Country Name

conducted by Ghana Office: May 2019

Republic of Sierra Leo	one Sustainable Rice Development Troject in Sierra Leone (SRD1)		
I. Project Outline			
Background	Since the end of the civil war in 2002, the Sierra Leone economy has been on a recovery path and shown the real GDP growth rate of 5.5% in 2008. However, as the disparity between the rural and urban areas was also severely large, it has been difficult to complete the nation-wide restoration of the facilities and systems damaged by the civil war. While Sierra Leoneans were said to consume 104 kilograms of rice per capita as a staple food, its self-sufficiency rate, however, was less than 70%. Out of 640 thousand domestic rice farmers, 85 % of them were small-scale farmers owning only a land area of 1ha or less. The Kambia's economic and social development index such as a self-sufficiency rate of grain production and access to safe water was below the national average while 80% of the 280,000 residents were engaged in agriculture for a living. JICA thus implemented the "Agricultural Development Project in Kambia District" (2006-2009). Upon its completion, while the improvement of rice production techniques was achieved, it however was observed that promotion of a new mode of rice production that included processing, distribution, and establishment of an institutional structure for the dissemination of the technology still remained as challenges in addition to enhancing the capacity of MAFFS staff of Kambia District.		
Objectives of the Project	Through the establishment of rice production techniques and their extension method in Kambia District, the project aimed at an increase in rice production in the district, and thereby contributing to the adaptation of the techniques and the method throughout Sierra Leone.  1. Overall Goal:  1) To increase rice production in Kambia District  2) To apply the Technical Package on Rice Production (TP-R) and extension method all over Sierra Leone  2. Project Purpose: To establish rice production techniques and their extension method which are applicable		
Activities of the Project	throughout Sierra Leone.  1. Project site: Kambia District  2. Main activities: 1) Planning to implement the dissemination of TP-R through on-farm verifications, 2) Planning to extend the Farmers Field School (FFS) method and preparation of training materials, 3) Implementation and monitoring of extension activities of FFS test plots, 4) Training CP on TP-R and extension method and monitoring the utilization status of TP-R and extension method.  3. Inputs (to carry out above activities)  Japanese Side Sierra Leonean Side  1) Staff allocated: 33 persons  2) Trainees received: 12persons  2) Land and facilities: Space for project office (and running cost), land for the net-house equipment, laboratory equipment, a technical package for rice cultivation, rice seeds, fertilizer etc.		
Project Period	October 2010 – September 2014 Project Cost (ex-ante) 400 million yen, (actual) 553million yen		
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Sustainable Rice Development Project in Sierra Leone (SRDP)

#### II. Result of the Evaluation

<Constraints on Evaluation>

Cooperation Agency in

Implementing Agency

Japan

• Sierra Leone had suffered from Ebola outbreak until the World Health Organization (WHO) declared the country Ebola-free in March 2016. The situation was so severe that Sierra Leone government declared a state of emergency in July 2014 and called in troops to quarantine epicenters of Ebola. In addition to the national health crisis during the period, the United Nations (UN) stated its concern about the food security issue; up to 40% of farms have been abandoned in the worst Ebola-affected areas of Sierra Leone. As such, this event of state emergency makes the robust comparison impossible to adopt the rice production level of 2014 as the baseline value of the Overall Goal. Further, it is not appropriate to adopt even that of 2015 and 2016 considering the magnitude of the protracted incident. Thus, it is concluded that one of the overall goal indicators is unverifiable.

<Observation>

• It would be impossible to completely separate the SRDP's achievement from the subsequent "Sustainable Rice Production Project (SRPP)" (2017-2021), because activities of both projects are intricately interactive and interrelated. Therefore, this evaluation was conducted on the condition that the project's continuity and sustainability have been affected to a certain degree by SRPP.

### 1 Relevance

<Consistency with the Development Policy of Sierra Leone at the Time of Ex-Ante Evaluation and Project Completion>

Ministry of Agriculture, Forestry and Food Security (MAFFS)<sup>1</sup>

MAFFS Kambia District (MAFFS-K)

RECS International. Inc

NTC International Co. Ltd.

The project was consistent with the development policies of Sierra Leone; "the Second Poverty Reduction Strategy Paper", "Agenda for Change" (2007-2012) and "Agenda for Prosperity" (2013-2017) and "NSADP: National Sustainable Agriculture Development Plan"

<sup>&</sup>lt;sup>1</sup> After the inauguration of new president, athough the title of the ministry has been altered in 2018, the former title is, however, used in this report to avoid confusion.

(2010-2030). The plan addressed to increase agricultural productivity and competitiveness, particularly among the smallholder farmers. Also, the "SCP: Smallholder Commercialization Programme" (2010-2015); the five-year breakdown program under the NSADP has been a flagship program of MAFFS as well as the "National Rice Development Strategy" (2009-2018) that aimed to enhance the rice production in the country.

<Consistency with the Development Needs of Sierra Leone at the Time of Ex-Ante Evaluation and Project Completion >

The project was consistent with Sierra Leone's development needs as most of the rice producers in the country were smallholder farmers and the self-sufficiency rate remained less than 70%. Kambia district was chosen as a target area because, firstly, a vast majority of the residents were engaged in agriculture and over 90% of whom were cultivating rice. Secondly, Kambia's socio-economic development index such as a rate of grain self-sufficiency and access to safe water was below the national average, and thirdly, expertise and experiences accumulated through precedent projects can be capitalized. There was no change in the needs by the time of project completion.

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with the ODA Charter of Japan and the priority area announced in the course of the TICAD process. Based on the concept of human security and humanitarian support, it was to assist the socially vulnerable in the framework of rural community development. The priority is put on the improvement of the living conditions which satisfy basic needs and on the enhancement of the livelihood in the rural community<sup>2</sup>.

<Evaluation Result>

In light of the above, the relevance of the project is high.

# 2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of Project Completion>

The Project Purpose was partially achieved by the project completion. The TP-R and the extension method were not officially endorsed by MAFFS by the project completion (Indicator 1). On the other hand, 80% of MAFFS officials who received training in each district confirmed the effectiveness of the TP-R (Indicator 2). This is based on a result of a post-training questionnaire conducted at the end of the TP-R training which included the inspection of rice fields, provided to 102 officers of district offices, in which 99% of the officers affirmed the effectiveness of the TP-R.

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have partially been continued after the project completion because at district level TP-R has been recognized as *de facto* standard technique and utilized in farmers' training, although at the central level, the budget has not been allocated for TP-R related activity partly due to the turbulence caused by Ebola outbreak. In relation to indicator 1, to date, the TP-R has not yet been officially endorsed by MAFFS (Indicator 1), because the socio-economic situation was disrupted due to the Ebola outbreak at the end of the project. However, the government fiscal condition has been restored since 2017 and the extension of the TP-R has been given priority again by MAFFS Moreover, current PRSP is also making efforts to the endorsement, therefore, there is a prospect for the TP-R being officially endorsed in near future. In relation to indicator 2, on the other hand, TP-R is recognized as *de facto* standard technique and widely utilized among extension related staff<sup>3</sup> attributed to the training provided to Frontline Extension Workers (FEWs) as Ebola emergency package, which is referred in the later part in this report. After the completion of project, although MAFFS has not been able to earmark any budget for the 'training of trainers' (TOT) for extension workers, it has been confirmed that MAFFS-K had highly evaluated the technique and conducted TP-R training for FEWs (120 farmers from 4 Farmer Based Organizations (FBOs) in 2015, 126 farmers from 5 FBOs in 2016, 120 farmers from 4 FBOs in 2017) with the use of external financial resources. SRPP, the succeeding project has been implementing dissemination activities in four districts, namely Kambia, Bombali, Port Loko and Karene<sup>4</sup>. SRPP has already disseminated TP-R to 15 FBOs (approximately 450 farmers) and the project plans to disseminate the technique up to total 100 FBOs (approximately 3,000 farmers) only in target districts during 5 year project period.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

Overall goal has been partially achieved. As mentioned in "constraints in evaluation", it is not appropriate to take 2014's rice yield data as a baseline in order to measure project impact because it was the year when Ebola-hit Sierra Leone at full strength and affected negatively agricultural activities. The same can be assumed with 2015's and 2016's data. Therefore, indicator 1 is unverifiable. As for the indicator 2, the number of farmers who learned improved TP-R by FEWs through extension system, it has been achieved. As has been mentioned above, Ebola broke out in Sierra Leone at the completion of the project. In 2015, as a part of Ebola Recovery Assistance Package, JICA implemented Follow-Up project by supporting TP-R training to 260 FEWs (20 from each district) and farmers in all districts in Sierra Leone. This Follow-Up project adopted the method in which it supported financially BES and SMS, who have been equipped with TP-R during the project, to provide on-site training to their subordinate FEWs in their own district, instead of bringing together FEWs from all districts in one place and provide training to all. At first, the project selected 10-20 FBOs in the Inland Valley Swamp (IVS) area in every district throughout Sierra Leone and installed demonstration field (1ha) in every selected 260 FBO. Secondly, BES and SMS of each district provided to FEWs TOT in the demonstration field. Finally, newly-trained FEWs put what they learned in practice immediately by providing FFS to farmers on the same site<sup>5</sup>. The project completion report of the Follow-Up project confirms that total beneficiary of the FU project is 8,124 farmers from 240 FBO in indicator 2's targeted area, which is all districts except for Kambia district. Currently, a plan for the further extension of the technology to areas other than the original four target districts in the northern region is well underway in SRPP. Approximately a hundred of MAFFS staff: Block Extension Supervisors (BES), Subject Matter Specialists (SMS) who are summoned across the country except for the target districts and trained MAFFS staff are assumed to subsequently disseminate the technology to FEWs upon their return to each district in the scheme. It is expected to bring about a considerable impact.

<sup>&</sup>lt;sup>2</sup> Ministry of Foreign Affairs (MOFA), ODA Databook (JP) 2010, p. 507.

<sup>&</sup>lt;sup>3</sup> Extension related MAFFS staff means MAFFS staff in charge of extension activity who are assigned to district level such as SMS, BES and FEW.

<sup>&</sup>lt;sup>4</sup> Although SRPP originally covered 3 districts as target area (Kambia, Bombali and Port Loko), in response to local governance reform in 2018, the target area included newly created Karene district. Thus SRPP currently covers 4 districts (Kambia, Bombali, Port Loko and Karene)

<sup>&</sup>lt;sup>5</sup> This FU project has been implemented in partnership with World Bank (WB). WB distributed total 33.8 Mt of improved seeds to 520 FBOs. JICA provided TP-R training in addition to distribution of total 143 Mt fertilizer to 260 FBOs, which are chosen from WB supported 520 FBOs.

<sup>&</sup>lt;sup>6</sup> This FU project targeted 260 FBOs throughout Sierra Leone. On the other hand, as the geographical scope of the indicator 2 is limited to all districts other than Kambia, these numbers discount those of Kambia.

<Other Impacts at the time of Ex-post Evaluation>

No positive and negative impact was confirmed.

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is fair.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results
(Project Purpose)	(Indicator 1) TP-R and extension method	Status of the Achievement: not achieved (not achieved)
To establish rice	are officially endorsed by MAFFS	(Project Completion)
production techniques and	1	·Although a forum was held to share the project outputs and experiences of the
their extension method,		Project and most participants expressed their support for the revised TP-R as
which are applicable		standard rice cultivation techniques to be disseminated by the MAFFS, the TP-R
throughout Sierra Leone		had not been officially endorsed as a package of standard techniques.
		(Ex-post Evaluation)
		It is confirmed that the TP-R has not been endorsed as an official technique by
	(Indicator 2) 80% of MAFFS officials who	the MAFFS.
	received training in each district confirm the	[,,,,,
	effectiveness of the TP-R and its extension	(Troject Completion)
	methods	• Training session on the TP-R which included the inspection of rice fields was
		provided to officers of the MAFFS district offices. As a result, 99% of the
		trainees acknowledged the effectiveness of the TP-R. (Ex-post Evaluation)
		• After the Project, the MAFFS has not been able to earmark the budget to
		implement TOT for extension workers due to socio-economic turbulence
		that Ebola outbreak caused.
		TP-R has become <i>de facto</i> standard technique among extension related staff
		as TOT was conducted to 260 FEWs by JICA funding.
		The succeeding project has been implementing further dissemination activity
		in districts other than Kambia.
		in districts other than reamon.
(Overall Goal)	(Indicator 1)	(Ex-post Evaluation) Not verified.
(1) To increase rice	Rice production is increased by 30% in the	
production in Kambia	Kambia District compared with rice	
District	production in 2014	
	(Indicator 2)	(Ex-post Evaluation) achieved
	Extension workers of the district	<the and="" farmers="" fbos="" learned="" maffs's<="" number="" of="" p="" the="" through="" tp-r="" who=""></the>
(2) To apply the Technical	agricultural offices in the country other than	TP-R extension activity by district>  Year Western Western Tural Tonkolili Pujehun
Package on Rice	Kambia District disseminate the revised	urban western rural Tonkonn Pujenun
Production (TP-R) and	TP-R using extension method developed	
extension method all over	under the Project to farmers more than	2015 0 FBOs 10 FBOs 24 FBOs 16 FBOs (0farmers) (400farmers) (1,565farmers) (452farmers)
Sierra Leone	10,000 persons by the end of 2018	(0farmers) (400farmers) (1,565farmers) (452farmers)
		Year Port Loko Moyamba Kono Koinadugu
		2015 24 FBOs 16 FBOs 20 FBOs 16 FBOs
	l l	(670farmers) (507famers) (790farmers) (442farmers)
		Year Kenema Kailahun Bonthe Bombali Bo
		2015   24 FBOs   24 FBOs   16 FBO   24 FBOs   26 FBOs
		(780 farmers) (767 farmers) (467 farmers) (593 farmers) (691 farmers)
		Total: 240 FBOs, 8,124 farmers
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Source: Interview with MAFFS, MAFFS-K, RARC, and ex-counterpart of SRDP, Archive of JICA Sierra Leone Field Office

# 3 Efficiency

Although the project period was as planned (ratio against the plan: 100%), the project cost exceeded the plan (ratio against the plan: 138%). The outputs were produced as planned. Therefore, the efficiency of the Project is fair.

#### 4 Sustainability

#### <Policy Aspect>

Promotion of agricultural productivity has remained one of the major thrusts of the national development policy. The sector development policy such as NSADP (2010-2030) has still been valid. Also, the SCP (2010-2015) the five-year breakdown program under NSADP has been a flagship program of MAFFS as well as the "National Rice Development Strategy" (2009-2018) that has remained to address the promotion of rice production. Moreover, as a response to the Ebola outbreak and its recovery, the Government of Sierra Leone has endorsed World Bank funded the "WAAPP: West Africa Productivity Programme" (2016-2020), 7 "SCADeP: Smallholder

<sup>&</sup>lt;sup>7</sup> The development objective of WAAPP is to generate and disseminate improved technologies in the participating country's top priority commodity sub-sector that are aligned with regional priorities as outlined in the ECOWAS (Economic Community of West African States).

Commercialization and Agribusiness Development Project" (2016-2020)<sup>8</sup> and "Sierra Leone Agro-Processing Competitiveness Project" (2018-2023)<sup>9</sup>. As above, improvement of agricultural productivity, higher-value-added agricultural products, self-sufficiency on food and expansion of export of agricultural products have been consistently Sierra Leone's government policy.

<Institutional Aspect>

The roles and responsibility of MAFFS, MAFFS-K, and Rokupr Agricultural Research Center (RARC) have not been changed. MAFFS has been responsible for the formulation of agricultural development policies and advisory function for policy-makers on the agricultural sector in general and RARC has been assigned as a research and development institute for the promotion of rice productivity in particular. MAFFS-K, however, has had a specific role to play in terms of TP-R related activities. It has assigned 3 positions in a reporting line to familiarize farmers with the adapted technologies; SMS to provide technical advice and orientation on the specific subject matter, BES to supervise FEW, and FEW to implement extension activities for farmers. According to the survey results, MAFFS-K currently has 6 SMSs, 2 BESs, and 6 FEWs, and they perceived that BES and FEW are understaffed as there should be required 6 and 32 additional personnel respectively. Under a severe budgetary constraint, for example, in MAFFS-K local 15 volunteers are engaged provisionally in extension work as FEW with minimum allowance payment.

<Technical Aspect>

According to the survey results, training for FEW has not been conducted on a regular basis except for one TP-R training provided for 25 newly recruited FEW and volunteers in 2016 in Kambia District. Although the MAFFS did not conduct any training officially, there is a possibility that some training was carried out at the district level by their own efforts. However, there was a concern as to whether the staff of the MAFFS retained the necessary skill set required in terms of the effective application of the TP-R. it was reported that not all FEW could have understood the TP-R clearly enough to disseminate correctly to farmers. Most of them need refresher training to consolidate each acquired knowledge base. As above, there was a record of relevant activities at the level of FBOs in Kambia District, however, it turned out that there has been almost no training on the TP-R for staff on regular basis both in Kambia and the other districts although its implementation was planned at the time of terminal evaluation. The succeeding project which started in 2017, SRPP, adopted an elaborate method in which Kambia district's FEWs, capacitated in SRDP, provide TOT to FEWs of target district then newly-trained FEWs, organize FFS to farmers on the site. The project-developed TP-R dissemination method consists of 11 FFS for one cultivation cycle. In SRPP, trained FEWs are required to conduct all 11 FFS to local farmers by themselves under the supervision of the project team with the aim of making sure that FEWs get a complete grasp of the technique.

Despite the promotion of agricultural productivity has been placed as one of the national priorities, there has been no budget specifically earmarked for the TP-R in the central government. In relation to 2014, 2015, there has not been any budget for extension activity because originally allocated budget for extension activity has been diverted for Ebola emergency countermeasure<sup>10</sup> in urgent response to Ebola outbreak. After the Ebola epidemic subsided in 2016, Sierra Leone's socio-economy has come back to normal. Since 2017, the budget for extension activity has been allocated. In 2017, for example, MAFFS-K received the sum of 24.9 million Sierra Leone (approximately 3,500USD) for general extension activities, but not exclusively for the TP-R. In spite of severe budgetary constraints, MAFFS-K has executed TP-R dissemination training for farmers on its own initiative with the use of external resources (NGO's support). (120 farmers from 4 FBOs in 2015, 126 farmers from 5 FBOs in 2016, 120 farmers from 4 FBOs in 2017) The succeeding project, SRPP, has been conducting Inland Valley Swamp (IVS) development and TP-R dissemination activity partially funded through a partnership with WFP. The newly elected government, inaugurated in 2018, adopted an agriculture-driven development strategy by attaching high priority to the agriculture sector. The new government committed to allocating 10 % of the total national budget for agriculture in 2 years. In fact, the budget for MAFFS significantly increased in 2019 and extension department plans to earmark some budget specifically for TP-R dissemination. As above, financial sustainability for dissemination activity is secured to some degree, considering the prospect of an increase in MAFFS budget.

<Evaluation Result>

Therefore the sustainability of the effects of the Project is fair.

# 5 Summary of the Evaluation

The project partially achieved the Project Purpose and the Overall Goal. As for sustainability, although the budget has not been sufficiently secured for TP-R related training and extension activity due to Ebola epidemic, the evidence indicates that certain MAFFS district office managed to conduct TOT to FEWs on its own initiative. In the succeeding project, activities for nation-wide dissemination of TP-R has been continuously conducted and the measures to diversify financial resources, such as a partnership with donner agency, have already been taken. There is a prospect for securing resources for TP-R related extension activity, considering the fact that new government pledged budget increase for MAFFS and that MAFFS plans to earmark resources specifically for TP-R extension activity. As for efficiency, the project cost exceeded the plan. Considering all of the above points, this project is evaluated to be partially satisfactory.

### III. Recommendations & Lessons Learned

<sup>&</sup>lt;sup>8</sup> World Bank and UK funded five years program that seeks to promote agricultural productivity through improved access to markets, improved access to finance as well as development of inclusive smallholder agribusiness linkages in the targeted project areas of Sierra Leone.

<sup>&</sup>lt;sup>9</sup> This World Bank funded programme aims to strengthen the agro-processing industry by providing soft loans to improve the business environment.

<sup>&</sup>lt;sup>10</sup> According to the interview from MAFFS-K, MAFFS budget for extension activity has been diverted and spent for procurement of sanitary goods such as buckets, soaps, hand sanitizers

#### Recommendations for Implementing Agency:

- (1) There is an ongoing JICA's succeeding project, SRPP which aims to disseminate the TP-R to all districts in Sierra Leone. The project provisionally covers expenses for the training of trainers (TOT). However, it is anticipated that once this project ends, there will be no budget allocated by the government of Sierra Leone to conduct the training to sustain the effects further. Thus, it is important to plan, before completion of the project, how to secure the budget for dissemination in the post-project. As the central government, MAFFS has a principal role to allocate funds to its district offices, thus, MAFFS is recommended to secure and allocate sufficient budget to implement systematic and regular training to extension workers. If difficult as ever, each District Council is encouraged to seek a way to finance it through its own revenue in parallel as each district is now given leeway and autonomy to collect taxes and increase its own revenue so as not to be over-dependent on the central government
- (2) Since TP-R is a tested and proven set of techniques that is to ensure higher productivity, some development partners would be interested in its application if MAFFS extension division appeals to them. If the national budget is too tight to raise the funds for the TP-R extension activities, it is recommended that the Government of Sierra Leone would consider the possibility to secure it from concerned donor agencies.

#### Lessons Learned for JICA:

- (1) Originally, the TOT was planned to be implemented by the Government of Sierra Leone. However, as a part of Ebola Recovery Assistance Package, JICA implemented the TOT for FEW and bore the expenses instead. Thanks to the TOT, the TP-R has eventually become widely known in MAFFS as a standard for rice production in IVS. It might be rather effective as a measure if the project includes the TOT component in its original scope, especially in those countries chronically suffering from a budget deficit like Sierra Leone, where the difficulty in securing resource for post-project activity is highly likely.
- (2) This project produced the expected outcome in the project period and received a high evaluation in the terminal evaluation. However, it has faced challenges in sustaining activity due to budgetary constraints exacerbated by the external shock e.g. the Ebola. The underlying cause for it is the fact that the public extension system has not been functional due to chronic financial and human resource constraints. Without coping with these challenges, post-project sustainability cannot be ensured. It is crucial that these issues should be tackled in the project.
- (3) It would be difficult to find a way to finance recurrent cost such as staff salary as a project component because it is permanent expense by nature. However, it might be possible to find development partners interested in funding TOT or extension activity. Therefore, it would be an effective measure for resource-constrained countries like Sierra Leone to establish partnerships with other bilateral and/or multilateral donors as a part of project activity to secure the post-project budget.
- (4) In relation to the implementation process, the involvement of MAFFS Extension Department, which is in charge of supervision of extension activities in all districts, has been weak. It is essential in order to ensure sustainability that identifying an adequate and capable counterpart organization in MAFFS headquarter and empowering it during the project period so that it can succeed the project team's activities after project completion.



Extension Worker disseminating the TP-R to farmers in Farmer Field School.



Extension worker disseminating the TP-R to farmers in Farmer Field School.