

Summary of the Results of Evaluation Study

I. Outline of the Project	
Name of Country: The Republic of Ghana	Project Title: The Project for Enhancing Market-Based Agriculture by Smallholders and Private Sector Linkages in Kpong Irrigation Scheme (MASAPS-KIS)
Issue/Sector: Agriculture Development	Cooperation Scheme: Technical Cooperation Project
Office In-Charge: JICA Ghana Office	Total Cost: 427,423,000 yen (Disbursement estimate until January 2021)
The Project Period: January 2016 – January 2021 (five (5) years)	Partner Country’s Implementing Organization: Ghana Irrigation Development Authority (GIDA) Related Institutions (Japan): n.a.
<p>1-1. Background of the Project</p> <p>Rice is one of the most important staple crops in Ghana. The domestic paddy production increased from 240,000 metric tons to 570,000 metric tons between 2004 and 2013. Meanwhile, the population growth, urbanization, and changes in consumer habits have induced increase of annual per capita consumption of rice; from 15.4kg in 2000 to 37.5kg in 2010. In 2013, the total rice available for consumption was estimated to be around 1,037,000 metric tons, exceeding the production volume. To compensate the insufficient supply of domestic rice and meet the increasing demand, Ghana has depended largely on imports. Increase and sustainable domestic production of quality rice has strategic significance to the Government of Ghana in view of food security, import substitution, and foreign exchange savings of the country.</p> <p>Rice production in Ghana is predominantly rain fed (90%). In pursuit of increasing the production capacity effective irrigation management was considered to be imperative because the average yield of rain-fed rice production was 2.96 MT/ha, and that in the irrigated sites was 4.8MT/ha¹. At the time of appraisal study, the total land area under irrigation was 222,978 Ha, of which formal irrigation schemes accounted for 12,978 Ha (about 80% is used for rice cultivation). With the climate change affecting rain-fed agriculture unfavourably, there was a greater importance of producing more rice under irrigation scheme, and improvement of irrigation management was needed to be addressed.</p> <p>In this context, the Technical Cooperation Project for the Enhancing Market-Based Agriculture by Smallholders and Private Sector Linkages in Kpong Irrigation Scheme (hereinafter referred to as “the Project”) was requested, with the aims to increase agricultural production through improvement of capacities of GIDA officers, Water Users Associations (WUAs), productivity and promotion of market-oriented agriculture in KIS area.</p> <p>1-2. Project Overview</p> <p>(1) Overall Goal: The total agricultural production in irrigation schemes of Ghana is increased</p> <p>(2) Project Purpose: The agricultural production in KIS is increased.</p> <p>(3) Outputs:</p> <ol style="list-style-type: none"> 1) The capacity of GIDA for scheme management oversight in KIS is developed. 2) The management capacity of WUAs is strengthened. 3) The appropriate techniques for KIS is identified and practiced by trained farmers. 	

¹ National Rice Development Strategy (2019 – 2030) Draft. Ministry of Food and Agriculture. 2019.

4) Market-Oriented Agriculture is promoted in KIS.

(4) Target Areas: Kpong Irrigation Scheme (KIS)

(5) Implementing Agency: Ghana Irrigation Development Authority (GIDA)

(6) Inputs:

Japanese Side

- (a) Dispatch of Experts
- (b) Training
- (c) Equipment

Ghanaian Side

- (a) Staff assignment
- (b) Suitable office space with necessary equipment for the Project
- (c) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA
- (d) Available data (including maps and photographs) and information related to the Project
- (e) Counterpart Fund necessary for the implementation of the Project

II. Evaluation Team

Ghanaian Side	Mr. Godfred Antwi, Project Coordination Unit Policy Planning Monitoring and Evaluation Directorate Ministry of Food and Agriculture Mr. Kennedy Donyong, Monitoring & Evaluation Unit Policy Planning Monitoring and Evaluation Directorate Ministry of Food and Agriculture Ing. Eric Samuel Adu Dankwa, Director, Planning, Monitoring, Evaluation & Coordination, Ghana Irrigation Development Authority (GIDA)	
Japanese Side	Mr. Minoru Matsunoshita, JICA Headquarters Mr. Megumi Shuto, JICA Headquarters Ms. Kazuko Shirai, Consultant Kaihatsu Management Consulting Inc. Ms. Takako Mochizuki, Kaihatsu Management Consulting Inc.	
Period of Evaluation	September 16 – October 9 2020	Type of Evaluation: Terminal Evaluation

III. Results of Evaluation

1. Project Performance

1-1. Achievement of Project Purpose

The Evaluation Team confirmed the levels of achievement of the Project Purpose indicators as follows and concluded that the Project Purpose is expected to be achieved.

Indicator 1: 100% collection rate* of Irrigation Service Charge in two model WUAs is achieved in 2020.

[Almost achieved]

As of June 2020, the collection rates of Irrigation Service Charge (ISC) of two model WUAs – C1 and SLLC-A – are 95 percent and 90 percent respectively.

While not reaching the target, collection rate increased from the previous year (88.5 percent and 89.6 percent respectively), and the cases of two model WUAs significantly outperformed the figures

commonly observed among the water users associations of other irrigation projects supported by JICA.

Indicator 2: 15 WUAs are established in KIS

[Achieved]

Fifteen (15) WUAs have been established in KIS by June 2019.

Indicator 3: The action plan is authorized by General Assembly and implemented at two model WUAs in KIS.

[Achieved]

The action plans of two model WUAs (C1 and SLLC-A) for 2020 have been elaborated and duly approved by General Assembly in August 2020.

As for the implementation of the action plans, WUA SLLC-A is facing some difficulties to execute the original plan because the farmers have been unable to re-start cultivation due to the KIS rehabilitation works.

Indicator 4: The average paddy rice yield of trained farmers is increased to 6.0 MT in major season and 5.0 MT in minor season per ha after training.

[Almost achieved]

Rice yield in major season (2019) was 5.8 MT, corresponding to about ninety-seven (97) percent of the target.

Rice yield in minor season (2019) was 5.0 MT, achieving the target.

1-2. Achievement of Outputs

The Project has implemented its activities without any significant delays in the schedule since its commencement in January 2016 until recently. However, the outbreak of the COVID19 has been causing delays in several activities that need to be completed before the project completion these days.

1) Output 1: The capacity of GIDA for scheme management oversight in KIS is developed.

[Almost achieved]

- The capacity development plan was elaborated, presented at the JCC, and its execution has initiated by 2018.
- In total, 45 GIDA staff have been trained on scheme management oversight.
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2) Output 2: The management capacity of WUAs is strengthened.

[Almost achieved]

- 165 lateral leaders from 11 WUAs have completed the trainings. It corresponds to 82% of the target.
- More than 60 WUA executives have received the training on WUA management. (Target is 50).

3) Output 3 : The appropriate techniques for KIS is identified and practiced by trained farmers.

[Achieved]

- During major season in 2019, 94 percent of the farmers reportedly practiced at least one component of the Optimized Input (OIRiC) techniques. On average, 70 percent of the farmers practiced each component of the OIRiC.
- During minor season in 2019, 97 percent of the farmers reportedly practiced the OIRiC, demonstrating the increase from 90 percent in the previous year.

4) Output 4 : Market-Oriented Agriculture is promoted in KIS.

[Almost achieved]

- A total of 195 farmers, which represents about 97 percent of the target, have been trained in the Small Rice producer Empowerment and Promotion (SREP) training.
- The Project facilitated stakeholders to participate in four marketing activities to encourage farmers and private sector linkages (2016).
- The Project carried out consumer survey to understand the market demand of rice.

1-3. Implementation Process

The Joint Coordination Committee (JCC) as the highest decision-making mechanism of the Project was held four times so far. The Technical Committee (TC) served as a multi stakeholder platform involving GIDA/KIS, WUAs, GCAP, and JICA as members, and MoFA as in an observer status to discuss the Project's technical issues, including the validation of technical capacity materials. The Project was implemented in KIS but has kept close coordination with GIDA HQ as well.

2. Summary of Evaluation by Five Criteria

(1) Relevance: High

The Project is a part of The Planting for Food and Jobs (PFJ) Campaign by GoG and the GoJ's Country Assistance Policy for Ghana. The Project corresponds to the needs of GIDA/KIS, newly established WUAs, and small scale farmers.

(2) Effectiveness: Relatively High

The Project Purpose is almost achieved. Achievement of each output has been contributing to the expected achievement of the Project Purpose. Comprehensive technical assistance and strong engagement of stakeholders have been enhancing the effectiveness, while delay of GCAP rehabilitation works, insufficient agricultural machineries, and additional activities to the Project have weakened the effectiveness.

(3) Efficiency: High

The four Outputs area already achieved or close to full achievement. The inputs from the Japanese side (experts, equipment, and local activity costs) were effectively utilized. The outbreak of the COVID19 has been forcing the Japanese experts to work remotely from Japan. However, the Japanese experts have frequently communicated with the C/P online to continue planning the capacity building activities and developing the training materials. The inputs from the Ghanaian side included the C/P, project offices and activity costs provided by the GIDA/KIS.

(4) Impact: Relatively High

Prospect of Achievement of the Overall Goal

The Overall Goal's indicator (The national agriculture production on GIDA scheme is increased from 44, 189 metric ton (MT) in 2015 to 66,689 MT in 2023) is expected to be achieved in accordance with the projection by GIDA (The national agriculture production on GIDA scheme in 2023 will be 86,000MT). Establishment and operationalization of WUAs in other GIDA schemes and the expansion of irrigated land by the GoG's Pwalugu Irrigation Project are expected to bring about positive impacts on productivity of rice and other crops.

(5) Sustainability: Relatively High

1) Policy Aspect

The legal framework for the establishment of WUAs (the Irrigation Development Authority Regulation, 2016, IWUAR-L.I 2230) remains valid in the foreseen future.

2) Institutional Aspect

The MoFA is reviewing the WUA and water management related guideline/manual elaborated by the Project for approval to replicate KIS experience in other GIDA irrigation schemes.

3) Financial Aspect

GIDA's budget is largely spent on rehabilitation works and also heavily depend on donor money. The GoG funding for WUA establishment remains as challenge, however, the government financial burden from the irrigation scheme management is expected to be lessen with the increased ISCs collection and with the management responsibility shifting from GIDA to SMEs.

4) Ownership of Target Group

The leaders of WUAs showed their commitment to sustainable participatory irrigation management. Farmers are eager to adopt OIRiC techniques to improve productivity and profitability of rice production.

5) Technical Aspect

It is expected that GIDA/KIS officials and extension officers whose technical knowledge and capacities have been strengthened by the Project will continue to apply their acquired skills for better irrigation scheme management and rice production.

3. Factors Promoting Better Sustainability and Impact

【Project Design】

- Technical assistance to improve quality and production capacity of founder seeds (FS) as well as certified seeds (CS) was proposed and carried out to overcome the bottleneck of improving productivity and profitability of rice farmers identified by the baseline study.

【Implementation Process】

- The Project closely and continuously accompanied the establishment and operationalization of the model WUAs, which has helped building solid organizational foundation. Demonstrating how the model WUAs function has facilitated formation of the rest of WUAs in KIS area. Since C/P also engaged in those processes, their ownership of the experience has been nurtured, leading to further commitment to explore self-sustaining activities, such as expansion of seed production and sales, and linkages with private sector.

4. Factors Inhibiting Better Sustainability and Impact

【Project Design】

- Strengthening of access to machinery as a means of using farmland effectively was contemplated at the time of the Project appraisal; however, it has not been translated into concrete assistance in the Project.

【Implementation Process】

- WUA establishment and capacity building activities – originally another donor project component was added to the MASAPS-KIS Project. The Project had to revise its operational plan and took time to generate outputs.
- Nearly one-year delay of KIS rehabilitation works affects farmers' crop calendars and livelihoods. Those farmers who have interests in adopting the OIRiC methodology are unable to practice farming because of lack of irrigation water. WUAs cannot collect the ISCs while needed to revise current annual action plan as well as budget and activity prospects for next year.

5. Conclusion

The Project is in line with the GoG's rice promotion policy and the GoJ's assistance policy. Considering all the achievements and progresses with on-going activities, the Project Purpose is expected to be almost achieved, generating positive impacts socially, economically, and institutionally.

The Project spent tremendous efforts and time to assist the whole process of establishing and operationalization of the first cases of Water Users Associations (WUAs) under the new regulation in Ghana. Although WUAs as participatory irrigation management system is still at incipient stage of institutionalization, important impacts have been observed in terms of significantly improved Irrigation Service Charges (ISCs). Organizational strengthening of WUAs is also leading to women empowerment.

The government stakeholders (i.e. GIDA and KIS) closely accompanied every stage of WUA establishment and operationalization processes and engage in replicating the KIS experiences in other irrigation schemes. The guidelines and manuals elaborated by the Project are undergoing final stage of approval by the government to become official references. They are expected to be used nationwide, thereby to contribute to achieve the overall goal of the Project.

The farmers have experienced important improvement in rice productivity and profitability by changing their production techniques. Successful enhancement of rice seed productions at KIS also opened new business possibilities. Farmers, including those who grow rice seeds, have become more confident with their farming practices, and with the expectation to be able to produce more and better rice and earn money. In order to fully exploit the benefits from the OIRiC and seed production techniques, issues such as budget allocation and the linkages with the private sector value chain actors remain to be addressed.

6. Recommendations

- (1) **Extension of the Project Period for 5 months until June 2021** to carry out the pending activities of the original plan for achieving the Project Output and Purposes, and incorporating (additional) activities as follows:
- (2) **Institutional strengthening**
 - GIDA to continue to assign key officials/staff for the Project implantation and for sustainable usage of knowledge.
 - GIDA to keep monitoring the activities of the WUAs.
 - GIDA/KIS to keep activities to strengthen seed producers group in pursuit of their self-sustaining strategy.
- (3) **Budgeting**
 - MoFA and GIDA to secure appropriate budget allocation and fortify linkages with budget of other national initiatives (PFJ).
 - GIDA to keep the satellite demonstration sites in practice.
- (4) **Amplification of Project outputs**
 - GIDA to finalize the manuals/guidelines, to promote use of manuals/guidelines for other irrigation schemes.
 - GIDA to utilize the results of surveys on Consumer's preference and the demands of domestic rice after sharing the study report.
 - MoFA to take measures to minimize further delay of rehabilitation and modernization works by GCAP, while GIDA/KIS/Project conduct closer monitoring of the rehabilitation progress at KIS and discussions with GCAP and JICA.
 - The Project to provide closer attention and support to the farmers in the area that has been heavily affected by the delay of rehabilitation works.
 - The Project to organize information regarding the market linkages that GIDA/KIS farmers presently have.

7. Lessons Learned

(1) Strengthening of WUAs

- Continuous awareness building activities concerning the mission and value of WUAs and enhanced transparency of decision-making process of ISCs are key factors for the establishment of WUAs and high collection rate of ISCs.
- With functioning WUAs it is possible to raise collection rate of Irrigation Service Charges (ISCs).
- Regardless of the rehabilitation delay, WUAs remain active with several technical supports by the Project.

(2) Enhanced productivity

- Utilization of satellite demo plots has proven to be effective for dissemination of technical transfer.
- Quality seed production has produced substantial positive effects on productivity.
- Capitalization of accumulated resource among the stakeholders enhances the efficiency and effectiveness of technical transfer in the Project target area.

(3) Propositions for the next project

The following can be considered during the elaboration of the design for the upcoming rice-related project in Ghana.

- Fine-tune of the manuals/guidelines developed by the Project based on the characteristics of other irrigation schemes of GIDA.
- Building competitive domestic rice value chain.
- Improvement of access to machineries.
- Designing a Project with careful setting of important “Assumptions” and needs of monitoring.
- Integrating financial inclusion approach to assist farmers access to production inputs and machineries in a timely manner.