural development plan methodology. It is important not only to construct basic agricultural infrastructure, and farm machinery and equipment but also effort to improve the capability of human resources.

The impact of the implementation of the project activities to the project site are expansion of the cultivation area, uniformity of planting time, improvement of crop production and productivity, increasing of farmers income and expenditure and improvement of rural community welfare.

Until March 2005, ratio of lowland rice area between developed by project and by farmers is 1 : 17. It means one hectare lowland rice that developed by the project can promote self reliance of farmer by developing 17 hectares. Productivity level improves in average of 23.5% than 2001.

Farmer's income during 2001 to 2004 is also increase in average of 86% with average proportion of on-farm income and off-farm income is 83% and 17% respectively. Furthermore, increased of farmers income has followed by increased farmer expenditure. Comparison of farmer's expenditure between 2001 and 2004 occurred show the increase of 83%.

With regard to the increase of farmer's income, the living standard of rural community also improves. Integrated agricultural and rural developments have succeeded in changing farmer's behavior from moving farmers to residing farmers and in general the impact of project is high. The negative impact is negligible.

To ensure the continuing of integrated agricultural and rural development in rural community, identification of impact is needed to access sustainability potential in project area. Identification to assess sustainability consists of physical and financial assets, human assets, social capital and community empowerment, food security and institution, policies and regulatory. Based on the evaluation study, the project is highly sustainable.

CHAPTER VII
RECOMMENDATION

The Integrated Agricultural and Rural Development in indigenous area that have been conducted successfully in Southeast Sulawesi should be formulated as one of the methodology system in developing similar area throughout Indonesia. The farming system mastery should be based on specific location of model village and the use of natural resources for economic activity should consider environmental perception or environmental friendly. The selection of crops is also based on land capability and level of crop planting difficulty in crops cultivation.

The supervision and guidance to strengthen stock fund management should be continuously conducted in order the stock fund often available mainly in preparing crop planting period. The existence of stock fund management can be strengthened to be corporate body such as agriculture cooperative, rural financial institution where related agencies will supervise and control the use of stock fund. The stock fund that is managed by Village Unit Cooperative looks better in supply and repayment of loan.

To prolong the life time of farm machinery and equipment ex project or owned by farmer, the existence of mechanic in rural area is a need. New training is still needed because some mechanics have moved to private sector. It is also recommended to establish moving mini workshop to repair machinery and equipment that dispersed in villages. Agriculture Extension Services manages this moving workshop because still sufficient spare parts and tools ex project and mechanics are available.

Relating to autonomy era, the responsibility to sustain the activity of former project has been transferred to Konawe Selatan District. It should be conducted as stages and need District staff empowerment. If possible, the former counterparts at Provincial level are to be transferred to District level. It is seemed to accelerate the capability of District staff in managing natural resources as well as human resources, the action plan on capacity building can be implemented. Domination of Provincial in planning, actuating, monitoring and supervision should change, because District government has responsibility to utilize and develop natural resources.

Basically, rural area development is a coordinated program that composed of technical, social-economy, financial and cultural aspects from many sectors. The Regional Development Planning Board should take important role in coordination of planning, monitoring and evaluation. The comprehensive program that formulated in spatial plan, master plan, midterm plan and annual plan is challenge for increasing prosperity and poverty alleviation in the region.

ANNEX 1
Project Design Matrix for Ex-Post Evaluation

Annex 1. Project Design Matrix for Ex-Post Evaluation

Project Title : Integrated Agricultural and Rural Development
Executing Agency : Regional Official of MOA/Agriculture Extension Services
Project Location : Southeast Sulawesi Province
Project Period : 1996 – 2002

Narrative Summary	Objectively Verifiable Indicators	Mean of Verification	Important Assumption
Overall Goal Integrated Agricultural and Rural Development Methodology System	Improvement of farming system, rural economic activity and community welfare has been achieved	Questionnaire to government official at provincial level up to village level Questionnaire to key farmer, farmer's group, farmer's household and rural institutions Report and related documents	Price of commodity mainly during harvesting time does not fall0 Biophysical factors Operation and maintenance of farm machineries management does not change
Project Purpose Introduce knowledge and technology	Knowledge and skill of officials and farmers have been applied	Reports and documents Questionnaires to Head of Village and rural institutions	Replacement of officials to other regions Skilled machinery technician moves to private sector
Higher production and productivity	Production and productivity have increased significantly	Questionnaire to Key farmer association, key farmer and farmer's group and farmer's household	Limited agro-input supply with expensive price
Diversification of agriculture production	Cropping pattern, uniformity of planting time and estate crops planting food crops, horticulture have been practiced		Biophysical factors such as drought and flooded
Increase farmer's income	Expenditure structure of farmer's household has changed		Harvest failure due to pest and diseases attack
Decrease poverty	Human assets, food security, physical and financial assets has improved		Uncontrolled consumption expenditure

Narrative Summary	Objectively Verifiable Indicators	Mean of Verification	Important Assumption
Output Formulation of the integrated agricultural and rural development plan methodology	Methodology and system of the integrated agricultural and rural development has been established	Reports and related documents Agricultural and socio economic data of MOA and related institutions	
Consolidation of agricultural and rural infrastructures	Consolidation of both infrastructures are combined successfully	Questionnaires to Head of Village and rural institutions	
Promotion of cultivation technique and farming management	Realized by expansion of cultivation area, uniformity of planting time, improvement of crop production and productivity, increasing of farmers income and expenditure and improvement of rural community welfare	Questionnaire to Key farmer association, key farmer and farmer's group and farmer's household	
Strengthening of farmer's groups	The strengthening and empowerment of farmer's group is succeed and realized by smoothly performing of farmer's group in utilization, maintenance and sense of belonging to existing infrastructure, various rural facility, farm machinery and equipment in the village		
Transferring of appropriated technology	Appropriated farming technology in order to maintain farm production has been highly achieved, proofed by the productivity level improve in averages of 23.5% than 2001		
Activity 1. Planning of the integrated agricultural and rural development 1.1. Planning of land use and farming system 1) Land use 2) Farming system	Land use and farming system plan are available.	Reports and related documents: Land use survey report, land use plan Farm management technology and farming plan study report Questionnaires to Head of Village and rural institutions	

Narrative Summary	Objectively Verifiable Indicators	Mean of Verification	Important Assumption
1.2. Planning of agricultural and rural infrastructure 1) Land survey 2) Plan and design of agricultural and rural infrastructure	Agricultural and rural infrastructure plan are available.	Land reclamation, basic agricultural infrastructure, agricultural and rural facilities plan Questionnaire to Key farmer association, key farmer and farmer's group and farmer's household	
2. Development planning of agricultural and rural infrastructure 2.1. Development of basic agricultural infrastructure 1) Land reclamation 2) Basic agricultural infrastructure 2.2. Development of agricultural and rural facilities 1) Work execution 2) Construction management	Agricultural and rural infrastructure development plan are available.	Reports and related documents Land reclamation by machinery, construction management, machinery operation and maintenance. Work execution, construction management. Questionnaires to Head of Village and rural institutions Questionnaire to Key farmer association, key farmer and farmer's group and farmer's household	
3. Demonstration of cultivation and farming techniques 3.1. Trials on improved farming technology 3.2. Demonstration and extension of farming technology 1) Paddy 2) Secondary food crops 3) Estate crops (cashew nut)	Improved farming technology has been tried. Extension of farming technology has been demonstrated.	Reports and related documents Nature condition and agriculture system including soil condition, cultivation technique, and yield components, improved techniques and verification trial, including transplanting rice culture, nursing, fertilizer, water management, plant protection, upland paddy, main-land preparation, seeding density, and split application method	

Narrative Summary	Objectively Verifiable Indicators	Mean of Verification	Important Assumption
4. Strengthening of farmer's group 4.1. Study on farmer's group 1) Present activities in the village 2) Review of the village formation 4.2. Formation and strengthening of farmer's group on the construction activities 1) Group formation 2) Counseling 4.3. Supporting activities for strengthening of farmer's group	Farmer's group has been strengthened	Farmer's group and their tribal composition survey Survive capability and willingness of farmers Agricultural and socio economic data of MOA and related institutions Questionnaires to Head of Village and rural institutions	
5. Training of government officials, key farmers and farmer's group 5.1. Planning method of agricultural and rural development 1) Agricultural and rural development plan 2) Machinery operation and maintenance 5.2. Farm management and cultivation techniques 1) Paddy 2) Secondary food crops 3) Estate crops (cashew-nut) 4) Diversification system 5) Water management (on farm level) 5.3. Farmer's group 1) Paddy 2) Secondary food crops 5.4. Other training 1) Farmer's youth training 2) Less experienced farmers training 3) Farmer's day 4) Study tour to improved farming area	Government officials, key farmers and farmer's group has been trained	Reports and related documents Data on farmer's group, land holding, crop growing, family composition, and tribal background Trainings and courses method and organization system Number of courses provided each year and the result Participant willingness to the training/ courses by year and by village Questionnaire to Key farmer association, key farmer and farmer's group and farmer's household Agricultural and socio economic data of MOA and related institutions	

Narrative Summary	Objectively Verifiable Indicators	Mean of Verification	Important Assumption
		Questionnaires to Head of Village and rural institutions Questionnaire to Key farmer association, key farmer and farmer's group and farmer's household	

ANNEX 2
List of Photograph of Current Situation

Road Bridge in Ranomeeto village

Village meeting hall in Ranomeeto village

Check dam in Ranomeeto village

Irrigation canal was damage in Ranomeeto village

Machinery storage in Ranomeeto village

PPL office in Ranomeeto village

Rice milling unit in Ranomeeto village

Rice miling unit in Ranomeeto village

Rice Milling Unit in Watumelewe village (removal from Sabulakoa)

Rice field in Lalobao village

Rice field in left block was developed by project and right block was developed by farmers in Lalobao village

Rice field was developed by farmers in Lalobao village

Farm road in Lalobao village

Rice field in Wadonggo village

Farm road in Wadonggo village

Rice field in Lalobao village

Rice field block in Wadonggo village

Rice field block in Kiaea village

Farm road was developed by sub. District development fund in Kiaea

New farmers house in Kiaea village

Farm road in Kiaea village

Rice milling unit in Kiaea village

Waserda (mini market) village unit cooperative in Kiaea village

Farmers house in Kiaea village

Road Bridge in Palangga village

Farm road in Palangga village

Rice field in Palangga village

New farmer house in Palangga village

Rice milling unit in Palangga village

Auction yard has been changed to elementary school in Laeya village

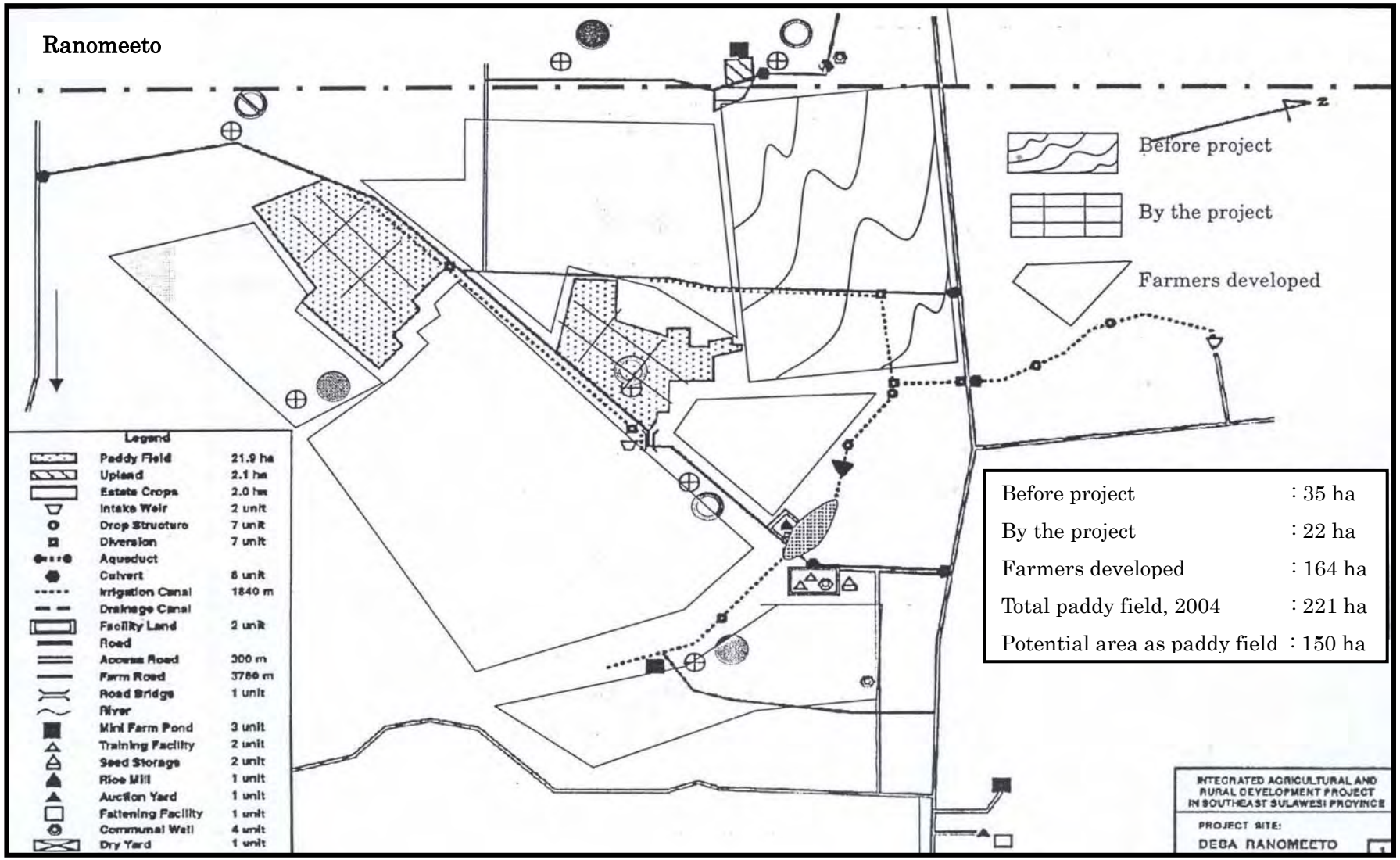
Auction yard has been changed to elementary school in Laeya village

Agricultural Extension Worker (PPL) office in Laeya village

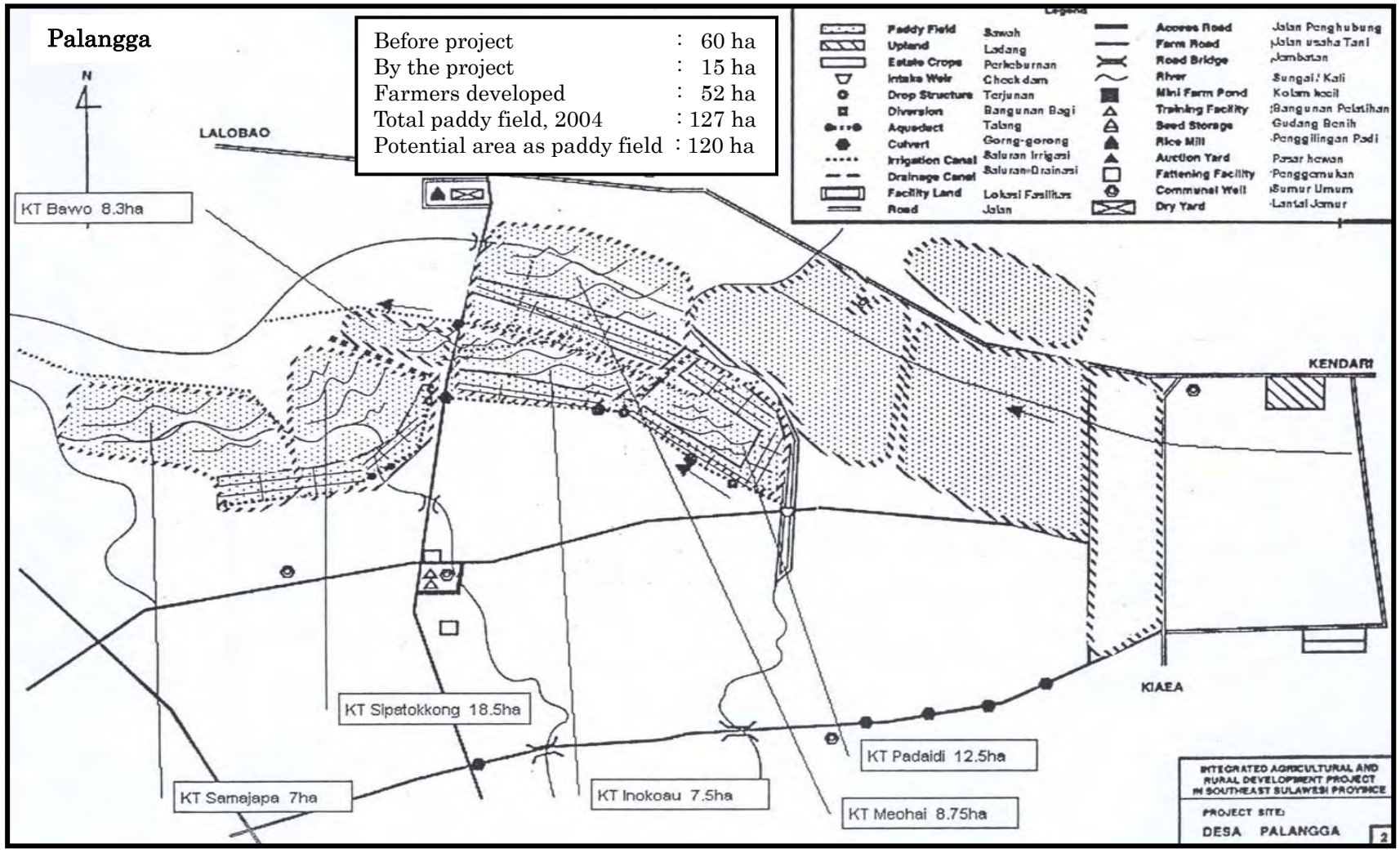
The farmer house in Laeya village

ANNEX 3
Maps of Model Villages

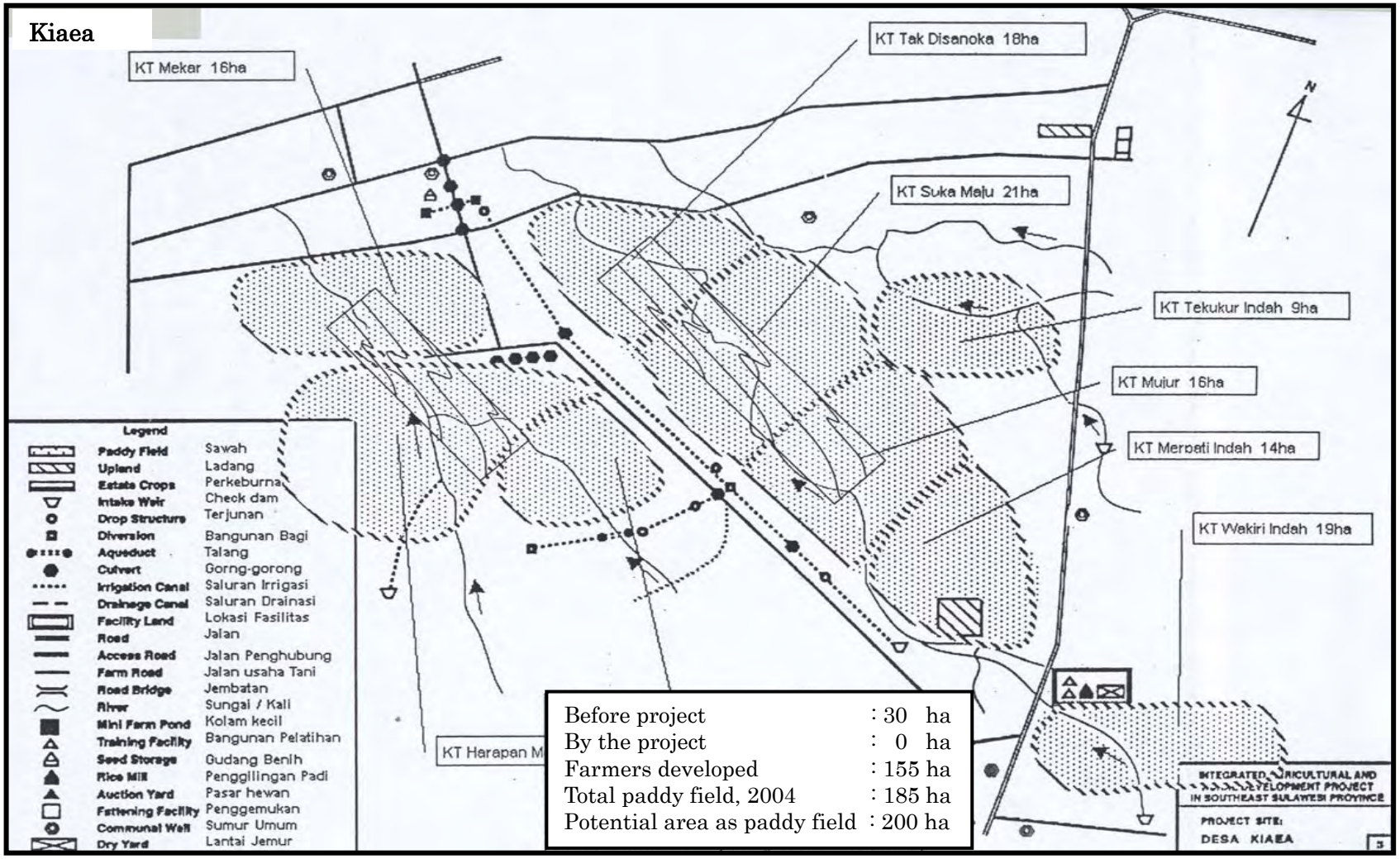
Annex 3.1 Land Reclamation Developments in Ranomeeto Village



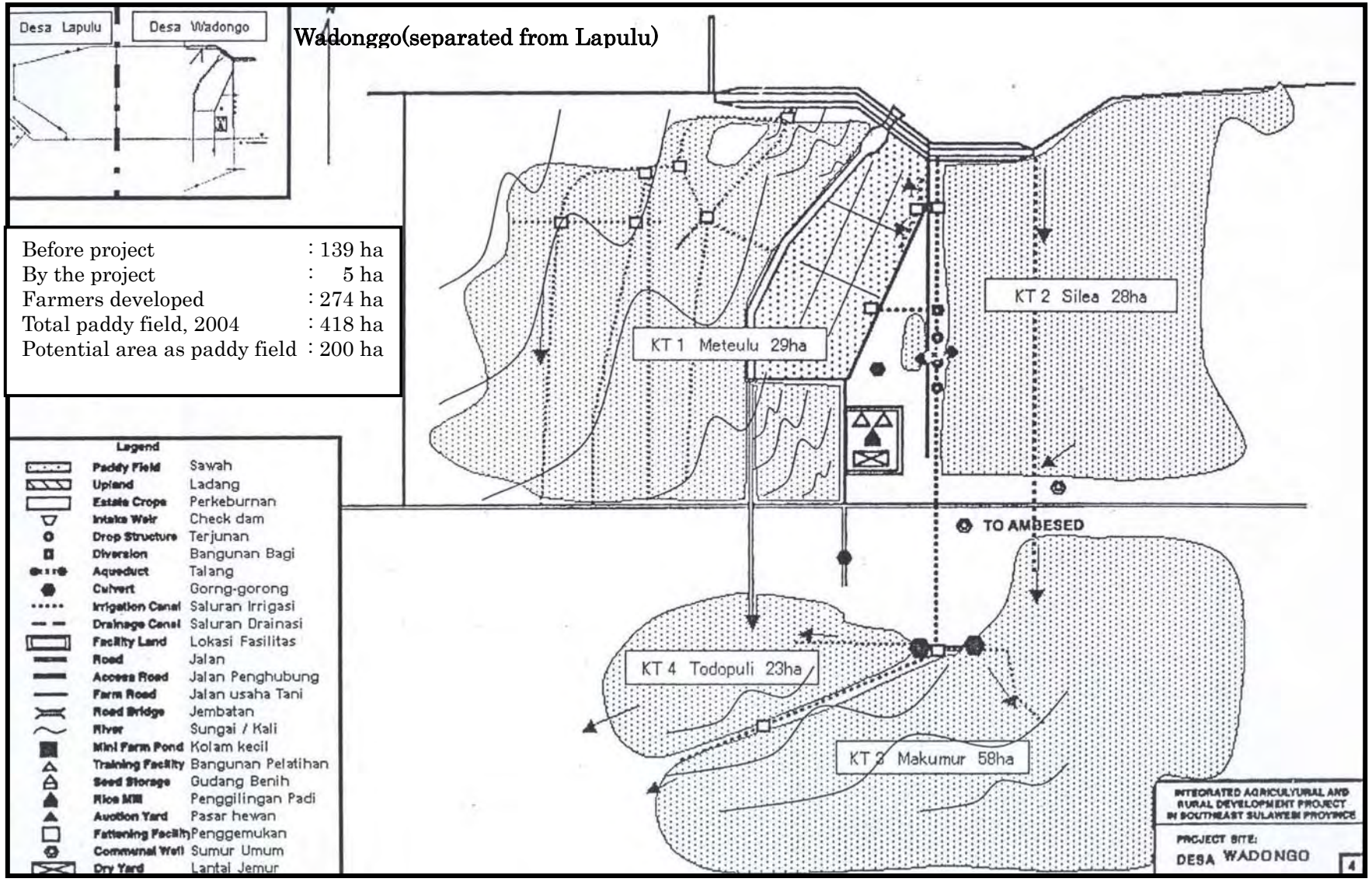
Annex 3.2 Land Reclamation Developments in Palangga Village



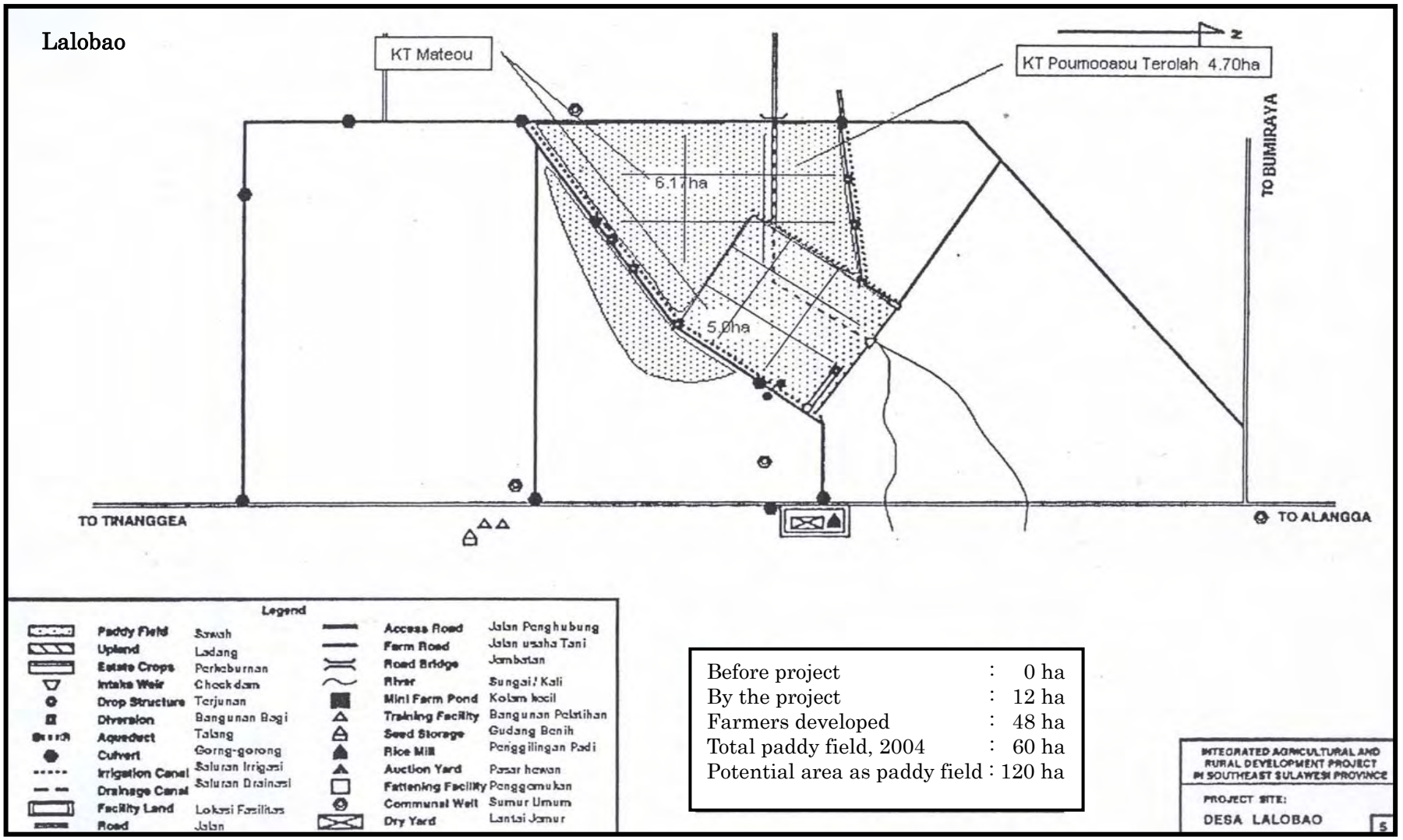
Annex 3.3 Land Reclamation Developments in Kiaea Village



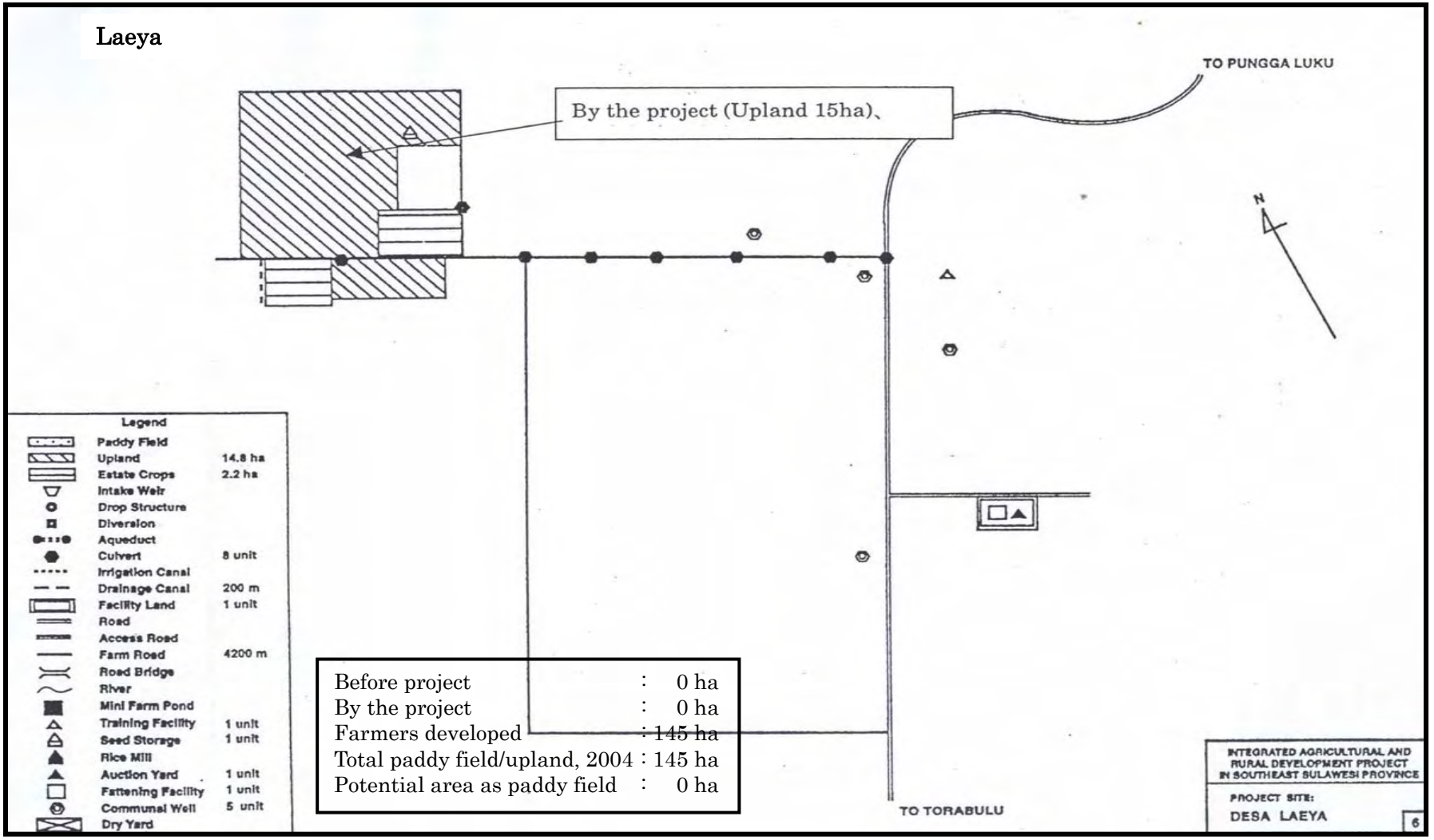
Annex 3.4 Land Reclamation Developments in Wadonggo Village



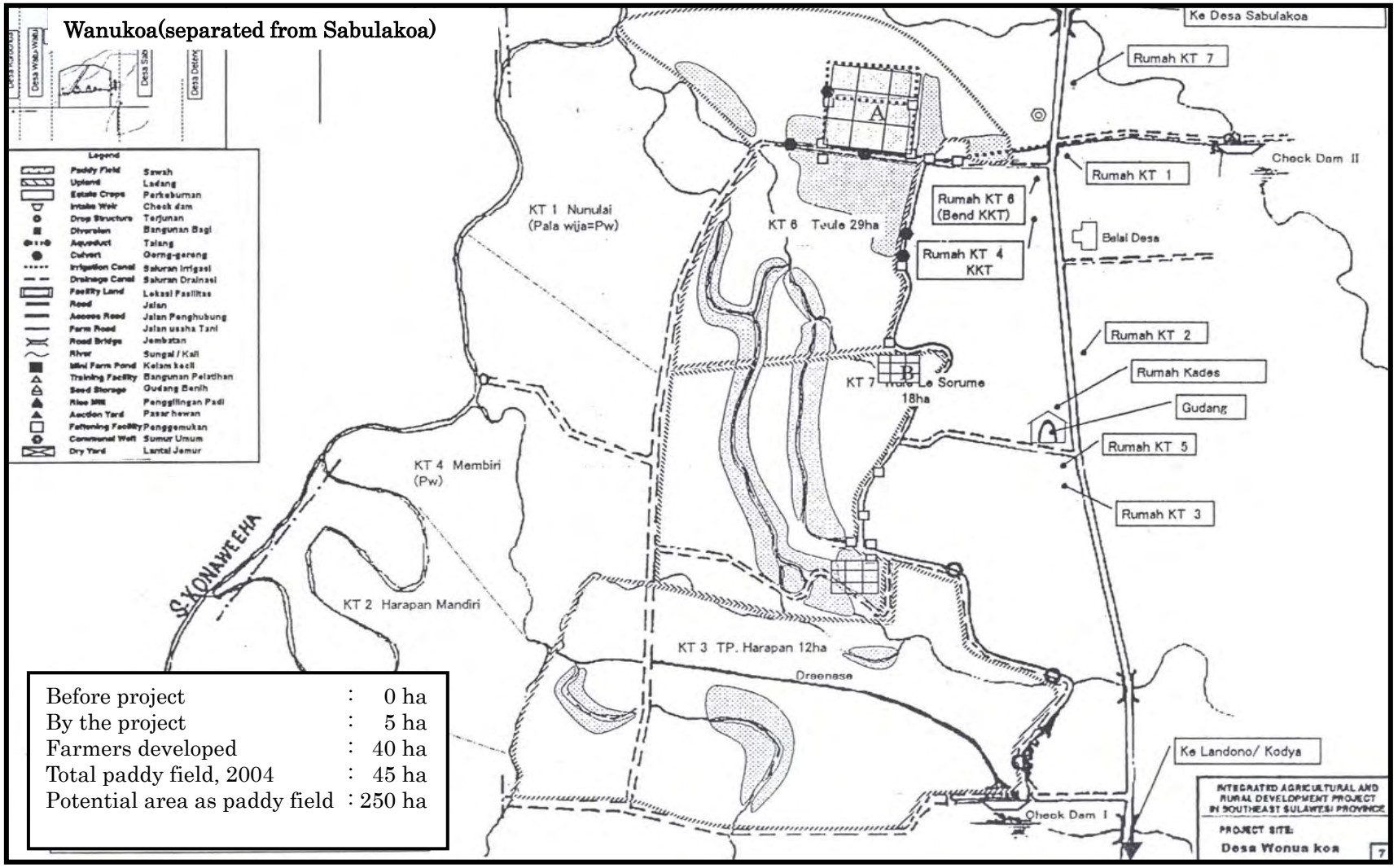
Annex 3.5 Land Reclamation Developments in Lalobao Village



Annex 3.6 Land Reclamation Developments in Laeya Village

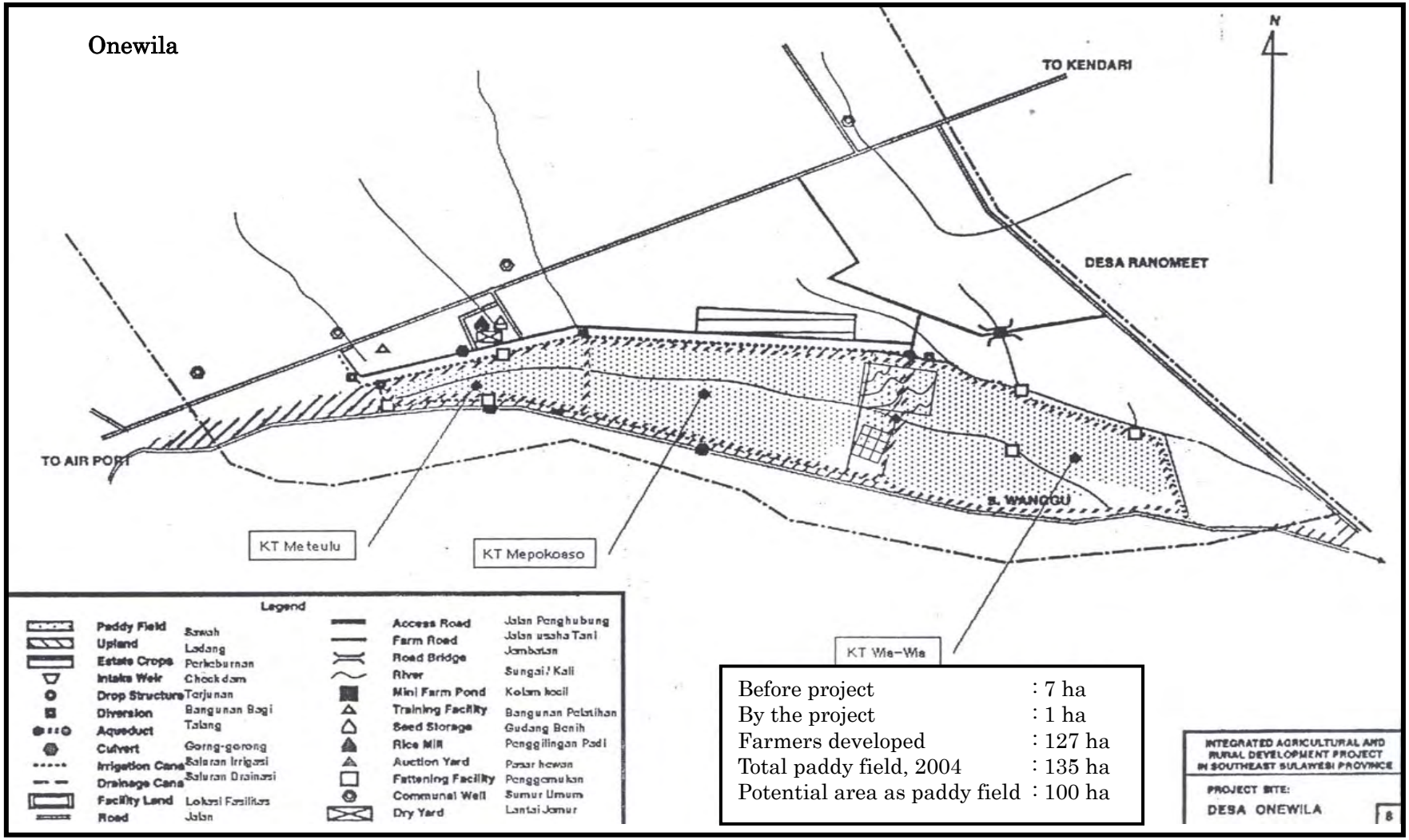


Annex 3.7 Land Reclamation Developments in Wanukoa Village



Before project	:	0 ha
By the project	:	5 ha
Farmers developed	:	40 ha
Total paddy field, 2004	:	45 ha
Potential area as paddy field	:	250 ha

Annex 3.8 Land Reclamation Developments in Onewila Village



ANNEX 4
Impacts and Overall Assessment by Farmers' Respondent

Annex 4. Impact and Overall Assessment by Farmers' Respondent

Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	Percent (%)
1. Assessment of socio-economic impact																		
(1) Increase in farmers' income																		
- Largely improved		√	√	√		√	√	√	√		√		√	√		√	11	69
- Fairly improved	√				√					√		√			√		5	31
- Slightly improved																		
- Unchanged																		
- Worsened																		
(2) Additional job opportunities																		
- Largely improved			√	√	√	√	√				√						6	38
- Fairly improved	√	√						√	√	√		√	√	√	√	√	10	62
- Slightly improved																		
- Unchanged																		
- Worsened																		
(3) Improvement of living standards (e.g. renovation of house, furniture, etc.)																		
- Largely improved	√		√	√	√	√	√		√					√			8	50
- Fairly improved		√						√		√	√	√	√		√	√	8	50
- Slightly improved																		
- Unchanged																	s	
- Worsened													s					
(4) Education for children																		
- Largely improved				√					√	√							3	19
- Fairly improved	√	√	√		√	√	√	√			√	√	√	√	√	√	13	81
- Slightly improved																		
- Unchanged																		
- Worsened																		
(5) Rural economic																		
- Largely improved		√	√	√		√	√					√			√		7	44
- Fairly improved	√				√			√	√	√	√		√	√		√	9	56
- Slightly improved																		
- Unchanged																		
- Worsened																		
2. Impact on WID (Women in Development)																		
- Increase of time for domestic affairs	√	√	√					√		√			√	√	√		8	50
- Easy access to market for daily shopping (e.g. by improvement of roads)				√	√	√	√		√		√	√				√	10	50
- Less work hours for agriculture (e.g. due to increase of farm work efficiency)																		
3. Overall Project Implementation																		
- Completely satisfied	√	√	√					√		√			√	√	√		8	50
- Fairly satisfied				√	√	√	√		√		√	√				√	10	50
- Less satisfied																		
- Dissatisfied																		
(1) If satisfied, mayor effect:																		
- Improvement of technical capacity for agricultural product	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	16	100
- Enhancement of agricultural input																		
- Enlargement of agricultural field		√		√		√	√	√		√	√		√	√			9	56
- Improvement of infrastructure such as farm road water facility	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	16	100
(2) If less satisfied, reason:																		
- In sufficient technique/ skill transfer for agricultural product																		
- In adequate agricultural equipment available																		
- Lack of agricultural inputs																		

ANNEX 5
Profile of Farmers' Respondent

Annex 5.

Profile of Farmers' Respondent

No.	Description	Village															
		Ranomeeto				Kiaea				Palangga				Wadanggo			
1	Number of Registration	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	Name	Kadina	Paidi	Poniran	Sudiro	Mardan	Arwan	Mursalin	Muklas	Ayon	Komar	Saat	Ismail	Rukyat	Sandi	Kamal	Masdar
3	Age	50	42	40	52	41	37	30	45	40	45	32	41	37	43	35	38
4	Sex	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male
5	Occupation	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers	Farmers
6	Marital Status	Married	Married	Married	Married	Married	Married	Married	Married	Married	Married	Married	Married	Married	Married	Married	Married
7	Number of Family members	7	5	6	5	4	4	3	4	4	5	4	4	4	5	4	4
8	Living in the Present Address	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born	Since born
9	Land owned (ha) - Rice field (ha) - Other crops (ha) - Residential (ha)	8.10 2.00 6.00 0.10	5.10 3.00 2.00 0.10	1.15 0.75 0.30 0.10	4.05 2.00 2.00 0.10	1.50 0.60 0.80 0.10	1.28 0.70 0.50 0.80	1.25 0.70 0.50 0.05	1.85 0.80 1.00 0.05	1.25 0.60 0.60 0.05	2.40 0.80 1.50 0.10	1.40 0.70 0.60 0.10	2.05 1.00 1.00 0.05	1.20 0.60 0.50 0.10	1.50 0.75 0.70 0.05	2.00 0.60 1.30 0.10	1.60 0.70 0.80 0.10

ANNEX 6
Activities to Support of Sustainability in JICA Project Area by Source of Fund and Fiscal Year 2002 to 2004

Annex 6.

Activities to Support of Sustainability in JICA Project Area by Source of Fund and Fiscal Year 2002 to 2004

No.	Fiscal Year	Activities	Source of Fund	Amount (Rp. 000)
1	2002	Guidance on Infrastructure and Facilities Development in JICA Area	APBN	41,450
2	2002	Polisher Procurement to Support Rice Milling Unit in Ranometto	APBN	45,000
3	2002	Irrigation Scheme Development in Kiaea	APBN	60,000
4	2002	Farm Road Rehabilitation in Kiaea	APBD	13,000
5	2002	Farm Road Establishment (1,000 m) in Ranometto	APBD	300,000 (incl. Kec. Ladongi, Kab. Kolaka)
6	2002	Beef Cattle and Broiler Development in Ranometto	APBN	60,000
7	2002	Farm Road Establishment (2,000 m) in Watumelewe and Moolo Indah	APBN	90,000
8	2002	Check Dam Building in Watumelewe	APBN	40,000
9	2003	Technical Guidance on Land Optimalization Guidance on High Level Intensification Development System (SP-INTI) of Wetland Paddy	APBN APBD	27,568 26,915
10	2003	Hand Tractor Procurement in Kiaea	APBN	20,000
11	2004	Technical Guidance and Farm Machinery Inventory in JICA Areas	APBN	12,475
12	2004	Improvement of High Level Intensification Development System (SP-INTI) of Corn in Oheiwilla, Palangga and Lapulu	APBD	33,046
13	2004	Improvement of High Level Intensification Development System (SP-INTI) of Wetland Paddy in Ranometto, Palangga, Lapulu and Oneiwilla	APBD	93,902
14	2004	Improvement of High Level Intensification Development System (SP-INTI) of Cow in Ranometto and Palangga	APBD	83,200

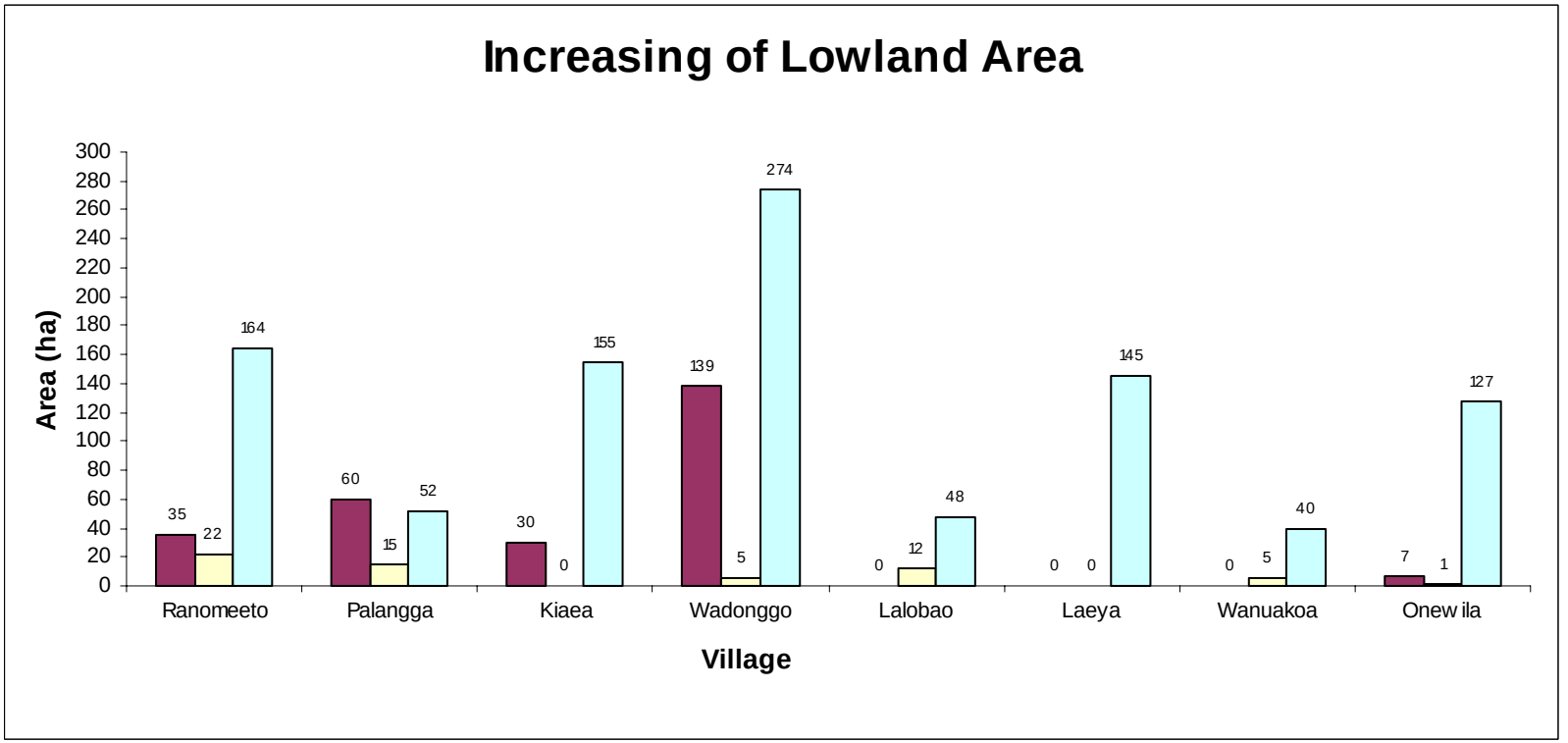
Note: APBN : National Budget
APBD : Local Budget

ANNEX 7
List of Person Interviewed

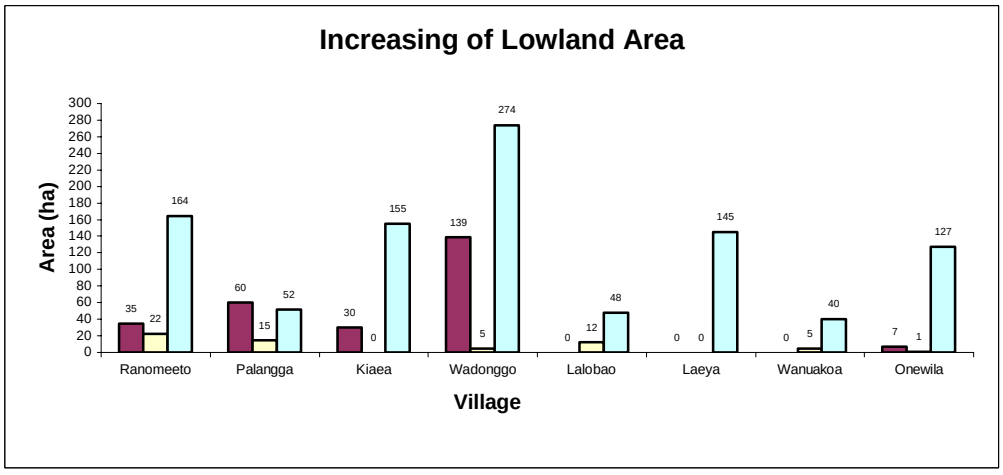
Annex 7.

List of Person Interviewed

No	Name	Position
1	Zaenal Abidin	Head of Provincial Agricultural Office, Southeast Sulawesi
2	Amri Dayan	Subject Matter Specialist Coordinator, Provincial Agricultural Office
3	Almeiri	Planning and Program Division, Provincial Agricultural Office
4	Budi	Subject Matter Specialist Livestock, Provincial Agricultural Office
5	Suwandi	Planning and Program Division, Provincial Agricultural Office
6	Masturi Jalal	Provincial Estate Crops Office
7	Ismail Lando	Secretary of Ranomeeto Sub. District
8	Sumi	Agricultural Extension Worker, Ranomeeto Village
9		Agricultural Extension Worker, Palangga Village
10	Komarudin	Agricultural Extension Worker, Lalobao Village
11		Head of Wadonggo Village
12		Head of Watumelewe Village
13	Sudiro	Head of Farmer Group Association, Ranomeeto Village
14	Arief	Head of Farmer Group Association, Laeya Village
15	Imron	Head of Farmer Group Association, Onewila Village
16	Muslim	Head of Village Unit Cooperation, Kiaea Village
17	P. Sommeng	Treasurer of Village Unit Cooperative, Kiaea Village
18		Head of Wonuakoa Village
19		Processing And Marketing Division, District Agricultural Office, Konawe Selatan
20	Sutikno	DISIMP Consultant (Ex-JICA Counterpart, during Project Implementation)

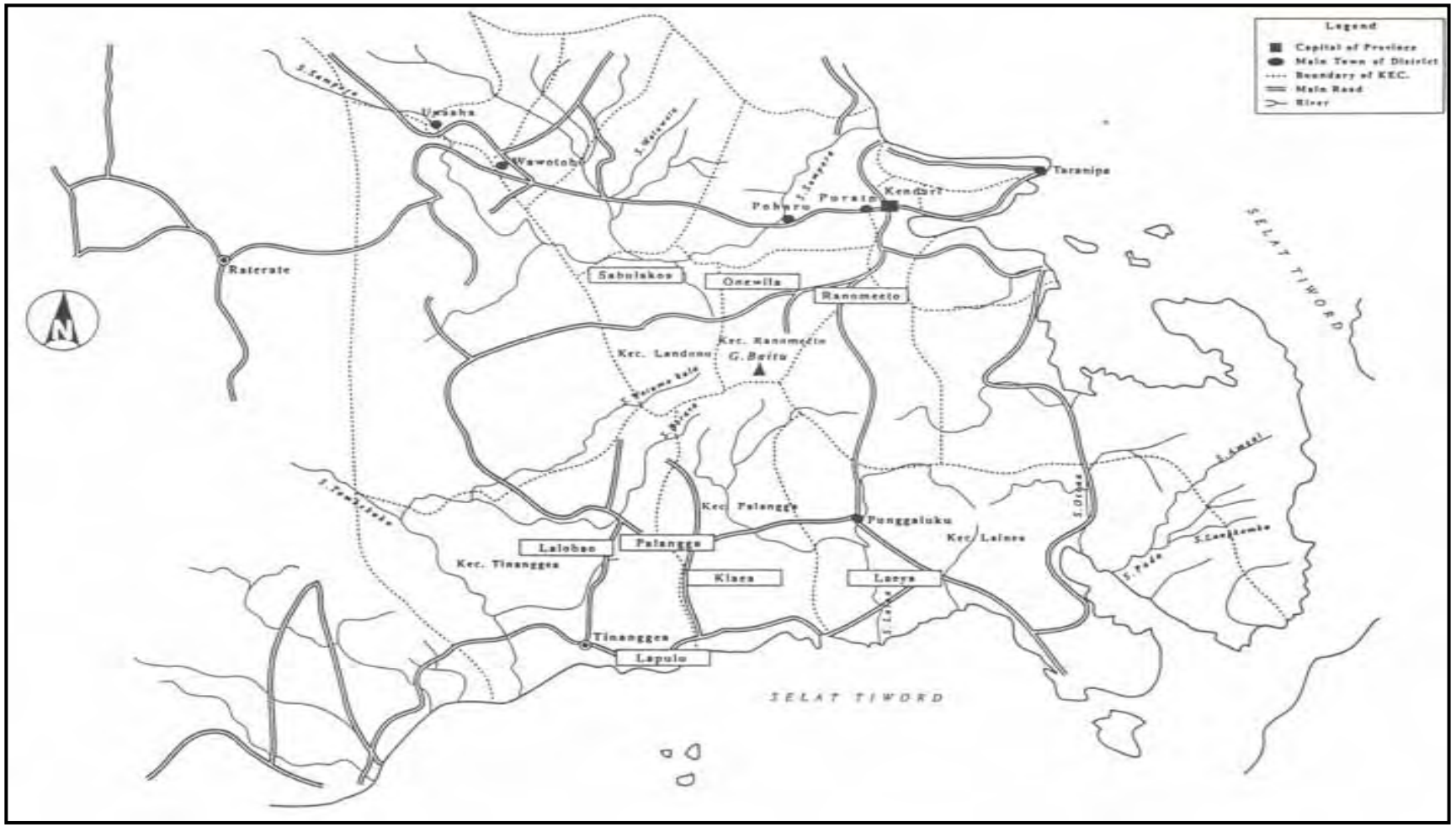

Increasing of Lowland Area
Area (ha)
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
35
22
164
60
15
52
30
0
155
139
5
274
0
12
48
0
0
145
0
5
40
7
1
127
Ranomeeto
Palangga
Kiaea
Wadonggo
Lalobao
Laeya
Wanuakoa
Onew ila
Village
Before Project
Developed by Project
Developed by Farmer

Increasing of Lowland Area Development			
Village	Before Project	By the Project	Farmers Developed
	(ha)	(ha)	(ha)
Ranomeeto	35	22	164
Palangga	60	15	52
Kiaea	30	0	155
Wadonggo	139	5	274
Lalobao	0	12	48
Laeya	0	0	145
Wanuakoa	0	5	40
Onewila	7	1	127

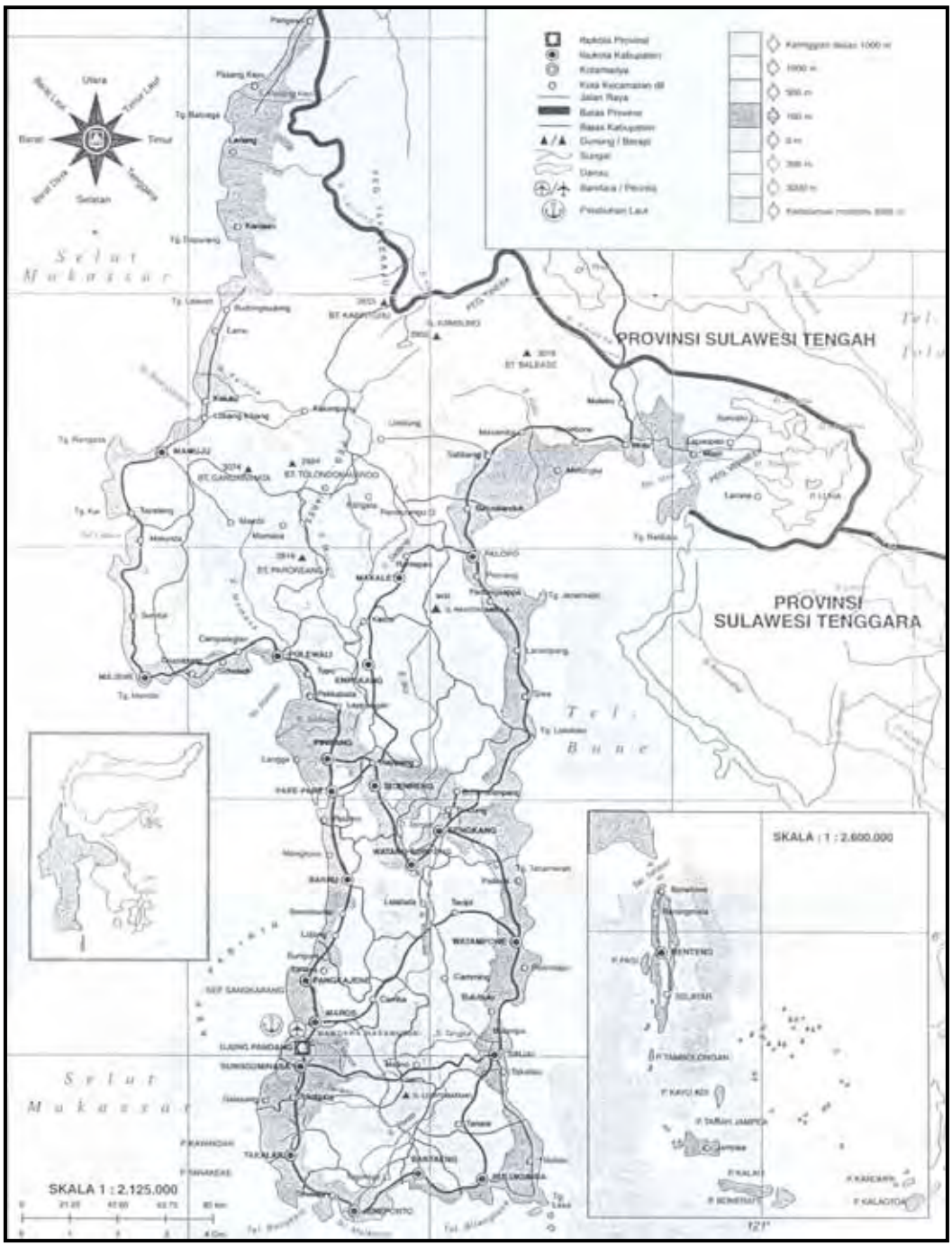


Indonesia Map

Location of the Project



South of Sulawesi Map



REFERENCES

1. _____, 1978. Final Report. Implementation of the Integrated Agricultural and Rural Development Project (IARDP, ATA – 481) Southeast Sulawesi Province. JICA and Regional Office. Ministry of Agriculture Southeast Sulawesi Province

2. _____, 1978. Laporan Survey Dampak Sosial Ekonomi Proyek Pembangunan Petanian dan Pedesaan Terpadu di Kabupaten Kendari, Sulawesi Tenggara. JICA dan Fak. Pertanian UNHALU

3. _____, 1991. Laporan Pelaksanaan Proyek Pembangunan Pertanian dan Pedesaan Terpadu. Propinsi Sulawesi Tenggara. Triwulan I 1997/1998. Kantor Wilayah Departemen Pertanian Sulawesi Tenggara dan JICA

4. _____, 1993. Minute of Meeting with JICA Mission Team

5. _____, 1995 Join Evaluation Report on the Japanese technical Cooperated for the Integrated Agricultural and Rural Development Project in Southeast Sulawesi Province

6. _____, 1997. Daftar Bahan Seminar, Februari 18 – 19, 1997. Kantor Wilayah Departemen Pertanian Propinsi Sulawesi Tenggara dan Japan International Cooperation Agency (JICA) 1997

7. _____, 1997. Report of Seminar. Integrated Agricultural and Rural Development. Regional Office. Ministry of Agriculture of Southeast Sulawesi Province and JICA

8. Nagaki Osamu, 1997. Sambutan Pembukaan dalam rangka seminar Pembangunan Pertanian dan Pedesaan Terpadu di Kendari

9. _____, 1998. Hasil Rumusan Rapat Koordinasi Proyek Pembangunan Pertanian dan Pedesaan Terpadu

10. _____, 1998. Berita Acara Serah Terima Asset JICA

11. _____, 2000 Minutes of Meeting on Aftercare Technical Cooperation for the Integrated Agricultural and Rural Development Project in Southeast Sulawesi Province

12. _____, 2001. Kondisi Sosial Ekonomi Rumah Tangga Pedesaan. Fak. Pertanian Haluoleo, Provincial Agriculture Office and JICA

13. _____, 2002. Laporan Evaluasi Pengelolaan Stock Fund Proyek Pembangunan Pertanian dan Pedesaan Terpadu (Proyek JICA) Sulawesi Tenggara

14. _____, 2002. Final Report on the Aftercare of the Integrated Agricultural and Rural Development Project in Southeast Sulawesi

15. Nagaki Osamu, 2002. Seminar aftercare Program Proyek Pembangunan Pertanian dan Pedesaan Terpadu (IARDP – ATA – 481)