

Summary of Terminal Evaluation of FAPIM

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| I. Outline of the Project | |
| Country: the Republic of Ghana | Project Title: Project for Promotion of Farmers' Participation Irrigation Management (FAPIM) |
| Issue/Sector: Agriculture | Cooperation Scheme: Technical Cooperation |
| Division in charge: JICA Ghana Office | Total cost: |
| Period of Cooperation | (R/D): 2004.8.15 2 years(2004.10.1 – 2006.9.30) |
| | Partner Country's Implementing Organization: Ghana Irrigation Development Authority (GIDA) |
| | Supporting Organization in Japan: |
| Related Cooperation: | |
| 1 Background of the Project | |
| <p>The Japan International Cooperation Agency (JICA) has supported the irrigation sector in Ghana since 1988. For the promotion of sustainable irrigated farming system, JICA has implemented several technical cooperation with the Ghana Irrigation Development Authority (GIDA) including (1) dispatch of Japanese experts and establishment of Irrigation Development Center (IDC)(1988-1992), (2) a mini-project aimed at building the institutional capacity of IDC(1992-1995), and (3) a Small-Scale Irrigated Agriculture Promotion Project (SSIAPP)(1997-2001) and its follow-up project (SSAPP-FU) (2002-2004) aimed at improving farming system in Ashaiman and Okyereko schemes and strengthening GIDA's human resource capacity for dissemination into other 20 irrigation schemes. These technical cooperation have achieved not improved GIDA's capacity but also improved farming technologies of small-scale farmers in existing GIDA's irrigation schemes through the intensive trainings during JICA's cooperation period.</p> <p>Although the method of Joint Irrigation System Management (JISM) had been introduced since the 1990's in Ghana, preparation of the legal arrangement for its promotion has been delayed. The issues that have been raised by the result of SSIAPP-FU were that the official laws and regulations need to be established for promotion of farmers' participation in irrigation management. It was recognized that unclear demarcation between government agencies (GIDA) and farmers' cooperatives in irrigation management is a major constrain for the promotion of sustainable irrigated farming system in the country. Given the situation, the Ghanaian and Japanese Governments agreed to start a project known as the Project for Promotion of Farmers' Participation in Irrigation Management (FAPIM) with GIDA in October 2004. FAPIM aimed at introducing the concept of participatory irrigation management by sharing irrigation facility management between GIDA and farmers' cooperatives.</p> | |
| 2 Project Overview | |
| <p>The Project Purpose is to formulate agreement on irrigation management between GIDA and farmers cooperatives, to prepare legal arrangement as evidence and to strengthen GIDA's function in service delivery.</p> | |
| (1) Overall Goal | |
| <p>(1) Income per farmer from irrigated agriculture is increased on irrigation schemes under GIDA. (2) Farmers Participation in Irrigation Management is developed in Ghana.</p> | |
| (2) Project Purpose | |
| <p>(1) Foundation for Farmers' participation in Irrigation Facility Management of Irrigation Schemes under GIDA, based on the new rules and regulations is established. (2) GIDA's function in service delivery on irrigation farming technology is strengthened.</p> | |
| (3) Outputs | |
| <p>(1) Legal arrangement to promote farmers' participation in irrigation management is prepared (2) Implementation of farmers' participation in irrigation facility management between GIDA and farmers' organization is prepared. (3) Capacity of GIDA staffs in planning and implementation of training on irrigation farming technology is improved.</p> | |

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| (4) Inputs | | |
| Japanese side: | | |
| Long-term Expert | 7 | Equipment \$143,636 |
| Short-term Expert | 2 | Local cost \$178,181 |
| Trainees received | 1 (10M/M) | Others Non |
| | | <u>Total Cost \$2.3 million</u> |
| Ghana's Side: | | |
| Counterpart | 31 | Equipment Non |
| Land and Facilities Project Office | | Local Cost \$1,554 |
| Others | Non | |
| II. Evaluation Team | | |
| Members of Evaluation Team | (1) Team Leader: Mr. HANAI Junichi, Team Director of Central & West Africa Team, Rural Development Dep., JICA (2) Irrigated Agriculture/ Farmer Cooperative: Dr. TOKIDA Kunihiro, Senior Advisor, Institute for International Cooperation, JICA (3) Evaluation Planning Management: Ms.TATSUTA Akiko, Project Formulation Advisor, Agriculture and Rural Development, JICA Ghana Office (4) Evaluation and Analysis: Dr.WATANABE Junichi, Senior Planner, International Development Centre of Japan (IDCJ) | |
| Period of Evaluation | 24/ 7/ 2006 ~ 6/ 8/ 2006 | Type of Evaluation: Terminal |

III. Results of Evaluation

1 Summary of Evaluation Results

Legal arrangement such as Legislative Instrument (L.I.) 1350 and L.I.60 has been prepared for the achievement of establishment of farmers' participation in irrigation facility management (Purpose I). 10 Joint Irrigation System Management (JISM) Agreement were signed by both GIDA and the Irrigation Farmer Cooperative (IFC). As for strength of GIDA's function in service delivery (Purpose II), 8 training programs such as onion seed breeding, etc. have been implemented with full satisfaction of the participants (the number of total participants is 466). Therefore, it was judged that the project purpose may be achieved according to initial schedule on the Plan of Operation (PO).

As the result of farmers' interview indicates the positive correlation between establishing farmers' participation in irrigation facility management (Purpose I) and increasing farmers' income (Overall Goal I), the project impact has been substantially secured by executing appropriate joint irrigation management. Since the technical skills of the GIDA counterparts have been improved in terms of JISM, if sufficient budget could be allocated to GIDA, there would be a good prospect of achievement of overall goal.

(1) Relevance

The Project is relevant for Ghanaian agricultural development policy and Japanese cooperation policy described below. This is simply because development of irrigated agriculture cooperated by the Project is essential to agricultural development and poverty alleviation through increasing the income of smallholder farmers in Ghana. As concrete strategies in Ghanaian policy, rehabilitation of viable irrigation facility, introduction of Participatory Irrigation Management (PIM) as well as development of new irrigation schemes are being pursued.

(1) Ghanaian Policy

The National Irrigation Policy, Strategies and Regulatory Measures (May 2006) emphasizes sharing GIDA's responsibility with farmers' participation in irrigation management in line with PIM.

(2) Japanese Cooperation Policy

The activation of rural economy through increasing the incomes of smallholder farmers is clearly described in Japan's Country Assistance Plan for Ghana revised in May 2006. This will be materialized by the improvement of agricultural productivity, processing and marketing in combination with rural infrastructure development. Its focal cooperation areas of agricultural development emphasise improving irrigation and drainage facilities, improving farming systems, and building capacity of extension officers, farmers and relevant institutions.

(2) Effectiveness

The Purpose I (Foundation of Farmers' participation in Irrigation Facility Management): Achieved; 10 JISM Agreements were signed by both GIDA and the Irrigation Farmer Cooperative (IFC), while the Objectively Verifiable Indicator (OVI) targets more than 6 JISM Agreement.

The Purpose II (Strength of GIDA's function in service delivery): Prospect of Achievement; 95% of participants were satisfied with the previous 8 training programs cooperated by JICA. 2 training programmes financed by GIDA will be implemented by the end of September 2006.

(3) Efficiency

The Output I (Legal Arrangement): Prospect of Achievement; Draft amendment of L.I.1350 has been formulated and submitted to the Ministry of Food and Agriculture (MOFA). Draft amendment of L.I. 604 has been formulated and will be submitted to Ministries concerned in August 2006. Indicator (1): Draft amendments of existing laws are submitted to Ministries concerned:

The Output II (Agreement Paper): Achieved; 14 JISM Agreements (draft) were formulated, while more than 12 drafts of JISM Agreement are targeted in the OVI.

The Output III (Capacity building of GIDA): Achieved; 8 training programs were implemented and 2 training programs under GIDA budget will be implemented by the end of September 2006, while more than 8 training programs are targeted in the OVI.

(4) Impact

The Overall Goal I: Prospect of Achievement as follows:

The irrigation scheme with more than 70% of farm households continuously having increased or stable income from irrigated agriculture in ten years from 1996 to 2005 can be said as beneficial. The existing schemes are classified into four types, namely expanded (4), maintaining (7), suspended and decreased (10), and abandoned (1). This classification is based on the trend of beneficiary area.

The survey result shows that all 4 expanded schemes are beneficial. 5 out of 7 maintaining schemes are beneficial, and the other 2 schemes are under rehabilitation. One of 10 suspended or decreased schemes is beneficial, and 7 out of the other 9 schemes are under rehabilitation. Incomes of the farm household and condition of irrigation facility have a positive correlation. The implementation of ongoing rehabilitation is expected to increase and stabilize income of farmers from irrigated agriculture.

The Overall Goal II: Prospect of Achievement as follows:

There are three points for the implementation of JISM, namely 1) strong willingness of both GIDA and IFC, 2) condition of irrigation facility, and 3) human resource to manage JISM.

1) **Willingness:** The experience in the current process of the JISM Agreement shows that both GIDA and IFC have strong willingness for its implementation.

2) **Condition:** JICA, Agricultural Sector Services Investment Programme (AgSSIP) and Canadian International Development Agency (CIDA) support rehabilitation of irrigation facilities, and it contributes to the JISM process.

3) **Human resource:** GIDA has been directly involved in the formulation of JISM Agreement, and its staff will be able to follow its process.

It is indicated that JISM concept is being utilized at new irrigation schemes under Small Scale Irrigation Development Project (SSIDP) and Small Farm Irrigation Project (SFIP). Thus, the number of schemes using JISM is expected to be increased under existing and future schemes. This is one of the positive impacts of the Project.

(5) Sustainability

(1) Technical aspect

Technical skill and knowledge of GIDA staff are sufficient in service delivery in the field of crop and vegetable production, agricultural machinery, water management, Operation and Maintenance (O&M) and farmers' organization through the trainings during JICA's cooperation period.

(2) Policy and Institution aspect

GIDA has been playing its important role in feasibility studies, planning and designing of facility construction. In the National Irrigation Policy, the role of GIDA has been clearly earmarked as a pro-active promoter of both public and private irrigation development.

(3) Financial aspects

It should be considered as a positive symptom of public budgetary guarantee that supports GIDA's financial sustainability although the counterpart matching fund has the time limit for its execution. GIDA will sufficiently carry out its technical service delivery to farmers by the use of the matching fund.

In order for GIDA to promote sustainable irrigated farming in the country on its own effort by introducing JISM from now on, two financial problems should be addressed. These are farmers' training costs and rehabilitation costs of the main parts of irrigation facilities such as dams, pumps, main canals, gates and so on. Concerning training costs, GIDA can find more effective means to save costs by cost sharing with farmers. The Government of Ghana should see the rehabilitation of irrigation facilities as social responsibility. Hence, budgetary allocations to GIDA through MOFA should be increased. Special appeal should be made to developing partners by MOFA for assistance, if necessary.

2 Contributing Factors

(1) Factors Regarding Planning

It had been recognized that the lack of national irrigation policy was one of the reasons for stagnation of irrigation development. The Government of Ghana reached accord on the completion of the policies in 2006 to accelerate promotion of irrigated farming and develop new irrigation schemes which the international donors already committed for funding. Since GIDA's responsibilities which are not limited only to agronomy but also includes engineering have been highlighted by the national policies, the foundation of sustainable irrigation farming system would be established by the outcome of the projects.

(2) Factors Regarding the Implementation Process

The method of irrigated farming introduced by JICA's past cooperation have been fully and effectively utilized in not only the existing GIDA's irrigation schemes but the new schemes, all the outcome of the past cooperation have accomplished successful outputs of the project.

3 Inhibiting Factors

(1) Factors Regarding Planning

Completion of rehabilitation work of irrigation facilities supported by World Bank and CIDA is prerequisite for introduction of JISM. However, the rehabilitation work was delayed due to difficulties such as complicated procedures of procurement; this resulted in the slow introduction of the JISM method. Therefore, based upon discussions of Joint Coordination Committee (JCC) in November of 2005, the project team categorized the existing GIDA's irrigation schemes in the order of state of facilities and introduced the JISM method gradually adjusting to the priority.

(2) Factors Regarding the Implementation Process

Several training activities such as water management or facility maintenance were insufficient due to the delay of rehabilitation work and inadequate of counterpart funds. However, the project team started some trials of on the job training intensively at the project final stage and reached successful outputs. Therefore, it could be possible that the GIDA staff would carry training activities by their self-help efforts to strengthen the capacities of farmers' organizations.

4 Conclusion

The Team concludes that the Project activities have been smoothly implemented with joint effort of both governments. The efficiency of the Project has been substantially secured by allocating Ghanaian budget for the Project activities, and there was no significant negative cause in this aspect. The capacity and skills of the GIDA counterparts have been strengthened in terms of the capability on training formulation and service delivery to the farmers, thus sustainability of the Project is assured.

Based on the findings mentioned above, it is concluded that the Project will be terminated in September 2006 as planned. It is also concluded that the super goal of our cooperation since 1988, promotion of irrigated agriculture in formal irrigation schemes, is considered to be achieved by implementing the JISM as a successful attainment of the Project.

5 Recommendation

5-1. Short Term Issues (During the remaining cooperative period of the Project)

(1) Inventory of farmers' organization

Strengthening farmers' organization becomes prerequisite to implement JISM. Inventory survey of farmers' organization at each irrigation scheme is needed to grasp the situation of the farmers' organization. This should be done by the Project collecting information such as membership, sub-committee, fee collection system, farmers' needs, agricultural production, income, etc. GIDA project managers at the schemes should update the inventory and submit the progress report of JISM to GIDA headquarters periodically. As for GIDA, it is necessary to prepare the annual report on the basis of each project reports as the minimum requirement.

(2) JISM implementation strategy

The Project has to make a JISM implementation strategy and to make action plans for each scheme. The strategy should prioritize the schemes to start JISM based on the progress of rehabilitation of the projects and preparedness of farmers' organizations and the implementation capacity of GIDA project staff of each scheme.

5-2. Medium and Long term issues (After the FAPIM project completion)

(1) Successful implementation of JISM in formal irrigation schemes

After the termination of the Project, GIDA should take initiative to complete JISM agreement in the remaining formal irrigation schemes where rehabilitation works are completed. In order for farmers to understand strengthening farmers' organization, it is suggested that GIDA should utilize Ashaiman and Okyereko irrigation schemes as models by showing their experience during the cooperation period.

(2) Capacity building of project managers

For the promotion of sustainable irrigated agriculture, it is necessary to transfer facilitation skills to enhance farmers' organization as well as technical skills and knowledge, and O&M techniques which have been accumulated in IDC i.e. the Project Operations Directorate through the Project implementation to the project managers in the schemes.

(3) Budget allocation for the JISM execution

For the execution of JISM, it is necessary for GIDA and MOFA to acquire budget allocation to implement trainings for the project managers and farmers such as farmer organization strengthening, irrigation water management and O&M. In addition, for effective utilization of GIDA's limited financial resources, it is necessary to improve GIDA's financial management ability. GIDA should also implement prioritized activities in selected irrigation schemes.

(4) Effective use of the outputs of the Project in the new role of GIDA

GIDA should carry out its role and responsibility not only in the existing irrigation schemes but also in new and commercial irrigation schemes. It is desirable to utilize the outputs of the Project such as irrigated farming technology and JISM introduction methods.

Other recommendations mentioned in the Evaluation Report are the following: 「Strengthening of farmers' organization as prerequisite of JSIM」 「Rapid implementation of rehabilitation work」 「Linking with concerned organizations」

6 Lessons Learned

(1) Functional irrigation facility as precondition of JISM

To implement successful irrigation management with farmers' participation, it is necessary to have a functional irrigation facility for each scheme as a precondition. Without having this precondition, it may not only delay the farmers' participation in the management but also create a serious adverse effect such as abandoning irrigated agriculture.

(2) Joint irrigation system development

It is suggested that both engineers and agronomists work together on promoting irrigated agriculture for the sake of betterment of beneficiary farmers, and accountability of GIDA as the public entity is a condition to have better understanding of farmers that leads to smooth implementation of JISM. In addition, involvement of the farmers at the design stage of irrigation scheme is a key to facilitate the implementation of JISM, and this may be called "Joint Irrigation System Development."

7 Follow-up Situation

Non