Summary of Terminal Evaluation

I. Outline of the Project

<table>
<thead>
<tr>
<th>Country</th>
<th>Project title: Rice Development Project</th>
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<tr>
<td>Republic of Angola</td>
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<tr>
<th>Issue/Sector: Agriculture and Rural Development</th>
<th>Cooperation scheme: Technical cooperation</th>
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<tr>
<th>Division in charge: Agricultural and Rural Development Group2, Rural Development Department</th>
<th>Total cost: 869 million Yen</th>
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<tr>
<th>Period of Cooperation</th>
<th>Cooperation period: August 2013 to August 2019 (6 years)</th>
<th>Partner Country’s Implementing Organization:</th>
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<tr>
<td></td>
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<td>Ministry of Agriculture and Forestry (MINAGRIF),</td>
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<td></td>
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<td>Institute for Agrarian Development (IDA),</td>
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<td></td>
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<td>Agricultural Research Institute (IIA),</td>
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<td>National Directorate of Agriculture (DNA),</td>
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<td></td>
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<td>National Seed Service (SENSE)</td>
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<th>Supporting Organization in Japan</th>
<th>Nil</th>
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1. Background of the Project

The Republic of Angola (hereinafter referred to Angola) had been in the state of civil war for 27 years since 1975 and the economy was significantly damaged. Driven by oil sector, the country recorded stable economic growth in recent years, while its economic structure is greatly dependent on oil revenue (about 50% of GDP), and vulnerable to fluctuation of international oil prices.

Agriculture is the second largest economic sector in Angola that contributes to about 12.2% of GDP (Africa Development Bank 2016). Therefore, it is an urgent issue for Angola to strengthen agriculture sector. However, during the civil war, the sector lost its production capacity to a large extent and self-sufficiency ratio of food remains low.

In Angola, dietary habit has been changing, and more people are eating rice, next to maize and tubers such as cassava and potatoes as the national staple food. Supply of rice is virtually 100% dependent on import: domestic production of 45,000 tons against import of 440,000 tons, while consumption of cassava and maize is covered by domestic production (USDA, 2015).

During the Portuguese colonial period, under the influence of the dietary culture of the suzerain country, both production and export of rice were actively practiced. However, due to the civil war, agricultural land was devastated and rural population was forced to desert their land, and consequently, production of rice significantly decreased.

Meanwhile, the Government of Angola has selected cereals, along with pulses and root vegetables, as one of priority crops to increase production. In line with it, Ministry of Agriculture and Forestry (hereinafter referred to MINAGRIF) has been trying to enhance rice production, through creation of the Rice Unit under Institute for Agriculture Research (hereinafter referred to IIA), import of rice seeds from neighboring countries such as Mozambique and South Africa, and distribution of the seeds to farmers through the Institute for Agrarian Development (hereinafter referred to IDA). However, as know-hows in agriculture is insufficient in general, and rice cultivation techniques are still at low level, it is urgent for the Angolan government to develop human resources, improve rice cultivation
Under the circumstances, the Angolan government requested the Government of Japan for technical cooperation project. In March 2012, a Detailed Planning Survey Mission was dispatched by JICA, and the framework of “Rice Development Project (hereinafter referred to the Project) was mutually agreed through a series of discussions with the Angolan government officials.

The Project officially commenced in August 2013, with the cooperation period of five years with IDA responsible for agricultural extension, in close partnership with IIA for research of rice cultivation techniques, and the National Directorate of Rural Engineering (hereinafter referred to DNER. As of the Terminal evaluation, the role was transferred to National Directorate of Agriculture, DNA), responsible for developing the plan for irrigation schemes. In 2018, the duration of the Project has been extended one year to compensate the missed one cropping season caused by the temporary suspension of activities in the field.

In April 2019, at the final stage of its cooperation term, the Project is required to undergo Terminal evaluation jointly conducted by JICA and relevant Angolan authorities.

2. Project Overview
(1) Overall Goal
The yield of rice in Bié and Huambo province is improved.

(2) Project Purpose
Improved rice cultivation methods are practiced by model farmers in the target sites.

(3) Outputs
1. Current situation and challenges of agricultural production (rice production) in the target areas are clarified.
2. The capacity of IIA in conducting the study and research on rice cultivation and recommended seed multiplication is enhanced.
3. Clarify the direction for irrigation development by DNA and irrigation development is proposed.
4. The technical package for rice cultivation for small farmers is developed by IIA in close cooperation with the IDA and DNA.
5. Consensus is made in MINAGRI on how to implement a rice development policy.

(4) Inputs as of the Terminal evaluation (as of the Terminal evaluation)
Japanese side:
1) Experts 17 experts in total (177.87MM)
2) Persons who participated in trainings in Japan 20 persons
3) Equipment
Milling machines, office supplies and project cars
4) Local operation cost approximately 850 thousand USD as of August 2018

Angolan side:
1) Counterparts: 67 personnel in total
   Central- IDA, IIA, DNA, SENSE
   Province- IDA, EDA, extension officers, Provincial government (Agricultural department)
II. Evaluation Team

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<tr>
<th>Members of Evaluation Team</th>
<th>Name</th>
<th>Title</th>
<th>Position and Organization</th>
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<tbody>
<tr>
<td>Japanese side</td>
<td>Dr. Akira Kamidohzono</td>
<td>Leader</td>
<td>Senior Advisor, Rural Development Department, JICA</td>
</tr>
<tr>
<td></td>
<td>Mr. Go Abe</td>
<td>Cooperation Planning</td>
<td>Assistant Director, Team 5, Rural Development Department, JICA</td>
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<td></td>
<td>Mr. Jun Totsukawa</td>
<td>Evaluation Analysis</td>
<td>Sano Planning Co., Ltd</td>
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<td>Ms. Kyoko Tamai</td>
<td>Interpreter</td>
<td>Translation Centre Pioneer</td>
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<tr>
<td>Angolan side</td>
<td>Mr. Henrique Paiva Alves Primo *</td>
<td>Leader of Angolan side</td>
<td>IDA-Central, Leader of NRDS, Rice Seed Sub-Committee</td>
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<tr>
<td></td>
<td>Mr. Kiakanua Manuvanga</td>
<td>Agro-economist</td>
<td>IIA-Chiangang</td>
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<td>Mr. Daniel Casoma Chivimbi</td>
<td>IDA-Huambo</td>
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<td>Mr. Alvino Cassinda Firmino Qliessongo</td>
<td>IDA-Bié</td>
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Period of Evaluation: 31/March/2019-21/April/2019
Type of Evaluation: Terminal Evaluation

III. Results of Evaluation

3-1. Accomplishment of the Project
3-1-1. Achievement of the Outputs

Output 1: Clarification of situation and challenges of agriculture/rice production in the target areas
The Project has achieved Output 1 as of the Terminal Evaluation.
A variety of information regarding rice production in Bié and Huambo provinces were carefully collected and presented as the “Baseline survey report”. On the basis of the survey’s findings, the Project elaborated the Project plan for the 2nd phase.
Two (2) of Indicators for this output were fulfilled.

Output 2: Capacity enhancement of IIA
The Project has almost achieved Output 2 as of the Terminal Evaluation.
The rice seed production system has been developing step by step. Establishment of Rice Seed Sub-Committee is noted as one of the Project’s highlights; though, there are still some tackling issues to settle such as securement of operational fund/budget and to strengthen cooperative actions among stakeholders. In this line, the Team evaluated the achievement status of this Output “almost” achieved.
The capacity of IIA in conducting the study and research on rice cultivation and recommended seed multiplication was strengthened through a series of the Project activities. However, the number of the counterparts was limited to only one or two persons from the beginning of the Project. The Project’s intervention could not disseminate to entire IIA and not raise technical capacity of entire IIA from organizational viewpoint. This technical transfer factor has influenced negatively on the technical sustainability aspect of the Project’s outputs.
Two (2) of Indicators for this output were fulfilled.

Output 3: Clarification of basic direction in irrigation development
The Project has almost achieved Output 3 as of the Terminal Evaluation.
The basic direction in irrigation development was proposed to MINAGRIF. The small-scale irrigation development plans of rice cultivation at Bié and Huambo were also elaborated. However, the counterpart organizations on this Output 3 have changed from one to another during the Project period. The Project has faced difficulties in seamless technical transfer to the same counterparts. Two (2) of Indicators for this output were fulfilled.

Output 4: Development of the technical package for rice cultivation
The Project has achieved Output 4 as of the Terminal Evaluation. The Rice Cultivation Technical Package for small scale farmers, RCTP, was successfully developed through reflection of lessons from field experiences with farmers and extension officers as well as feedbacks from IIA, IDA and extension officers. In addition, the Rice Cultivation Guide, RCG, was also elaborated in parallel with RCTP. Three (3) of Indicators for this output were fulfilled.

Output 5: Consensus on rice development in MINAGRIF
The Project has achieved Output 5 as of the Terminal Evaluation. National Rice Development Strategy, NRDS, was formulated by the working group composed of key personnel from stakeholder department and/or organizations and received official approval by the minister of MINAGRIF.

In formulation process of the strategy, the working group members frequently made explanation of NRDS to key persons in MINAGRIF. These communication efforts enhanced understandings not only on NRDS contents but also the importance and potentials of rice cultivation in the country. Two (2) of Indicators for this output were fulfilled.

3-1-2 Achievement of the Project Purpose
The Project purpose has been achieved as of the Terminal Evaluation. The majority of the model farmers, 39 farmers among the 44 model farmers, have been applying all the core cultivation items. The core items of RCTP have been well disseminated within farmers through extension officers’ efforts and their effectiveness appeared as a significant increase in their rice production. While the rice production in Bié under traditional cultivation practice stagnated only 0.6 ton/ha, the average production of model farmers in Camulonga village reached 2.85 ton/ha in 2017/18 cropping season.

3-2 Summary of Evaluation
* Five categories are evaluated by five ranks: high, relatively high, moderate, relatively low, and low.

3-2-1 Relevance: High
The Project has been meeting with the Angolan policy, which claims promotion of rice cultivation in the country, placing rice as one of the major staple foods together with maize and cassava. The purpose and activities are in line with the needs of the Angolan counterpart organizations and meeting with the assistance policy of Japan as well. Relevance is, therefore, evaluated high.

3-2-2 Effectiveness: High
“Practicing improved rice cultivation methods” as the Project purpose has been achieved. The core items of Rice Cultivation Technical Package have been well disseminated within farmers and their effectiveness appeared as a significant increase in their rice production. The effectiveness of the Project
is evaluated high.

3-2-3 Efficiency: Relatively high
As to manpower inputs, Japanese side dispatched experts on various technical fields corresponding to targeted techniques in the Project. In addition, the timely switch of some experts corresponding to the progress of the Project has resulted in acceleration of the Project activities positively. Angolan side has also assigned resourceful personnel from respective organizations, though, insufficient number of counterparts was also observed at some technical fields.
Material inputs were almost reasonable; however, limited budget sometimes affected the use of the materials. On the other hand, the trainings in Japan were quite effective inputs for the Project.
Overall, the efficiency is evaluated relatively high.

3-2-4 Impact: High
The possibility to achieve the Overall goal, which is to improve the yield of rice in Bié and Huambo province, is positively prospected.
A variety of ripple effects are also observed in various aspects. Some farmers already started selling rice at their local market and are selling rice seeds to neighboring villages. Positive impact on farmers’ household income is observed. RCG training also welcomed farmers belonging to another project area. Various rice cultivation techniques of the Project are contributing to enhancement of rice production in other villages.
In this line, the impact is evaluated high.

3-2-5 Sustainability: Moderate
It is likely for Angolan government to continuously stress importance on rice production. The policy aspect has high sustainability. The technical capacity of extension officers and rice researchers has been developing; though, in order to ensure their technical sustainability as well as their motivations to work, follow up trainings and improvement of working environment are required. In addition, the budget increase for rice production is expected considering the policy direction; however, the detailed reserved budget is not yet confirmed.
In this line, the sustainability is evaluated moderate.

3-3 Contribution factors
• Effectiveness of the training courses in Japan
The effectiveness of the training is observed especially in performance of some extension officers after they returned Angola. Improvements are seen in the technical aspect such as seed production practices and in the way of extension approaches to farmers. Owing to these improvements, rice cultivation by small scale farmers are now accelerated in their extension areas, and as a result, many more new farmers have interests in starting rice cultivation.

• Communication and information sharing by installation of Technical Coordination Committee, TCC
The Project developed the Technical Coordination Committee, TCC, which invited key stakeholders such as provincial IDA, Agricultural Development Station (EDA), IIA, SENSE and extension officers. The monthly TCC meetings functioned not only to share information of the Project progress but also to give solutions against technical challenges that extension officers sometimes faced. As a
result TCC meetings contributed to enhancing the Project activities including extension practices.

3-4 Inhibition factors
- Budgetary constraints
The Project sometimes faced difficulties in smooth implementation of the Project due to the budgetary constraints of Angolan government. In particular, lack of new employment of counterparts and extension activities and delay of installation of milling machines were influenced negatively.

- Shortage of manpower inputs
The Project faced difficulties in shortage of counterparts at IIA in particular. The number of the counterparts has been limited to 1 or 2 during the whole Project period. Technical transfer sometimes had to cease because of mid-long term leave for their training and/or studying abroad. This technical transfer environment gave negative influence on the achievement status of Output as well as technical sustainability.

3-5 Conclusion
It is concluded that the Project has successfully achieved the Project purpose. The improved rice cultivation techniques have been disseminated to farmers through extension officers. Interests in producing rice have been rapidly growing among farmers at/near model and extension sites. Further extension of rice production is positively prospected.

On the other hand, several crucial issues are not yet settled such as budget and realized cooperative actions among stakeholders on seed production system. It is expected to be solved these issues through the same understandings among all the stakeholders by the end of the Project.

3-6 Recommendations
General
1. Transfer of the Project activities to Angolan side
For ensuring the sustainability after the Project completion, the Project activities should be conducted under Angolan initiatives. Further transfer of the ownership should be made towards the completion of the Project period.

Seed
1. Continuity of Rice Seed Sub-Committee and sustainable implementation of rice seed production
   - It is recommended that Rice Seed Sub-Committee should be sustained its functions, which are to make plans of rice seed production and to monitor its proper implementation.
   - It is most important for each stakeholder, IDA, IIA and SENSE to strengthen cooperative actions based on their respective roles on the rice seed production plan.
   - It is recommended that MINAGRIF secure necessary budget for implementation of the rice seed production plan made by the committee.

2. Increase of rice researchers in IIA
   - It is recommended that IIA increase the number of rice researchers for further development of rice cultivation and production in the future. Considering the importance of pest and disease control, IIA needs to accumulate the knowledge on the field of pest and disease control and if possible, employ researcher(s) on that field.
Extension
1. Continuity of trainings for extension officers
   - In order for rice cultivation techniques to be disseminated, it is important to hold trainings for
     extension officers continuously. It is also recommended to conduct trainings between extension
     officers by themselves using training of trainers (ToT) and to continue RCTP trainings by the
     initiatives of IDA and EDA.
2. Effective use of RCTP and RCG materials
   - RCTP and RCG which were officially approved at the 5th JCC should be distributed to EDA
     nationwide for effective utilization.
3. Working condition of extension officers
   - It is recommended that IDA provide transportation mode, fuel costs for extension officers and
     salary/allowance in the right timing, which significantly contributes to enhancing motivations of
     extension officers.

Post-harvest
1. Sustainable operation and maintenance (O&M) of milling machines
   - It is recommended that four (4) milling machines provided by the Project should be effectively
     operated including budgetary management in sustainable manner. Towards their proper and
     sustainable operations, it is necessary to determine the roles of each stakeholder in the context of
     “food value chain (FVC)” comprising sequence of rice cultivation, pre- and post-harvest
     (including transportation), storage, distribution and marketing.

PDM
1. Concretization of Overall goal
   - Since the present Overall goal and its indicator are unclear of the target, it is recommended to be
     changed as follows. The sentences underlined are the corresponding parts of the
     recommendation.

   (Sentence to recommend)
   Overall goal:
   The yield of rice at the villages where the model sites are located in Bié and Huambo province is
   improved.

   Indicator:
   Grain yield is more than 2.0 ton/ha at individual farmland in the villages where model sites are
   located.

3-7 Lessons learned
1. Continuous efforts for better communication among stakeholders
   - The Project had challenges on sharing information among stakeholders to overcome a silo
     (vertical sectioning system). Various efforts have been introduced to enhance communication
     among stakeholders with use of TCC developed by the Project. This kind of efforts enabled to
     smoothen communication among IIA, IDA, SENSE and to establish Rice seed sub-committee.
2. Effectiveness of the Mid-Term Review
   • Prompt actions to recommendations by the Mid-Term Review were taken by the Project, and resulted in acceleration of the Project activities. The opportunities to monitor and to make recommendations towards improvement of project activities such as the Mid-Term Review are quite effective mechanism for project management.

3. External funding resources
   • The Project has been seeking the opportunities to use external funding resources such as the World Bank project in addition to the government budget. It is important to widen the possibilities of applicable funding resources for smooth implementation of the Project.

3-8 Follow up
   Nil