

**LOCAL PARTICIPATION AND AGRICULTURAL DEVELOPMENT:
RELATIONSHIP BETWEEN THE LEVEL OF LOCAL PARTICIPATION AND THE
EFFECTIVENESS OF THE AGRICULTURAL PROJECTS**

By

Hyejin Jung

Thesis

*Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of*

MASTER OF PUBLIC POLICY

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ABSTRACT

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HYEJIN JUNG

Agricultural development of Africa and Southeast Asia has been focused by many donor countries. However, most of the development projects have not shown effectiveness. In 2005, Paris declaration claims harmonization is a key factor to the success of ODA. There has not been any empirical evidence to prove the effectiveness of the harmonization. The research is conducted to prove the relationship between development effectiveness and the local sector's participation level in agricultural developments. In this study, outcome and output of 30 different agricultural projects in Africa which took place from 1990 to 2010 were compared in terms productivity growth, local economy growth, and sustainability in relation to the local farmers union, government, and private sectors participation in order to find out empirical significance of the local participation impact

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ABBREVIATIONS

ADB	Asian Development Bank
ADF	African Development Fund
AGR	Annual Growth Rate
AfDB	African Development Bank
CGIAR	Consultative Group on International Agricultural Research
DAC	Development Assistance Committee (OECD)
EU	European Union
FFS	Farmer Field School (Extension Model)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
GDP	Gross domestic product
HIPC	Heavily Indebted Poor Country (debt initiative)
IITA	International Institute of Tropical Agriculture
JICA	Japan International Cooperation Agency
NGO	Non-governmental organization
OAU	Organization of African Unity
ODA	Official development assistance
OECD	Organization for Economic Cooperation and Development
PPAR	Project Performance Assessment Report
PRSC	Poverty Reduction Support Credit
PRSP	Poverty Reduction Strategy Paper
SADC	Southern African Development Community
SAP	Structural adjustment program
SPFS	Special Program of Food Security
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WTO	World Trade Organization

CHAPTER I. INTRODUCTION

Agriculture is the industry most population depend their lives on in developing countries. Before an industrial transformation takes place as one country's economy develops, members of rural communities of the country usually consists over 80% of total population for the country yet contributing less than 20% of the total GDP. Poverty alleviation and income growth based on agricultural development naturally becomes the first priority when it comes to developing the most underdeveloped countries in Sub-Saharan Africa and Southeast Asia. Korean New Village Movement¹ which became a case study of many developing countries especially in Southeast Asia is a famous example of successful local participation on a country's development.

Agricultural development in Africa and Southeast Asia has been focused by many donors but evaluations of the projects have shown not so successful implementations. Recent studies (challenges for African agriculture, 2011) reveal many obstacles on getting a success on an agricultural project in Africa. Among other obstacles, lack of focus on local manpower and community seems to be the most serious factor. The future of African farms depends on the changes that African farmers can achieve, which makes establishing favorable conditions particularly important: secure land tenure, access to solvent markets, opportunities for developing and sharing innovations, and appropriate financing. All those mentioned conditions cannot be achieved by outsiders but more from the inside community. Without participation, there are obviously no partnerships, no developments, and no program (Aref et al., 2010). Therefore, a lack of participation in the decision to implement an agricultural policy can lead to failure in the agricultural development.

¹The Korean government launched the movement in 1970 and vigorously implemented it during 10 years. It was a nation-wide social movement aimed at modernizing rural villages in Korea by introducing changes in the rural community

The word “participation” has been widely used and promoted in development programs. Participation could be defined as a direct involvement of recipient groups which were generally marginalized in a development process. Participation aims to build people's abilities to have access to and control of resources, benefits and opportunities towards independence and improvement in quality of own life. Participation in an agricultural development program is also the process of communication among men, women farmers and extension workers during which the farmers take the leading role to analyze their situation, to plan, implement and evaluate development activities. Farmers’ participation is considered necessary to get community support for agricultural development projects (Cole, 2007). Farmers’ participation refers to peoples’ engagement in activities within the rural. It plays an essential and long-standing role in promoting quality of life (Putnam, 2000).

The World Bank recognized the lack of participation as a reason for failure of many development attempts in developing countries (World Bank, 1993). Currently the bank tries to implement Community-Driven Development (CDD)² as a new approach to involve the recipient community groups as active initiators and decision makers of a project. Without community participation, there is obviously no partnership, no development and no program. Some scholars provided a typology of participation (Leksakundilok, 2006), but they do not directly deal with agricultural development. Therefore, this study attempts to establish a typology of farmers’ participation in agricultural development based on those models.

²Community-Driven Development (CDD) is an approach that gives control of development decisions and resources to community groups.

1. Object of study

Community participation on development projects has been focused by policy makers all over the world but the actual effectiveness of the participation has not been analyzed. Especially there is no quantitative analysis showing the actual impact of local communities' participation in any stage of the development project. This brought me a question what the actual effectiveness of the local participation in current agricultural projects in Africa and Southeast Asia is and which level of participation is the most effective to get the positive outcome of the project.

One challenge is that the impact of an agricultural project is often found long after an implementation of a project. Annual report or evaluation can only reveal immediate change or vision of a project instead of measuring fundamental value of the project. From the study, I try to find out an actual and sustainable impact of an agricultural project to the community by analyzing economic status of the community after the implementation of a project. In addition, two case studies are examined one with a high local participation level all throughout the project, and another contrasting case with a low local participation level all throughout the project, in order to emphasize the importance of the local participation.

2. Topic

Topic of the study is 'Effectiveness of local Communities participation in agricultural development projects of Africa and Southeast Asia'

3. Research Questions

Two research questions have been developed. One is to find out if there is any relationship between local participation and development effectiveness, and the other is to find out which stage of participation plays the most important role.

- Is there any positive relationship between local community participation level and outcome of agricultural development projects?
- In which stage, participation level plays the most important role in outcomes of agricultural development projects?

CHAPTER II: LITERATURE REVIEW

1. Theoretical Foundation

The study is to prove the impact of local participation level in each stage of the development project and outcome change related to the level of participation. There have not been many studies related to the effectiveness of the participation. Especially participation level models or empirical analysis of the participation effectiveness has never been theoretically proven. Most studies use qualitative analysis of survey results or focus group interviews to explain effectiveness of local participation. However, I could find a long history of trying to categorizing the level of local participation. Arnstein tried to categorize the citizen's participation level in 6 different steps in the paper published in the Journal of the American Planning Association in July 1969. Farshid Aref later used the categorization method on the article analyzing participation level in agricultural development in Fars Province, Iran.

Farmers' participation in agricultural development: the case of Fars province, Iran, Farshid Aref, Feb2011

This study examines the issue of farmers' participation in the context of agricultural development. Data for this article were obtained through focus group discussion (FGD) from rural farmers in 9 villages in Fars Province, Iran. The findings showed that FGD discussion had more emphasis on involving farmers in implementing programs than on providing for their participation in planning and evaluating the processes or outcomes of agricultural

programs. It is expected that the findings of this study could be utilized by the agriculture developers for reassessments of agricultural industry programs in rural communities.

A Ladder of citizen participation, Journal of the American Planning Association, Arnstein, Sherry R., Jul. 1969

Arnstein (1969) looked at the various participation programs operated during the 1960s and found that most of them were insufficient to actually increase the capability of average citizens to change community plans and programs. In Arnstein's model, programmatic intent could range from low "manipulation" of participants, to "high", full control of decision-making mechanisms by community residents and service consumers (Hardina, 2004). Table 1 represents six broad categories or levels of participation, which had been formulated. The 6 categories could be grouped into 3 upper groups. The top of the ladder represents genuine participation.

2. Sample Analysis

More detailed analysis of targeted group comparing different communities could be found on following paper which analyzes community effort in rural village development in a specific region in Korea. Method of the analysis is also survey questions. For this relatively current study, a short period and a targeted region are used so it is not right to generalize the findings. However, I could use the findings to support the result of my analysis.

A Study on the Characteristics of Residents' Participation for the Comprehensive Rural Village Development Project-With Reference to the Gyeongbuk Rural Village Development Projects, Joo-youl Hur, 2009.

The purpose of this study is to analyze the characteristics of residents' participation for the comprehensive rural village development project by progress phase. The progress has been divided into 4 phases; preparation, planning, propulsion systems set up and valuation. 169 promotion committee and residents in the 29 rural villages in Gyeongbuk province were selected for the survey for 16 days from April 15 to 30, 2009.

First, in the preparation phase, the projects were initiated by local communities mostly by the proposals from the village leaders or local governments, which then formed a promotion committee. Later on, the ordinary residents were aware of the project through the promotion committee and there was low level participation from the community members in joining education prepared for them. Second, in planning phase, the ordinary residents showed lower participation level compared with the promotion committee in vision sharing, awareness level of project contents, participation level in selecting project by sector, and in the role between the objects of planning set up. The ordinary residents showed lower participation than committee members in promotion system establishment phase as well. Though the ordinary resident showed much lower awareness and participation in development, the residents' satisfaction about participating in comprehensive rural village development project appeared high in general. However, the satisfaction levels of the general residents in the planning phase as well as performances of the promotion committee activities in system set up phase appeared low.

CHAPTER III: EMPIRICAL ANALYSIS

1. Methodology

Six hypotheses are developed from the two research questions mentioned in Chapter I-3.

By proving below listed hypothesis, the study tries to prove that local communities' participation play an important role in agricultural development both in productivity and income growth

1. When local community is more involved in **design and execution** of a project, an agricultural project results in more positive **productivity growth**
2. When local community is more involved in **Monitoring and evaluation** of a project, an agricultural project results in more positive **productivity growth**
3. When local community is more involved in **design and execution** of a project, an agricultural project results in more positive **income growth**
4. When local community is more involved in **Monitoring and evaluation** of a project, an agricultural project results in more positive **income growth**
5. With a bigger **financial contribution** from local community, an agricultural project results in more positive **income growth**

Annual reports of major development organizations and local development agencies for past 10 years, mainly between 1998 and 2008 are reviewed in order to figure out participation level of current agricultural projects.

A combination of the projects evaluation data from

Using each organization’s project planning data and evaluation reports during and upon completion of the projects, data on the participation level of each project is measured and quantified in 1 to 5 scales as suggested in the table below.

Table 1. Participation level of a project

Rating	Participation level
5	Empowerment
4	Partnership
3	Interaction
2	Consultation
1	Informing

Source: A ladder of citizen participation, Arnstein, Sherry R.

Output productivity is determined by the **productivity and income growth** of the participating farm households upon the completion of each project compared with the values before the project took place. The **annual growth rate** is calculated. Correlation matrix and Regression analysis are used in order to find out relationships between the level of participation and outcome of the projects. Data Analysis is done by SPSS software and Microsoft Excel with Megastatplug-in tool. In order to conduct the quantitative research, various reports of current agricultural projects are reviewed and analyzed. Main data source of the evaluation was from online database of the project implementation and evaluation authorities both locally and internationally. Over 100 projects are reviewed and 30 sample projects are selected in order to conduct the economic analysis.

The projects selected have good documentations to review the process and outcome of the projects. In order to compare the projects with similar conditions, selected projects have the duration of 3 to 9 years and competed between 2000 and 2010. However, when I

first ran the analysis, some errors showed up because of missing or invalid data in a number of projects. So I selected projects once again with all the evaluation values available. Among the 30 selected projects, 9 had more than one missing data on above categories so the actual analysis was conducted with the data of 21 realized projects

1-1. Project Categories

The projects are categorized in five terms, implementing agency, agricultural category, duration, participation level, and outcomes. Then again the participation level is measured in four different categories, financial contribution, planning, implementing, monitoring and evaluation and the outcomes are measured in two different ways, productivity growth and income growth.

The main implementing agencies of the selected projects are bilateral and multilateral development organizations or locally initiated development agencies. Though there are growing number of projects initiated and implemented by local agencies, documentation of such projects are not well kept and posted electronically and available as online databases, so those projects were difficult to get sufficient data. Therefore, majority of the projects analyzed in the study were implemented by internationally renowned development organizations such as GIZ (the German Society for International Cooperation), JICA (Japan International Cooperation Agency), AfDB (African Development Bank), ADB(Asian Development Bank), ADF(Asian Development Fund), World bank, IITA (International Institute of Tropical Agriculture), IFAD (International Fund for Agricultural Development), and Farm Africa. I tried to find out by which implementation agency, outcome of the project is more successful and the local participation level is higher.

There are various different agricultural categories among the projects analyzed. Majority of the projects are for improving productivity of food crops such as rice, potatoes, and corns in order to improve the livelihood of the residents. Another category is for improving productivity or adopting new plantation of the crops which could bring revenue to the residents, called cash crops such as peanuts, cotton, and sugarcane. Also, many projects are not directly related to the crop production but about improving infrastructure and marketing related to the agriculture in order to help improving the productivity and marketability of the agricultural products. Those projects are in irrigation, food processing, and packaging. Some projects are not related to the crop production, but in other agricultural products such as livestock and fisheries. In order to simplify, I made three different groups of the agriculture categories: Crop 1 (food and cash crop), Crop 2 (Crop+ Market and Infra Dev.), and Others (Livestock, fisheries, and others). Duration of the implementation is also important when evaluating the project. In the study, I only counted the duration from the beginning of the first implementation of the actual project, excluding the preparation period to the last activity of the project.

1-2. Participation categories

Participation level is categorized in four different terms; financial contribution, local participation level in planning, implementation and monitoring and evaluation stages. In order to measure financial contribution of the local community in an agricultural project, sum of the shares of local executing agency, bank, enterprise and beneficiaries' contributions combined over the total budget of the project is calculated. Since this category is easily quantifiable with a reliable data sources, no further analysis was necessary in order to rate the differences. However other participation categories such as planning, implementation, monitoring and evaluation are difficult to quantify, so scaled rating based on the model

suggested in A Ladder of citizen participation, (Arnstein, Sherry R., 1969) was used in order to quantify the different levels of participation. Annual report and evaluation data were used as bases of the rating each participation level.

1-3. Outcome categories

There are various ways of measuring outcomes of a development project. Most of the previous studies measured the outcomes in qualitative terms by sending a person or a team of evaluation committee to the project site during and upon completion of a project. Such type of evaluation shows descriptive analysis of local conditions and surveys of the people involved in the project. The qualitative method has its own meaning in identifying conditions and satisfaction level perceived by each party. However, it is difficult to provide standard and objective result analysis. Therefore, for this study, I tried to measure the outcome in economic benefit to the beneficiary local community by measuring productivity and income growth of the agricultural community which the project is implemented.

Most of the projects have simple comparison result of the productivity growth of a sample area before and after the development project. Usually such data has different duration of the evaluation period in order to witness the result of the project in pilot level. Therefore, I calculated annual growth rate of the production and income in order to compare outcome of each project with the same standard. The annual growth rate of the productivity is calculated using the differences in production volume while the annual growth rate of the income is calculated using the differences in revenue between before and after the project

implementation, divided by the duration of the project using the following well known formula for Compound Annual Growth Rate(CAGR)³ shown in Figure 1.

Figure 1. Formula for Compound Annual Growth Rate

$$\text{CAGR}(t_0, t_n) = (V(t_n)/V(t_0))^{\frac{1}{t_n-t_0}} - 1$$

$V(t_0)$: start value,

$V(t_n)$: finish value,

$t_n - t_0$: Number of years.

Source: Wikipedia- definition of CAGR (http://en.wikipedia.org/wiki/Compound_annual_growth_rate), 2012

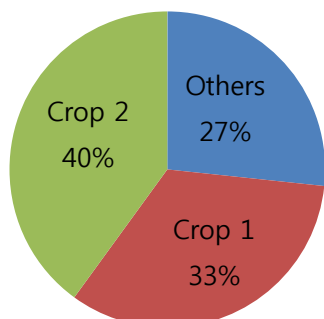
2. Description of the data

As described in the chapter III -1, agricultural categories, implementing agencies, participation levels could constitute the input variables of the project descriptions. In terms of the agricultural categories, among the 30 selected projects, 40 % of the projects are in combination of crop related technologies and financial assistance plus infrastructure and market development related to the crops. 33% of the projects are directly related to the crop production improvements while the remaining 27% of the projects are related to other types of agriculture than crops such as fisheries and livestock. Regional variations of the selected projects are 60% from Southeast Asia and the remaining 40 % from Africa, mainly Sub-Saharan part of Africa.

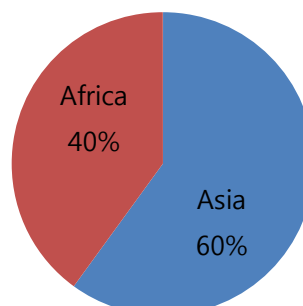
³Compounded Annual Growth rate (CAGR) is a business and investing specific term for the smoothed annualized gain of an investment over a given time period. CAGR is not an accounting term, but remains widely used, particularly in growth industries or to compare the growth rates of two investments because CAGR dampens the effect of volatility of periodic returns that can render arithmetic means irrelevant.

Figure 2. Project Categories

Agricultural Category



Regional Variation



Average duration of the projects lasted for 5.8 years from the first implementation of the project to the last year of the project activity. The average local share of the financial contribution is 17.4% of the total budget of the project. Projects in Africa have average of 22.24% financial contributions from local parties over the total budget which is significantly higher than that of the projects in Africa (14.7%). Among the different stages of the project activities, the most local participation was found in implementation stage while the least participation was shown during the monitoring and evaluation stage. For outcome variables, average productivity growth of the projects is 19.9% per year and the average local income growth is 15.9% per year.

Table 2. Average description of the projects

Input		Participation				Outcome	
Category	Duration	Financial contribution	Planning	Implementation	Monitoring and Evaluation	Productivity	Income
Average	5.8	17.4%	3.8	4.4	3.3	19.9%	15.9%

3. Case Studies

In order to analyze the trend of local participation, over 100 project documents as well as internal and external evaluation data of agricultural projects completed within 10 years from now (between 2000 to 2010) in Southeast Asia and Africa have been reviewed in the course of study. By reviewing the projects' documents, I could find that in most cases, higher local participation in each stage results in more successful outcome of the projects while lack of local participation and follow-up from local parties results in failure in the outcome of the projects. Especially, following selected projects show contrasting outcomes depending on the participation level. One group shows a good practice of local participation which in turn resulting in the impressive outcome while the other group shows the opposite result with low local participation.

3.1. Good practice

3.1.1. Emergency Agricultural Production Recovery Project - PRAUPA

First, I would like to present the best example of a good practice of the local participation.

Figure 3 shows the areas of the project implementation.

Table 5 shows the basic description of the project. The Emergency Agricultural Production Project (PRAUPA) was selected to rebuild socio-economic structure of the mostly destroyed nation during the 1994 genocide. After the tragic event in 1994; Rwanda lost the agricultural productivity by 75%. So the country was in a serious need of recovery. The recovery was done by recovering basic infrastructure needed for agriculture such as irrigation system and land reclamation, training and R&D for productive farming technologies, and spreading of new breeds.

The project has been identified by the Ministry of Agriculture and Animal Resources Rwanda back in 1996 and suggested to African Development Bank for support. Actual implementation of the project lasted for 5 years from 2000 to 2005. Local initiative in combination with a support from a strong multilateral organization made the project show a great harmonization from the planning stage of the project. Local parties participated not only in the actual implementation but also in the monitoring and evaluation of the project.

In terms of the financial contribution, Government of Rwanda was in a difficult situation whereas most of the financial source should come from outside. As shown in the Table. 6, due to Africa Development Bank’s generous financial support, almost 90% of the financial sources are from AfDB and the local government’s financial contribution is lower than the sample average (10.15% compared to the sample average of 17.4%).

Due to the devastating situation of the citizens, local community virtually had no financial source to contribute so the community participation in financial contribution is none.

Table 4. Comparative Table of Project Costs by Source of Finance

(In UA Million)

SOURCES OF FINANCE	Estimated Costs at Appraisal			Costs at Completion			Difference
	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total	
A. ADB	2.50	1.70	4.20	2.50	1.04	3.54	- 0.66
B. Government	-	0.70	0.70	-	0.40	0.40	- 0.30
TOTAL	2.50	2.40	4.90	2.50	1.44	3.94	- 0.96
% of Total Cost	51.0	49.0	100	63.5	36.5	100	-

Source: PROJECT COMPLETION REPORT, AfDB, 2007

However, local participation in other categories than financial contribution such as planning, implementation, and monitoring and evaluation were in highest possible level (Empowerment level 5). According to the project completion report, the project was

successful because the executing agency adapted the local condition when designing the project and there was a high involvement of the stakeholders at all the different stages of the project cycle. The Project demonstrated a high level of flexibility, which results in the outstanding performances.

As shown in the Table 7, the project achieved and even exceeded its objectives thanks to the high crop yields (6 to 7 t/ha per season, compared to the 4.5 t/estimated at project appraisal) coupled with the increase in the area developed (1,750 compared to the estimated 1,275 ha). In result of the good performances, the area enjoyed a steady production of 21,400 tons of paddy rice yearly, accounting for approximately 42% of current national production. The project out performed with additional production about 16,680 tons yearly, which results in 325% of the targeted objective at appraisal.

Table 5: Input and outcome of the PRAUPA project

Input					Participation				Outcome	
Implementing Agency	Category	Region	Country	Period	Financial Contribution	Planning	Implementation	Monitoring Evaluation	Productivity	Income
AFDB-MINAGRI	Others	Africa	Rwanda	1996 - 2003	10.15%	5	5	5	32.00%	34.00%

This project case clearly shows local communities' active initiative and participation throughout every stage of the project resulting in the successful outcome of an agricultural project.

3.1.2. Northern Community Managed Irrigation

Another good example of local participation is shown in the Northern Community Managed Irrigation sector project in Laos. Figure 4 shows the areas of project implementation. Table 8 shows the basic description of the project.

Figure 4: Project Area Map



Source: PROJECT COMPLETION REPORT, ADB, 2011

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Table 6: Project Basic Data

1. Country: Lao People's Democratic Republic
2. Project: Northern Community-Managed Irrigation Sector Project.
3. Loan Number: 2086-LAO (SF)
4. Borrower: Government of the Lao People's Democratic Republic
5. Executing Agency: Ministry of Agriculture and Forestry

Source: PROJECT COMPLETION REPORT, ADB, 2011

The goal of the Northern Community-Managed Irrigation Sector Project of the Asian Development Bank (ADB) was to reduce rural poverty and improve food security in five Northern provinces of the Lao People's Democratic Republic (Lao PDR). The project's immediate purpose was to increase agricultural production and income-earning opportunities through the development of small-scale, community-managed irrigation (CMI) with strong community ownership.

In terms of the financial contribution, government of Laos as well as the local farmers contributed a good amount of the shares in the project. As shown in the Table. 7, Asia Development Bank financed the majority of the cost totaling 10.342 out of 12.595 million USD, which is around 82% of the total cost. The government of Laos and the farmers union financed the other 18% which is slightly above the same as the sample average of 17.4%. In addition, local farmers contributed with free labor after the technological assistance from ADB is given to the local trainees who could be calculated back to the labor cost.

However, in this study, we only use the actual financial contribution to the calculation and the labor contribution is counted as the high participation level in the planning and implementation stages.

Table 7. Comparative Table of Project Costs by Source of Finance

(In UA Million)

Cost	Appraisal Estimate	Actual
Implementation Costs		
ADB Financed	9.669	10.016
Borrower Financed	1.901	1.329
Beneficiary Financed	1.009	0.924
Total	12.579	12.269
Interest during implementation		
ADB Financed	0.331	0.326
Borrower Financed	0	0
Total	12.910	12.595

Source: PROJECT COMPLETION REPORT, ADB, 2011

According to the project completion report, the local community participation in all levels achieved all performance targets. From the planning stage, Community activity proposals were prepared in all participating villages, and water user associations were formed, trained, and legally registered. Local farmers actively participated in the implementation of the project by providing labors not only in the crop production itself but also for the project management in sub groups. In result, the two intended outcomes of the project—higher rice yields and expanded irrigation—were achieved. The wet-season rice yield increased from 2.0 tons/ha to 3.7 tons/ha, while the dry-season yield was increased from 3.2 tons/ha to 3.6 tons/ha. The second intended outcome was an increase in irrigated areas to about 1,900 ha for wet-season cultivation and about 200 ha in the dry season.¹⁵ In the 2009 wet season, the total irrigated area of all 33 subprojects was 1,963 ha, including 1,889 ha of rice and 74 ha of cash crops and fishponds. In the 2008/09 dry season, a total of 425 ha were planted, including 291 ha of rice. In the 2009/10 dry season, the total planted area was 708 ha, well above the target.

As shown in the Table 8, the project resulted in an impressive outcome with both productivity and income over 30% annual growth. Sustainability of the project is also regularly monitored by ADB and found the local community associations keep training, spreading, and managing the project locally.

Table 8: Input and outcome of the Northern Community project

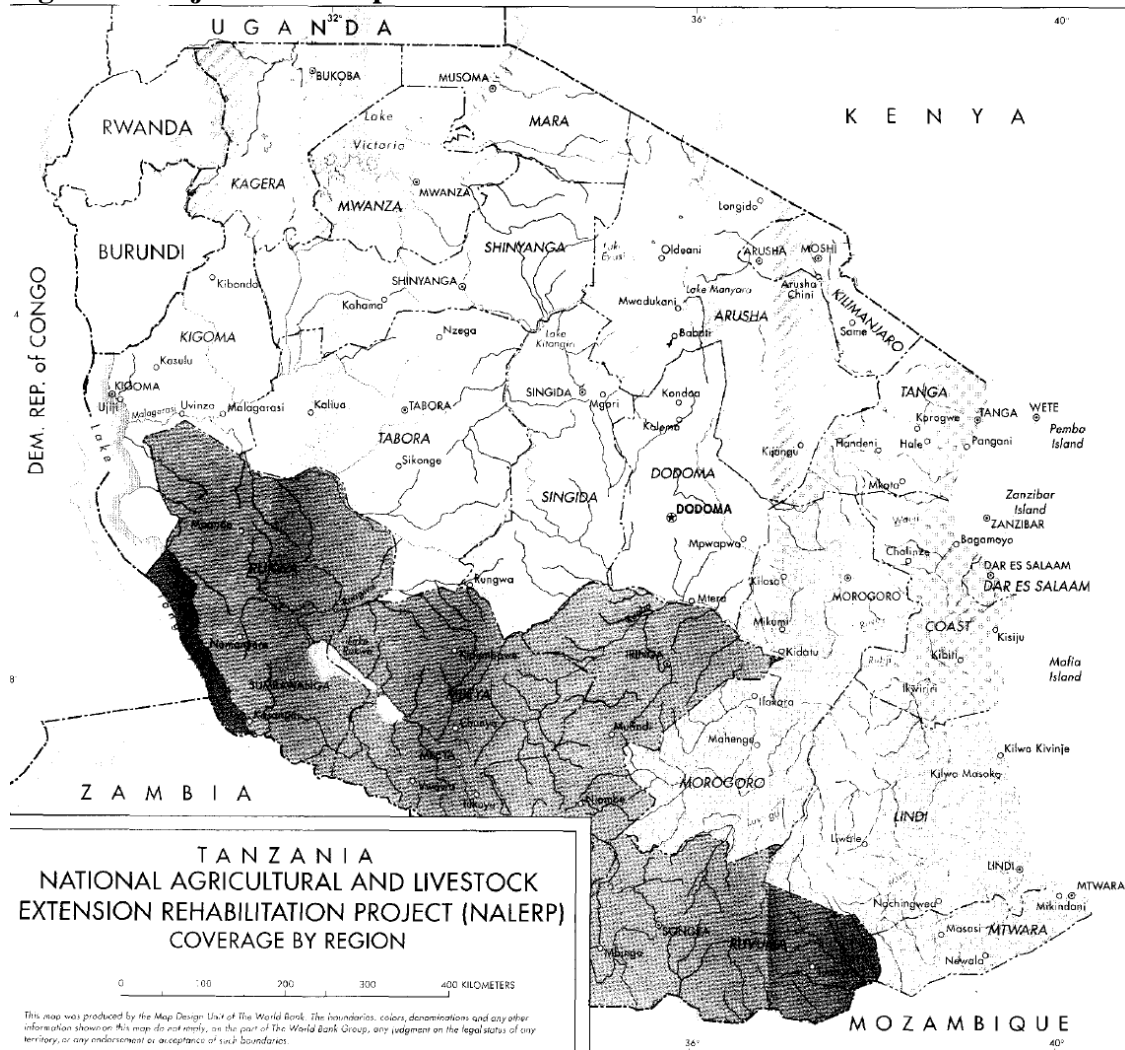
Input					Participation				Outcome	
Implementing Agency	Category	Region	Country	Period	Financial Contribution	Planning	Implementation	Monitoring Evaluation	Productivity	Income
ADB	Irrigation	Asia	Laos	1989-1999	18%	5	5	4	36.90%	30.10%

3.2. Bad Practice

3.2.1. National Agricultural and Livestock Extension Rehabilitation Project (NALERP)

National Agricultural and Livestock Extension Rehabilitation Project in Tanzania is quite similar to the previously analysed project in Rwanda. In 1988, African Development Fund identified this financing project to rehabilitate the agricultural and Livestock industry in Tanzania.

Figure 5: Project Area Map



Source: Implementation Completion Report, World Bank, 1998

The objective of the long term program was to enable the Government of Tanzania to educate the farming community to enhance agricultural production, productivity and rural incomes. As the first phase of the rehabilitation project, the project is a part of a long-term process to establish an efficient, cost-effective and sustainable extension service.

The project originally aimed to achieve a gradual but steady and well-planned merging of crop and livestock extension services into a multi disciplinary system, the strengthening of extension management, organization, coordination and supervision of

activities, and the upgrading and/or provision of necessary human resources, physical infrastructure and logistic support. The cost of the project was estimated at US\$30.4 million, majority financed by an IDA Credit (US\$18.4 million), and a loan from the African Development Fund (US\$8.8). The Government of Tanzania (US\$3.2 million) planned to contribute about 10% of project. However, as shown in the table below, the actual Government contribution to financing the project amounted to US\$855,000, or approximately 3% of total project costs.

Table 9. Comparative Table of Project Costs by Source of Finance

Source	Appraisal estimate (US\$M)			Actual/latest estimate (US\$M)		
	Local Costs	Foreign Costs	Total	Local costs <u>a/</u>	Foreign costs <u>a/</u>	Total
IDA	4.4	14.0	18.4	-	-	19.3 <u>b</u>
African Development Fund	2.0	6.8	8.8	-	-	8.5
Domestic contribution	3.2	-	3.2	-	-	0.8
TOTAL	9.6	20.8	30.4	-	-	28.6

Source: Implementation Completion Report, World Bank, 1998

The project was initiated by the government of Tanzania and coordinated by various donor associations such as AfDB, World Bank, and IFAD. The donors tried to set the general objectives and management of the program but lack of continuity and sustainability in the local government as well as among the donors made the objective difficult to be realized. Local participation was assumed from the planning stage. However, the initial assumption that village labor would be volunteered to assist in the construction of houses and infrastructure never eventuated. In the beginning, the project seemed to achieve its development objective of rehabilitating the extension services provided to farmers and livestock keepers in a satisfactory level. First three years of the project implementation, the objectives were met. However, the local Monitoring and Evaluation committees did not

complete the trainings necessary to get the targeted certifications resulting in the lack of internal evaluation abilities. Therefore, after the mid-term review on 1992, the field workers and local monitoring agency did not perform, causing serious delay in project implementation and negative outcomes. Therefore, upon completion of the project, both productivity and income showed negative growth.

Table 10: Input and outcome of the NALERP project

Input					Participation				Outcome	
Implementing Agency	Category	Region	Country	Period	Financial Contribution	Planning	Implementation	Monitoring Evaluation	Productivity	Income
ADF	Livestock	Africa	Tanzania	1988-1997	4.60%	2	3	2	minus	Minimum

3.2.2. Sidamo-GamoGofa Peasant Agriculture Development Project

The project was identified by the Government of Ethiopia (GOE) and FAO Investment Centre (FAO/IC) prepared it early 1985. The project objective was to increase crop and livestock production in Sidamo and Gamo Gofa areas of Ethiopia by 1989/90 by enhancing the capacity of peasant farmer's through improved extension and research services, improved access to credit services and better infrastructure. The local Government's financial contribution was planned to be 14.7% but the actual contribution was only UA 0.14 million instead of UA 3.32 million resulting in only 2.5% of local financial contribution which resulted lack of ownership from local parties.

Due to the lack of local ownership, project implementation was also significantly delayed. Reporting on the progress of the project by the local government to AfDB was poor throughout the implementation period due to the dissolution of the Project Monitoring Unit (PMU). The quarterly report was rarely given to the donor so it was difficult to keep track on the project progress. This has also led to weak post-implementation data bank.

Table 11. Project Basic Description of the Project

1.	Country	:	Ethiopia
2.	Title of Project	:	Sidamo-Gamo Gofa Peasant Agriculture Development Project (PADEP III)
3.	Borrower	:	Government of Ethiopia
4.	Beneficiary and Executing Agency	:	Ministry of Agriculture (MOA)

Source: Project Completion Report, AfDB, 2005

Table 12. Comparative Table of Project Costs by Source of Finance

1.	Total Cost		22.51			
2.	Financing Plan		<u>F.C</u>	<u>L.C</u>	<u>F.C.</u>	<u>L.C</u>
	ADF	10.85	8.34	3.11	2.28	
	GOE	-	<u>3.32</u>	-	<u>0.14</u>	
	Total	<u>10.85</u>	<u>11.66</u>	<u>3.11</u>	<u>3.42</u>	

Source: ProjectCompletionReport, AfDB, 2005

Overall, the project did not meet its principal objectives, and therefore, did not achieve the desired impact on the target population.

Table 13: Input and outcome of the Sidamo-Gamo project

Input					Participation				Outcome	
Implementing Agency	Category	Region	Country	Period	Financial Contribution	Planning	Implementation	Monitoring & Evaluation	Productivity	Income
AfDB - Ministry of Agriculture (MOA)	Crop 2	Africa	Ethiopia	1997-2004	2.50%	2	4	2	minus	Minimum

4. Regression Analysis

In order to find out the relationship between the input and outcome variables, regression analysis was used using Microsoft Excel Megastat⁴ as a tool.

Duration, financial contribution, and participation levels are three big input categories. Participation levels are divided again into three different stages of the project activities: Planning, Implementation, and Monitoring & Evaluation.

Correlation matrix was used to figure out the most relevant parameters between input and outcome variables.

Naturally there are strong positive correlations among input parameters. The projects with more financial contribution from local parties tend to have more local participation on planning stage, and the projects with more local participation on planning stage also have

⁴Megastat is an analysis add on feature of Microsoft Excel program, a registered trademark of J. B. Orris, Butler University

more local participation on implementation stage. Among the input variables, the strongest relations are found between Implementation and Monitoring & Evaluation. However, what we need to analyze is relations between input and outcome variables, not among the same variables. Therefore, the parts where input variables and outcome variables meet (marked in red) are important figures to look at. Among those important variables, Monitoring & Evaluation has the strongest correlation with income growth.

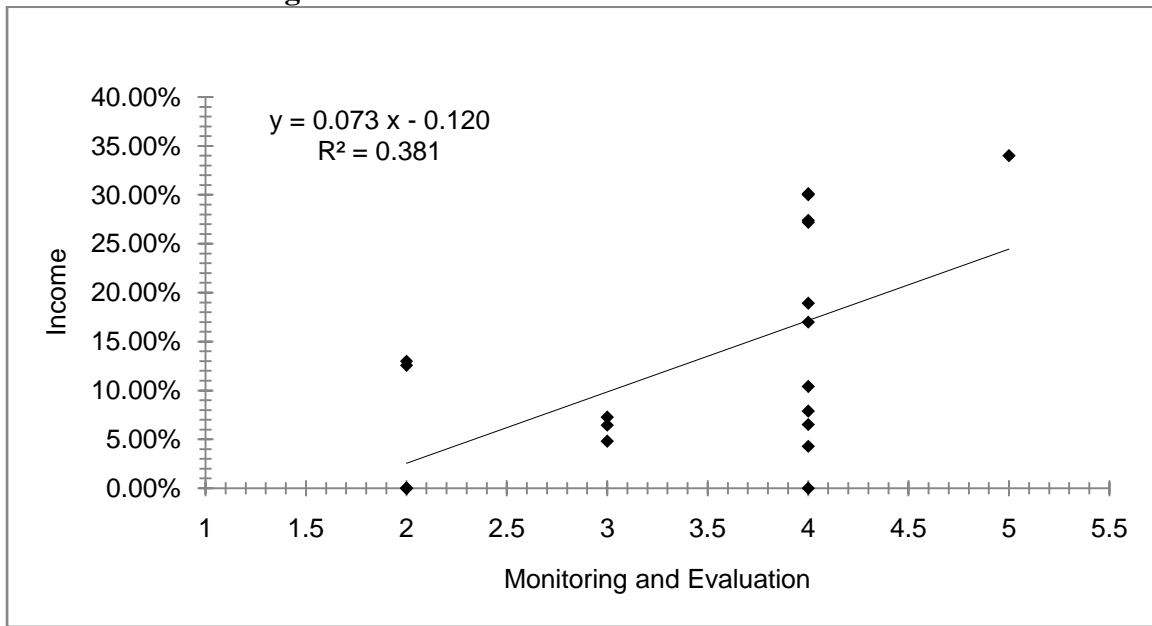
Table 14. Correlation Matrix with realized projects

	Duration	Financial contribution	Planning	Implementation	Monitoring and Evaluation	Productivity	Income
duration	1.000						
Financial contribution	.128	1.000					
Planning	-.183	.612	1.000				
Implementation	.092	.361	.608	1.000			
Monitoring and Evaluation	.067	.227	.585	.732	1.000		
Productivity	-.323	.132	.425	.154	.378	1.000	
Income	-.237	.215	.539	.431	.617	.183	1.000

21 sample size

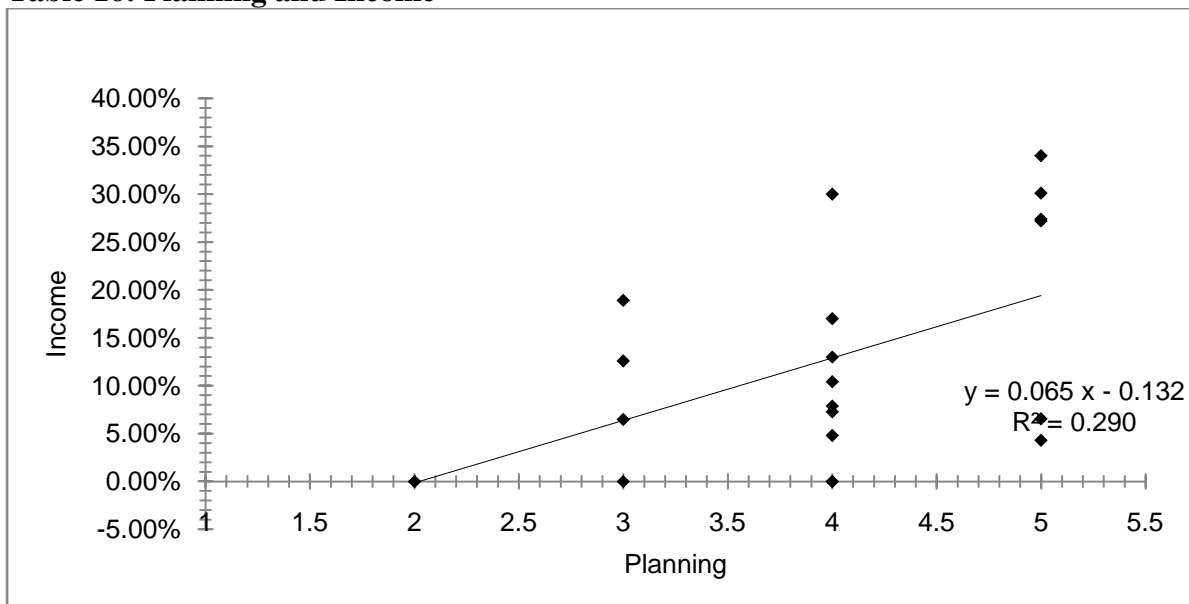
In addition to the correlation analysis, a multiple regression among 3 different participation variables and income was conducted to find out more precise relationships between the input and outcome variables. This again confirmed the strong relationship between Monitoring and Evaluation and Income. When the local parties get actively involved in the Monitoring and Evaluation stage of the project activities, income of the beneficiaries shows bigger growth rate.

Table 15: Monitoring & Evaluation and Income



Though not as strong as Monitoring and Evaluation stage, participation in the planning stage also shows a positive relation to the income growth.

Table 16: Planning and Income



In addition to the correlation analysis, multiple regressions among three different participation variables and income was conducted to find out more precise relationships between the input and outcome variables. This again confirmed the strong relationship between Monitoring and Evaluation and Income.

Table 17. Multiple Regressions among Participation Variables

R ²	0.741		
Adjusted R ²	0.698	n	21
R	0.861	k	3
Std. Error	0.091	Dep. Var.	Income

ANOVA table

Source	SS	df	MS	F	p-value
Regression	0.4280	3	0.1427	17.18	1.61E-05
Residual	0.1495	18	0.0083		
Total	0.5775	21			

Regression output

variables	coefficients	std. error	t (df=18)	p-value	confidence interval	
					99% lower	99% upper
(No Intercept)						
Planning	0.0375	0.0281	1.334	.1990	-0.0435	0.1185
Implementation	-0.0604	0.0296	-2.044	.0559	-0.1455	0.0247
Monitoring and Evaluation	0.0727	0.0299	2.433	.0256	-0.0133	0.1588

5. Key Findings

By reviewing 30 selected agricultural projects currently completed in Africa and Southeast Asia, I could find that local participation in agricultural projects play an important role on the effectiveness of the projects. An interesting finding is that the impact of the participation level is more on the income growth of the beneficiary farm families than productivity growth of the farms. An obvious finding is that each participation category has positive impact to each other. When local parties make a bigger financial contribution to a project, they tend to participate more on the planning and implementation of the project. Among 3 different participation stages, active involvement in the monitoring and evaluation of a project has the highest impact of the outcome of the projects. Active involvement in the planning of projects has the 2nd highest impact of the outcome of the projects. On the other hand, duration of a project plays somewhat negative role on the outcome of the project. If a project is delayed or prolonged, the project tends to have less desirable outcome than others.

CHAPTER IV: CONCLUSION

This study further confirms that the local participation in each development stage has a positive relationship with the effectiveness of a development project. Local government's management role is also very important. As shown in the Emergency Agricultural Production Recovery Project case, strong local initiative in planning and implementation was mainly driven by the governmental leadership, not the donor organizations. When the local party has higher participation in the monitoring and evaluation of a project, it contributes highly in the sustainability of the project outcome.

Therefore, in order to make a project successful, it is important to have a local initiative from the beginning and the beneficiary farmer's active participations to continue the effectiveness outcomes of the project after the project is implemented. Since this study is conducted with a limited number of projects (only 21 for data analysis), in order to make the argument stronger, continuous data collection and analysis on completed agricultural projects is recommended.

APPENDICES

APPENDIX 1: LIST OF THE PROJECTS

	Project	Implementing Agency	Region	Country
1	Cotton made in Africa (PPP)	GIZ	Africa	Benin, Burkina Faso, Zambia
2	Prosopis Management in Ethiopia	FARM-Africa	Africa	Ethiopia
3	Development and Dissemination of Water-Saving Rice Technologies in South Asia	IRRI	Asia	Bangladesh, India, Nepal, Pakistan
4	Improved cassava production, processing and marketing project in Nakasongola	FARM-Africa	Africa	Uganda
5	Diversifying markets and utilization of tissue culture banana through value addition and processing.	International Service for the Acquisition of Agri-biotechnology Application (ISAAA)	Africa	Kenya
6	Agriculture Sector Development project	ADB	Asia	Cambodia
7	Sidamo-GamoGofa Peasant Agriculture Development Project	Ministry of Agriculture (MOA)	Africa	Ethiopia
8	Way Sekampung Irrigation Project	JICA	Asia	Indonesia
9	National Agricultural and Livestock Extension Rehabilitation Project (NALERP)	AfDB	Africa	Tanzania
10	Shifting Cultivation Stabilization Pilot Project	ADB	Asia	Lao People's Democratic Republic
11	The The Project for Improvement of Plant Quarantine Treatment Techniques Against Fruit Flies on Fresh Fruits	JICA-PEQC	Asia	Viet Nam
12	Traditional Fishing and Fish-farming Development Project	Communities of Fishermen;	Asia	Guinea
13	Macadamia Smallholder Development Project	Ministry of Agriculture and Food Security, Malawi	Africa	Malawi
14	Emergency Agricultural Production Recovery Project - PRAUPA	MINAGRI	Africa	Rwanda
15	Savannah Sugar Rehabilitation Project	Savannah Sugar Company Limited	Africa	Nigeria
16	Smallholder Development Project in North Lower Guinea	IFAD	Africa	Guinea

17	Agrarian Reform Infrastructure Support Project Phase II	JICA-GoP	Asia	Philippines
18	Crop Diversification and Commercialization Project	ADB	Asia	Nepal
19	National Livestock Productivity Improvement Project (NLPIP)		Asia	Uganda
20	Northern Community Managed Irrigation	ADB	Asia	Lao People's Democratic Republic
21	SECOND BARANI AREA DEVELOPMENT PROJECT	ADB-IFAD	Asia	Pakistan
22	Cocoa Rehabilitation Project	Ghana Cocoa Board	Africa	Ghana
23	Participatory Livestock II	ADB-Danida	Asia	Bangladesh
24	Outer Islands Agriculture Development in Tonga	ADB	Asia	Tonga
25	Tea and Fruit Development Project	ADB	Asia	Vietnam
26	Poor Farmers' Income Improvement Through Innovation Project	ADB	Asia	Indonesia
27	Northern Sumatra Irrigated Agriculture Sector Project	ADB	Asia	Indonesia
28	Agribusiness Development	ADB	Asia	Pakistan
29	Artisanal Fisheries Development Project	Institute for Small-scale Fisheries Development (IDPPE)	Africa	Mozambique
30	Plantation Development Project	ADB-MPI	Asia	Sri Lanka

APPENDIX 2. CATEGORY OF EACH REALIZED PROJECTS

	Project Title	duration	Financial contribution*	Planning	Implementation	Monitoring and Evaluation	Productivity	Income	Period
1	Agriculture Sector Development project	5	2.43%	3	4	2	9.30%	12.57%	1997-2004
2	Sidamo-GamoGofa Peasant Agriculture Development Project	4	2.50%	2	4	2	0.00%	0.00%	1989-1999
3	Way Sekampung Irrigation Project	7	2.60%	3	4	4	60.00%	0.00%	1999-2007
4	National Agricultural and Livestock Extension Rehabilitation Project (NALERP)	10	4.60%	2	3	2	0.00%	0.00%	2005-2008
5	Shifting Cultivation Stabilization Pilot Project	8	6.67%	3	5	4	10.36%	18.90%	2001-2009
6	The The Project for Improvement of Plant Quarantine Treatment Techniques Against Fruit Flies on Fresh Fruits	3	8%	4	4	2	50.00%	0.00%	2001-2008

7	Traditional Fishing and Fish-farming Development Project	8	9.30%	4	4	2	0.00%	0.00%	2000-2005
8	Macadamia Smallholder Development Project	7	9.50%	4	5	4	5.90%	10.40%	1995-2000
9	Emergency Agricultural Production Recovery Project - PRAUPA	5	10.15%	5	5	5	32.00%	34.00%	1996 – 2003
10	Agrarian Reform Infrastructure Support Project Phase II	3	18%	5	4	4	35.70%	27.40%	2004-2010
11	Crop Diversification and Commercialization Project	7	18.48%	3	4	3	6.94%	6.46%	2004-2011
12	National Livestock Productivity Improvement Project (NLPIP)	6	21%	4	4	4	30.00%	30.00%	1993-1998
13	Northern Community Managed Irrigation	7	22.50%	5	5	4	36.90%	30.10%	1991-1999
14	SECOND BARANI AREA DEVELOPMENT PROJECT	5	23.90%	4	4	3	35.48%	4.80%	1997-2003
15	Cocoa Rehabilitation Project	8	25.80%	4	5	4	9.00%	17.00%	1996-2001
16	Participatory Livestock II	6	29%	4	4	3	7.26%	7.26%	2001-2008

1 7	Tea and Fruit Development Project	7	29.30%	4	5	4	21.90%	7.88%	1998- 2006
1 8	Poor Farmers' Income Improvement Through Innovation Project	8	33.17%	5	5	4	4.24%	4.30%	2006- 2011
1 9	Northern Sumatra Irrigated Agriculture Sector Project	8	38.50%	5	5	4	60.00%	6.52%	2003- 2010
2 0	Agribusiness Development	5	39.80%	5	5	4	29.40%	27.20%	2003- 2009
2 1	Artisanal Fisheries Development Project	7	47%	4	4	2	14.00%	13.00%	2002- 2006

APPENDIX 3. EXAMPLE OF THE REPORT USED AS BASIS OF THE EVALUATION

Source: A project completion report from the Asian Development Bank

Financial contribution

Table A4.3: Project Investment Costs
(\$)

	2003	2004	2005	2006	2007	2008	2009
Investment Component	439,200	32,328	5,287,593	2,953,221	74,830	971,237	179,962
Non-ADB financing	1,764,601	129,886	21,244,285	11,865,336	300,649	3,902,198	723,044
Subtotal all financing	2,203,801	162,214	26,531,878	14,818,557	375,479	4,873,435	903,006
Other Components							
Civil works	93,317	50,081	275,384	158,116	1,054,412	2,362,500	651,483
Equipment	9,411	7,709	45,910	2,926	75,815	216,288	101,369
Vehicles	98,283	54,559					
Training, social			3,032	1,188	23,065	112,781	152,188
Training, other	13,505	14,107	60,548	12,590	49,711	19,587	30,969
Research	5,601	1,857	6,696		19,696	31,869	109,999
Recurrent costs	154,221	18,851	196,691	84,940	154,896	142,399	85,279
Consulting services	661	17,510	16,767	468	6,467	1,681	10,399
Quality certification					170,625	930,712	748,717
Interest		4,534	4,829	14,577	17,543	44,114	37,351
Subtotal social	374,999	169,208	609,857	274,805	1,572,230	3,861,931	1,927,754
Non-ADB Financing	345,442	155,871	561,789	253,145	1,448,310	3,557,541	1,775,812
Social, All Financiers	720,441	325,079	1,171,646	527,950	3,020,540	7,419,472	3,703,566
Project Total	2,924,242	487,294	27,703,524	15,346,508	3,396,019	12,292,907	4,606,572

ADB = Asian Development Bank.

Source: ADB project records.

Productivity Growth

Table A4.8: Estate Crop Yields
(kilograms per hectare)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Tea replanting mid or high (with project)	0	0	0	0	2,09	2,82	2,33	2,10	1,90	3,000
Tea replanting mid or high (without project)	1,40	1,40	1,20	700	675	1,37	1,10	675	650	1,250
Coconut replanting (with project), nuts per hectare	0	0	0	0	0	0	1,00	2,00	3,00	3,000
Coconut replanting (without project), nuts per hectare	2,50	2,50	2,00	2,00	2,00	1,50	1,50	1,50	1,50	1,500
Rubber replanting, kilograms per hectare	0	0	0	0	0	0	762	1,54	2,22	2,366

Sources: ADB PPTA Reports; EML, 2009 Evaluation of Plantation Development Project Report for PMO; Field Interviews

PROJECT EVALUATION

PROJECT COMPLETION REPORT RATING

Criterion	Weight (%)	Definition	Rating Description and Value	PCR Rating	PCR Weighted Rating
Relevance	0.2	The consistency of the Project's goal, and outputs with the Government's development strategy, ADB's lending strategy for the country, and ADB's strategic objectives at the time of approval and evaluation.	Highly Relevant (3) Relevant (2) Partly Relevant (1) Irrelevant (0)	2.0	0.4
Effectiveness	0.3	The achievement of purpose as specified in the policy goals and the physical, financial and institutional objectives adopted at project approval, or as formally modified during implementation.	Highly Effective (3) Effective (2) Less Effective (1) Ineffective (0)	2.0	0.6
Efficiency	0.3	Comparison of the achievement of project purpose with the use of inputs based on implementation performance with consideration of the EIRR or cost effectiveness of the investment.	Highly Efficient (3) Efficient (2) Less Efficient (1) Inefficient (0)	2.0	0.4
Sustainability	0.2	Likelihood that human, institutional, and financial resources are sufficient to support achievement of results and benefits over the economic life of the project.	Most Likely (3) Likely (2) Less Likely (1) Unlikely (0)	2.0	0.4
Overall Assessment (Weighted average of above criteria)	1.0	The overall weighted average of the four criteria. If one of the criteria has a score of 0, the rating to be downgraded to partly Successful.	Highly successful (OWA > 2.7) Successful (1.6 < OWA < 2.7) Partly Successful (0.8 < OWA < 1.6) Unsuccessful (OWA is < 0.8)		1.8

ADB = Asian Development Bank, EIRR = economic internal rate of return, OWA = overall weighted average, PCR = project completion report
Source: ADB, 2009, Guidelines for Preparing Performance Evaluation Reports for Public Sector Operations, Manila.

BIBLIOGRAPHY

REFERENCES

Adikeshavalu, R. *An assessment of the impact of Bangalore Community Report Card on the performance of public agencies*, Washington D.C, ECD Working Paper Series 12, The World Bank Evaluation Department, The World Bank, June, 2004.

Bhatta, S. D. and Sharma, S. K. *The Determinants and Consequences of Chronic and Transient Poverty in Nepal*, CPRC Working Paper No. 66, Manchester, Chronic Poverty Research Centre, 2006

Buhl, S., Wei, W. and Xuixiong, W. *Towards comprehensive and participatory poverty monitoring and impact evaluation in Jiangxi province*, Beijing GTZ, 2004.

Mukherjee, N. *Speaking to Power: 27 Voice Tools, Building bridges for participatory learning, action and policy-making*, Concept Publishing Company, New Delhi, 2009.

Mukherjee, A, (ed.) *Participatory Monitoring*, Delhi, Concept Publishing Company, 2004.

Mukherjee, N., (2002), *Participatory Learning and Action with 100 Field Methods*, Delhi, Concept Publishing Co. 2002

Mukherjee, N., *Participatory Rural Appraisal & Questionnaire Survey: Comparative field experience and methodological innovations*, Delhi, Concept Publishing Co., 1995.

The World Bank. "Community Report Card Surveys – A Note on the Concept and Methodology", Washington D., C., Social Development Notes, Participation & Civic Engagement, Note No. 91, February, 2004.

ESCAP, *Rural poverty reduction, Case Studies on Community Participation*, 2009

Farshid Aref. *Farmers' participation in agricultural development: The case of Fars province, Iran*, February, 2011

Arnstein, Sherry R., *A Ladder of citizen participation*, Journal of the American Planning Association, July, 1969

Joo-youl Hur, *A Study on the Characteristics of Residents' Participation for the Comprehensive Rural Village Development Project-With Reference to the Gyeongbuk Rural Village Development Projects*, 2009

Cooke, Bill and Uma Kothari, *Participation: The New Tyranny?* London, New York: Zed Books, 2001

Conning, Jonathan and Michael Kevane, *Community-Based Targeting Mechanisms for Social Safety Nets: A Critical Review*. World Development 30(3):375-394, 2002

Platteau, Jean-Philippe, *Monitoring Elite Capture in Community-Driven Development*. Development and Change 32(2):223-246., 2004

Ghazala Mansuri, *Evaluating Community-Based and Community-Driven Development: A Critical Review of the Evidence*, Development Research Group, The World Bank, 2003