1. Outline of the Mid-Term Review

1-1. Objectives of the Mid-Term Review

The objectives of the Mid-term Review are as follows:

- (1) To visit the sites of the Technical Assistance Support to Sustainable Irrigated Agricultural Development Project (hereinafter referred to as "the Project"), to review its activities and progress.
- (2) To make comments and advice on the plan of activities based on the results of the Review.
- (3) To prepare revised Project Design Matrix (hereinafter referred to as "the PDM") in order to properly monitor the progress and activities of the Project, if necessary.
- (4) To participate in the Joint Coordinating Committee (hereinafter referred to as "the JCC") in order to present and discuss the result of the review with the Ugandan authorities concerned.

1-2. Schedule of the Mid-Term Review

The Mid-term Review was undertaken from 18 January to 5 February, 2010. The detailed schedule of activities is attached as Annex 1.

1-3. Members of the Mid-Term Review Team

The Mid-term Review was conducted by the Mid-Term Review Team (hereinafter referred to as "the Team"), composed of the following Japanese and Ugandan team members:

(Japanese Side)

1. Mr. Motofumi Kohara	Team Leader	Director General, Rural Development Department, Japan International Cooperation Agency
2. Mr. Motonori Tomitaka	Agricultural Extension / Irrigated Agriculture	Senior Advisor, Japan International Cooperation Agency
3. Mr. Tatsuki Noda	Cooperation Planning	Program Officer, Eastern and Southern Africa Division, Rural Development Department, Japan International Cooperation Agency
3. Ms. Keiko Itagaki	Evaluation Analysis	Researcher, Global Link Management, Inc.

(Ugandan Side)

1. Mr. Benom Byamugisha Senior Economist,

Agricultural Planning and Development Department, Ministry of Agriculture, Animal Industry and Fisheries

1-4. Method of the Mid-Term Review

The Project was reviewed both by the Japanese and Ugandan sides based on the PDM of the Project. The PDM is a summary table of the overall description of the Project with its objectives, activities and environments.

Both sides confirmed the progress and achievements of the Project in terms of its purpose, outputs, activities and inputs stated in the PDM through document review, interviews to the Project personnel and beneficiary farmers, field visits and observations. Both sides analyzed the findings based on the five criteria, namely, Relevance, Effectiveness, Efficiency, Impact, and Sustainability. The descriptions of these criteria are given below:

1) Relevance	The relevance is a measure for determining whether the outputs, the purpose and the overall goal of the Project are still in line with the priority needs and concerns at the time of Review.
2) Effectiveness	The effectiveness is concerned with the extent to which the purpose of the Project has been achieved, or is expected to be achieved, in relation to the outputs produced by the Project.
3) Efficiency	The efficiency is a measure for productivity of the implementation process: how efficiently the various inputs are converted into the outputs.
4) Impact	The impact is any intended or unintended, direct or indirect, positive or negative change that has been brought about as a result of the Project.
5) Sustainability	The sustainability is a measure for determining whether or not the outcomes of the Project are likely to continue after the Project comes to an end.

2. Outline of the Project

2-1. Background of the Project

Agriculture is a key industry of Uganda. It contributes to 43% of the GDP and 85% of export earning, and employs 80% of the labor force¹. Majority of farmers are smallholders, having the land about 2 ha on average to run subsistence farming by traditional methods.

The promotion of agriculture is considered in "Poverty Eradication Action Plan (PEAP)" as one of the most important fields for the development of the country. The strategy to promote its agriculture i.e. the Plan for Modernization of Agriculture (PMA), points out following four issues to be its main objectives:

- (1) Improvement of the income and the living standard of the poor farmers,
- (2) Food security at the household level,

(3) Creation of employment in the agricultural related fields, and

(4) Continuous usage and management of natural resources.

In the Eastern Region, there are many wetlands, and paddy rice is popularly cultivated (approx. 20,000 km² and by 4,200,000 populations). However, the productivity is still low, because smallholders do not have enough level of rice cultivation techniques and extension system to support them are not fully developed yet.

In this circumstance, the Government of Uganda (GoU) requested the Government of Japan (GoJ) to conduct a necessary investigation on irrigation agriculture development which targets paddy rice cultivation in 10 Districts in the Eastern Region. Then, GoJ implemented the "Development Study on Poverty

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¹ GoU, <u>Plan of Modernization of Agriculture: Eradicating the Poverty in Uganda</u>

Eradication through Sustainable Irrigation Project in Eastern Uganda" for three and half years from October 2003. Development Plan focusing sustainability and having long-term view at macro level to establish irrigation agriculture, and Action Plan to practice Pilot Projects expecting visible effects at site level, were drafted and transferred irrigation and paddy rice skills to counterparts and farmers group in 4 Pilot Projects, through verification trials in the Study.

With appreciation on the outcomes of this Study, GoU requested GoJ to implement a new Technical Cooperation Project in line with paddy rice promotion system in Eastern Uganda. In response, GoJ dispatched the Preparatory Study Team to discuss the framework of the Project and it was officially agreed between JICA and the Ugandan authorities concerned with the signing of the Record of Discussions on April 28, 2008. The Project started on June 11, 2008 and will be ended on June 30, 2011.

2-2. Summary of the Project

The grand design of the Project is drawn in the current version of the PDM (attached as Annex 2), which was prepared by the Preparatory Study Team in April 2008. Its summary is as follows.

Overall Goal

Increased production of rice in the targeted Districts contributes to achievement of self-sufficiency of rice in the Republic of Uganda.

Project Purpose

Production and productivity of rice are increased through introduction of sustainable irrigated agriculture techniques in the Project Sites in the targeted Districts.

1. Capacity of concerned personnel, necessary for training and extension of irrigated rice production in the targeted Districts, is developed.

2. Irrigated rice cultivation techniques are promoted among smallholders and their community based groups in the Project Sites.

Table 2-1: Summary of the Project

2-3. Duration of the Project

Three (3) years from June 2008 to June 2011.

2-4. Implementing Agencies of the Project

Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).

2-5. Target Area of the Project

Twenty-two (22) Districts in the Eastern Region of Uganda.

2-6. Target Groups of the Project

Smallholders and relevant government personnel in the Districts in the target area.

3. Achievements and Implementation Processes

During the Mid-term Review (hereinafter referred to as "the Review"), the performance of the Project including inputs and outputs, as well as the implementation processes, were reviewed to assess the degree

of achievements, the results of which are described in the following:

3-1. Achievements of the Project

3-1-1 Inputs

The Team has confirmed that the Project has availed the following inputs along with the plan stated in the PDM and the Plan of Operations (PO) (attached as Annex 3).

[Japanese side]

1) Dispatch of experts to Uganda

A total of seven (7) experts in the following fields of expertise have so far been dispatched to the Project. The details of the Japanese experts are as shown in the following Table 3-1.

Sl. Field of Expertise From Name To 2008.8.1 2008.10.26 1 NISHIMAKI Ryuzo Chief Adviser 2009.1.6 2009.6.20 2 ITO Yukinori Project Coordinator/Training 2008.6.11 2010.6.10 3 ANDO Takamasa Farming/Extension 2008.10.3 2011.6.30 4 SUGAI Jun Livelihood Improvement/Project Management 2009.9.7 2011.6.30 2008.8.3 2009.3.16 5 KOBAYASHI Toshimasa Irrigation Engineering 2009.10.12 2010.3.7 6 ISHIZAKI yoshiyuki Farmer's Economic Survey 2009.1.13 2009.3.13 2009.7.2 2009.11.27 7 KURITA Zetsugaku Rice Cultivation 2010.1.18 2010.5.17

Table 3-1: List of Japanese Experts

Source: Documents prepared by the Project for the period up to the end of January 2009.

2) Provision of machinery and equipment

Machinery and equipment of a total value equivalent to 170,912 U.S. Dollars have so far been provided for the Project activities. The details of the machinery and equipment are shown in Annex 4.

3) Training of counterpart personnel in Japan and the third countries

So far, seven (7) counterpart personnel were dispatched to Japan and three (3) to Egypt for training on the subjects relevant to the scope of the Project, such as "On farm water management" and "Improvement and Modification of Agricultural Machinery for Africa" and so forth. The details of the training attended by the counterpart personnel are found in Annex 5.

4) Bearing of local costs

A total amount of 441,678,144 Ugandan Shilling has been provided to supplement a portion of operational expenses for the Project activities by the end of September 2009, as indicated in the following Table 3-2.

Table 3-2: Local Expenses borne by the Japanese Side (Ugandan Shillings)

FY (*1)	2008	2009 (*2)	Total
Local Expenses	358,732,944	82,945,200	441,678,144

^(*1) Figures are based on the Japanese Fiscal Year (April – March).

Source: Documents prepared by the Project

[Ugandan side]

1) Appointment of counterpart personnel

There have so far been two (2) counterpart personnel assigned to the Project from MAAIF, including the Project Coordinator. From each of the twenty-two (22) Districts in the target area, the District Agricultural Officer and three (3) Agricultural / Assistant Agricultural Officers are to be assigned as the counterpart personnel to the Project, who are to participate mainly in the field activities of the Project in their respective Districts.

2) Provision of facilities and operational costs

The necessary office spaces with office equipment, water and electricity have been provided for the Project Office at MAAIF. Mbale District government has provided land for the Liaison Office in Mbale within the compound in Mbale District Production Office and borne costs for water and electricity for the Liaison Office. It should also be noted that MAAIF have recently obtained the Counterpart Fund and allocated about 2,500,000 Ugandan Shillings for the Project's workshop held in December 2009.

3-1-2 Achievements of the Outputs

The Project has implemented its activities as per the plan stipulated in the PDM and PO with slight modifications, which are considered appropriate. It has been confirmed that the Project has been implemented without notable delays and could manage to cope up with any unprecedented difficulties encountered in the process. It is thus generally assumed that the Project would come up with both of its expected outputs by the end of the cooperation period. The Team examined the degree of achievement of the outputs so far as follows:

Output 1: Capacity of concerned personnel, necessary for training and extension of irrigated rice production in the targeted Districts, is developed.

Activities and Achievements:

The Project has developed a group training program for District Agricultural Officers (DAOs), Agricultural Officers (AOs), Assistant Agricultural Officers (AAOs), other relevant stakeholders engaged in supporting the farmers (hereinafter referred collectively to as "DAOs"), as well as the famer representatives, i.e. called as Key Farmers (KFs), selected from the Project Sites. The sample of the group training program is shown in Annex 6.

A textbook for the training entitled as "Lowland Rice Cultivation Guide" (hereinafter referred to as "the Guide") has been prepared and used both in the group and field training activities. The Project has

^(*2) Figures are based on the accounts settled by the end of September 2009.

continuously been reviewing the contents of the Guide with feedback from the DAOs and farmers in the Project Sites for possible future modification to make them suitable to the specific conditions of different localities.

The Project has so far conducted the group training for seven (7) times, covering 82 personnel from fourteen (14) Districts. The details of the group training conducted are shown in Annex 7. After the group training, these trained personnel have been encouraged to carry out extension activities for smallholders on irrigated rice cultivation. The trained DAOs in charge of the sub-counties where the Project Sites were set up have implemented the field training for smallholders in the Project Sites as their on-the-job training (OJT) together with the KFs under close supervision of the Project.

The direct involvement of the Project has so far been concentrated on the activities in the Project Sites. Therefore it is necessary to further encourage and monitor the dissemination activities by the trained DAOs, especially by the DAOs other than the ones working in the sub-counties where the Project Sites have been set up, in order to fully achieve the Output 1. The development of the capacities of the DAOs for further promotion of irrigated rice cultivation by the smallholders.

Output 2: Irrigated rice cultivation techniques are promoted among smallholders and their community based groups in the Project Sites.

Activities and Achievements:

Due to the limitation of human resources, the Project has grouped the target Districts into three (3) groups to conduct field training activities as shown in the Table 3-3 below.

Group Districts Schedule Budaka, Bududa, Bugiri, Bukedea, Busia, Butaleja, Kumi, Manafwa, December 2008 -A Mayuge, Mbale (10 Districts) Amuria, Jinja, Kaberamaido, Pallisa, Soroti, Tororo (6 Districts) В August 2009 -January 2010 -C Iganga, Kaliro, Kamuli, Katakwi, Namutumba, Sironko (6 Districts)

Table 3-3: Grouping of target Districts per schedules of field training

Source: Document prepared by the Project

By the time of the Review, the Project has trained 52 KFs from 14 Districts through the 7 group training mentioned above. After the group training, the training plots were set up in the Project Sites in nine (9) Districts in Group A, where the field training programs for groups of smallholders were conducted and completed their production cycles. The field training is to be conducted for an entire cropping season to demonstrate the basic rice cultivation techniques along with the four stages of rice production, i.e. land preparation, nursery and seedling preparation, transplanting, and harvesting.

As for the initial Project Sites in the Districts in Group A, the Project faced some problems related to the water shortages in a few Project Sites². However, in the Project Sites where the results of the field training were positive, the smallholders were eager to continue the application of learned techniques. It

² The training plots in three (3) Districts in Group A, namely Bududa, Busia and Butaleja, were affected by unfavorable water conditions and climatic problem, and field training was suspended in the middle of the cropping season. Also, water was not available at the site initially selected in Kumi District for the first season.

has been reported during the interviews by the Team that the trained farmers have realized the benefits of new techniques, such as less seed requirements, reduction of weeding labor, and considerable increase of the yields. The interviewed farmers also shared with the Team that other farmers in the vicinity or even from other communities have become interested in and started similar rice cultivation practices.

Currently, field training activities have been initiated in one (1) PS and additional two (2) Project Sites in the Districts in Group A³ and five (5) new Project Sites in the Districts in Group B. The average number of the participants in all of the sessions of field training completed per PS in Group A ranges from 6 to 21 persons, and the total number of farmers based on the average attendance in different sessions so far undertaken has reached to 232 persons, as shown in Annex 8. Details and the performances of the training plots in the Project Sites are also shown in Annex 9.

3-1-3 Prospects to Achieve the Project Purpose

Project Purpose: Production and productivity of rice are increased through introduction of sustainable irrigated agriculture techniques in the Project Sites in the targeted Districts.

It is still too early to precisely assess the prospect of achievement of the Project Purpose at this stage, as the Project has covered only a part of the 22 target Districts and there should be more activities to be implemented in the later half of the cooperation period. Nevertheless, it is generally assumed that the prospect of achieving the Project Purpose is fairly high, based on the following observations:

As for the productivity, the data have so far been derived from six (6) Project Sites in the Districts in Group A as shown in the following Table 3-4. It is considered that the yield performances are fairly satisfactory, compared to the baseline survey data.

Table 3-4: Comparison of Yields at Training Plots

District	Variety	Yield (t/ha) 2009	Yield (t/ha) at baseline	
Budaka	K85	2.4	n.a.	
Bugiri	K85	4.7 - 5.6	4.0 - 5.0	
Bukedea	K85	5.5	2.5	
Mbale	K85	2.8 - 7.6	0.75 - 1.75	
Manafwa	K98	3.7 - 6.9	1.6 - 2.4	
Mayuge	K85	4.0 - 4.9	1.6	

Source: Document prepared by the Project

In the interviews, the participating farmers also shared with the Team with that there has been considerable increase of the rice yields. It is thus anticipated that the increase in the productivity of rice would quite likely to be realized.

As for the increase of rice production, no data was available at the time of the Review. However, it was reported by the interviewed smallholders that farmers in the Project Sites have expanded areas planted with rice with application of new techniques and that the other farmers have started similar undertakings

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³ One new PS in Kumi District and additional two (2) Project Sites in Mbale and Bukedea were set up to augment the dissemination effects of the failed Project Sites in Bududa, Busia and Butaleja.

within the communities. The Team also observed during the field visits that the rice cultivation techniques introduced by the Project have been spreading over to the neighboring farmlands. It is thus generally expected that the production increase would also be attained by the end of the cooperation period, which, however, the Project should carefully monitor and grasp with objective data and information.

3-2. Implementation Processes of the Project

(1) Decision making mechanism

The Joint Coordinating Committee (JCC) is the decision-making authority of the Project, which is to confirm the progress of Project activities and the activity plans for the upcoming period, and to discuss other issues related to the Project implementation. The first JCC meeting was held at the commencement of the Project in July 2008 to provide initial orientation to the stakeholders and to confirm the Project plan. Another JCC meeting is scheduled to be held at the time of the Review in order to review the implementation processes so far.

(2) Coordination and communication among the Project personnel

As for the issues related to day-to-day operations, the Project has organized regular meetings; weekly meetings have been held in the Project Office in MAAIF among the MAAIF counterpart personnel and Japanese experts stationed in MAAIF, as well as in Liaison Office in Mbale among the Project personnel stationed in Mbale, including the short-term experts and hired staff. The Project originally planned to organize monthly meetings in Mbale to be attended by all Japanese experts, MAAIF counterpart personnel and some counterpart personnel from the Districts, which have hardly been held due to the difficulties in arranging the common schedules once the field training activities had started in various places. As the results, there have been insufficiencies in terms of timely and thorough sharing on the progress of activities, useful insights derived from the field training in each PS, and other issues related to the implementation of the Project activities in the target area among the Project personnel as a team. It is somewhat inevitable for the Project to suffer from these disadvantages, because the Project personnel are stationed in scattered locations, i.e. Project Office at MAAIF, National Crop Resource Research Institute (NaCRRI), Liaison Office in Mbale and respective Districts, let alone the coverage area is as wide as 22 Districts. It is however necessary for the Project personnel to cautiously try to share information relevant to the activities of the Project among the entire team so as to ensure the smooth implementation of various activities to be undertaken in the later half of the cooperation period.

4. Results of the Review

4-1. Results of the Review based on the Five Criteria

Through the Review, the relevance, effectiveness, efficiency, impact and sustainability of the Project are assessed, the major findings of which are described below.

4-1-1 Relevance

The relevance of the Project is evaluated as high based on the following confirmation:

(1) Relevance to the development policies and sector programs of GoU

After the expiration of the PEAP in 2008, GoU has currently been formulating the new policy framework. The upcoming National Development Plan (NDP: 2010-2014) regards the agriculture as one of the primary sectors, envisioning the restructuring and modernizing the agricultural sector with productivity enhancement. Similarly, the new Development Strategy and Investment Plan (DSIP) of MAAIF for the period from 2010/11 to 2014/15 also highlights "enhancing production and productivity" as the first of its four program areas, with eight (8) sub-programs, including among others improved agricultural technologies, better delivery of advisory services, increased use of water for agriculture, enhanced productivity of land through sustainable management of soil and water resources, which are relevant to the scope of the Project. Furthermore, MAAIF has formulated the Uganda National Rice Development Strategy (UNRDS) in 2009, which sets ambitious targets to double the cultivation area (from 110,000 to 240,000 ha) and to nearly triple the production (from 251,000 to 728,000 ton) of rice over ten (10) year period from 2009/10 to 2017/18⁴. Various measures are planned in the UNRDS, such as technology dissemination and capacity building in rice sub-sector, improvement and increase of sustainable water use and management in rice production, and so forth. The Project is thus considered to be still consistent with the policy directions of GoU.

(2) Consistency with the ODA policies of GoJ

Agricultural development is set as one of the four priority areas of the Japanese ODA policy for the Republic of Uganda, and the Country Program of JICA for Uganda stipulates its emphasis on the support to modernization of agricultural sector with three programs, i.e. rice promotion, livestock development, and enhancement of local industries and enterprises. The Project is regarded as one of the centerpieces of the rice promotion program. Moreover, GoJ has announced its official commitment to support the initiatives to increase the rice production in Africa, i.e. one of the agenda agreed upon at the Fourth Tokyo International Conference on African Development (TICAD IV) in 2008, and has taken active lead in the Coalition of African Rice Development (CARD). From these viewpoints, the Project is evaluated to be quite well in line with the Japanese aid policies.

(3) Relevance to the needs of target beneficiaries

The current rice cultivation techniques of the ordinally smallholders in the target area are generally observed as extensive, without application of proper rice cultivation techniques. Most of the smallholder have not been exposed to the improved practices, resulting in their rice productivity to remain low. Likely, the DAOs had not given much opportunities to learn about rice cultivation techniques since rice has been relatively new crop in Uganda, even in the Eastern Region where rice is grown in more areas than in other Resions. In such context, the farmers and relevant District personnel have highly appreciated the introduction of new techniques by the Project, as the importance of rice as a

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⁴ The figures are cited from the 2nd Draft of UNRDS (May 2009)

cash crop has recently been rising. It is thus understood that the contents and focus of the Project activities have adequately addressed the needs of the beneficiaries.

4-1-2 Effectiveness

The effectiveness of the Project is considered as high based on the following analysis:

(1) Prospects to achieve the Project Purpose

The Project Purpose is to increase the production and productivity of rice cultivation. Through the training activities of the Project, application of improved techniques and fair increase of yield have been reported from the Project Sites where the initial interventions have been made. Lessons in terms of the selection of appropriate sites for small-scale irrigation have been taken from the experiences of some Project Sites where the yield performances of training plots were not as good as expected. Therefore, such favorable changes in terms of productivity are anticipated as the results of the upcoming field training activities in the other Project Sites, too. Expansion of the areas cultivated with rice has also been reported in the Project Sites, thus the prospect of achieving the Project Purpose seems to be high.

(2) Contribution of outputs to the achievement of the Project Purpose

The Project has so far put much of its efforts in carrying out the field training activities in the Project Sites. Along with the improvement of rice cultivation techniques among the farmers, the tangible effects in production and productivity have been appearing in those Project Sites, which should be interpreted as the contribution of Output 2 to the partial attainment of the Project Purpose. The initial field training activities have essentially required close supervision and direct involvement of Japanese experts, the roles of whom are deemed be borne by the DAOs in the future. Hence, it is a challenge for the Project to further capacitating the DAOs to be able to identify potential sites for irrigated rice cultivation for smallholders and to disseminate appropriate cultivation techniques by their own. With these observations, the Team considers that the contribution of the Output 1 for the attainment of the Project Purpose has yet to be strengthened for the rest of its cooperation period.

(3) Analysis of factors

1) Promoting factors

In current years, GoU has been implementing the National Agricultural Advisory Services (NAADS), which is the comprehensive national program for agricultural extension. At present, many of the DAOs are integrated in the program, serving as the NAADS coordinators at the sub-counties of their jurisdictions. With this arrangement, the DAOs have generally been better equipped with logistics necessary for their extension activities such as mobility and funds for field operations compared to the situation in the past. Although such supports are to be primarily utilized for the NAADS activities, these enabling working environments have also encourage the DAOs to visit the field more frequently, which also contributed to the positive involvements of the DAOs in the Project activities, particularly in the Project Sites. It may also have implications for further expansion; there may be chances for the smallholders to obtain supports for their future rice cultivation as the NAADS is to respond to the locally prioritized needs and aspirations of the farmers.

2) Hampering factors

The adverse climatic conditions during the first cropping season have affected the field training activities in a few Project Sites that were initially selected. The Team found that the climatic conditions should have been considered as a very influential factor for the Project activities thus recommends its inclusion as an important assumption in the PDM.

(4) Important assumptions

As mentioned above, climatic conditions have affected the implementation of Project activities. The Project had to suspend field training activities in a few Project Sites and to identify alternative sites in these Districts. While examining the influences of other important assumptions, the Team also found that some additional important assumptions are to be monitored in the course of the Project implementation, that are reflected in the proposed revision of the PDM. (Details are given in Annex 11.)

4-1-3 Efficiency

The efficiency of the Project is assessed as fair based on the results of the examination on the following aspects:

(1) Japanese experts

The Japanese experts in the relevant fields of expertise have so far been dispatched as scheduled. Both the long-term and short-term experts have properly played their expected roles in the course of the implementation of the Project activities, which have been appreciated by the counterpart personnel as well as by the beneficiary farmers in the Project Sites.

(2) Machinery and equipment

The machinery and equipment required for the Project activities and technical transfer have duly been provided as per original plans. These machinery and equipment are fully utilized in group and field training, regular monitoring activities and management of the Project. All of them are properly kept in good conditions.

(3) Training of the counterpart personnel in Japan and the third country

Those who have attended the training in Japan and Egypt generally assess that the subjects of these training were adequate. As for the timing of the training, some comments were made for future consideration that it would have been better if the training in Japan had been organized during the rice cropping season. Generally, the ex-training participants appreciate that their learning from the training has been helpful not only for the activities of the Project but also for their future activities to support the rice growing smallholders. However, the Team noted with regrets that there were a few cases of cancellation of the already approved training opportunities due to the sudden changes of schedule for the part of the nominated candidates.

(4) Inputs from the Ugandan side

The counterpart personnel were assigned from MAAIF and Districts in the target area to take part in

the Project activities. The provision of the office spaces with basic equipment and facilities for the Project Office at MAAIF and Liaison Office in Mbale have contributed to the smooth implementation of the Project activities.

(5) Collaboration with other JICA technical cooperation

There have been other technical cooperation initiatives by JICA in promotion of rice production in Uganda, namely, NERICA Rice Promotion Project and JOCV program. The Project has been collaborating with these initiatives, particularly in terms of development of training programs with the former, and for further dissemination of rice cultivation techniques to the smallholders in the target area with the latter. These collaborations are considered to have contributed to the efficiency of the Project.

4-1-4 Impact

The impacts of the Project are generally evaluated to be positive, but there are cautions to be taken to avoid some possible negative impacts as described in the following:

(1) Prospect of attaining the Overall Goal

Prospects of achieving the Overall Goal, i.e. the contribution of the self sufficiency of rice in the Republic of Uganda, could not yet be assessed at the time of the Review. The production and productivity of rice cultivation have been increased in some of the Project Sites and their surroundings as the results of the field training. However, these effects were observed only at the limited number of Project Sites, which cover very small parts of the selected sub-counties. There has not yet been any basis to assess the overall impact on the increase of rice production in the country as a whole.

In the discussion, some logical gaps between the Project Purpose and the Overall Goal have been noted: The increase of production and productivity of rice, being aimed at as the Project Purpose, is expected to be attained at the level of the Project Sites by the end of the cooperation period. The attributes of the Project may not be large enough to bring notable contributions to the self-sufficiency of rice in the whole country, given that the Overall Goal is to be attained within a few years time after the completion of the Project. Therefore, the Team recognizes the necessity to reconsider the level of the Overall Goal and to propose its modification in the PDM, as indicated in the Annex 11.

(2) Positive impacts

It has been reported in the interviews with the farmer groups in several Project Sites that the farmers have started working together in the individual farms of members in turn, particularly for transplanting and harvesting, which they had not practiced before. After they worked in a group in the training plots, they decided to apply the group work mechanism to their individual plots. Some of the interviewed farmers also shared with the Team the benefits of their forming themselves into a group such that they can always have co-farmers to discuss with whenever any problem arises in production and to exchange ideas, not limited to rice cultivation. Although it is not the case for all of the groups interviewed, such social cohesiveness and feeling of unity should be appreciated as positive impacts derived from the undertaking of the Project activities in the Project Sites.

(3) Negative impacts

There have been the reports from a few Project Sites on the examples of problems such that the farmer group received complaints during the prolonged dry season from the community people who are using the same source of water for their domestic use and animal care, and that other farmers in upstream areas also started rice production without proper water management, causing the dispute over water distribution. The small-scale irrigation facilities inevitably have limitation in their geographical coverage and would possibly create such conflict over limited water availability. It is thus essential to facilitate the farmer groups to foster their conflict resolution capacities, and to seek supports from local authorities who would arbitrate such conflicts in the communities, as well as to take sufficient precautions in selecting potential sites to be explored.

Another aspect that drew the concern of the Team was the possible violation of the regulations on wetland set by National Environment Management Authority (NEMA) in future expansion of irrigated rice cultivation. The Project has taken cautions on environmental impacts and has sensitized the farmers in the training in close collaboration with NEMA and District Environment Officers (DEOs). In cases of a few Project Sites, the Project, in collaboration with the DEOs, facilitated the farmers to obtain special permissions to utilize the wetland where the farmers had already been cultivating prior to the enactment of the relevant laws. However, the process of spontaneous diffusion of rice cultivation among the farmers in general in the target area is out of the Project's control, where any violation of these legal statutes may take place either by farmers' ignorance, misconceptions or willful misconducts. It is thus necessary to strengthen the coordination among the relevant institutions including the local government, especially at the field level, in order to address this issue by disseminating precise understanding on the existing laws and regulations as well as by sensitizing the communities for proper management of wetlands.

4-1-5 Sustainability

At the time of the Review, the sustainability of the Project is assessed as fair in some of the aspects, but there are also some other aspects that need continuous monitoring and further reinforcement as described in the following:

(1) Policy and institutional sustainability

In the current DSIP of MAAIF, rice is recognized as one of commodities for the strategic enterprise, reflecting the emerging importance of rice as the profitable cash earner. Also, the Project is implemented in line with the UNRDS, i.e. a decade-long program, thus it is assumed that the policy support would continuously be secured for the coming years. As for the institutional sustainability, however, there has not yet been clear assurance in terms of training for the DAOs and farmers on irrigated rice cultivation techniques. As the NAADS has been operated based on the demand-drive principles, program alignment between the crop-specific extension initiatives of the Project and NAADS does not seem to be quite rational at this point of time. Since it is anticipated that institutional arrangements would further be streamlined in near future along with the implementation of UNRDS, the Project should closely monitor the discussion and coordinate with relevant decision making

authorities during the later course of its implementation.

(2) Financial sustainability

So far, the MAAIF and the Districts have made sincere efforts to manage the costs for services and mobility of the counterpart personnel who participate in the Project activities. The Project has also carefully designed the training programs to be financially efficient by limiting the external inputs and maximizing the beneficiaries' contributions. Still, the majority of costs incurred for both group and field training have been shouldered by the Project, which would no longer be available after the completion of the Project. The financial matters are closely related to the question of institutional mandates of agricultural training as mentioned above, thus it is assessed that the financial sustainability from long-term perspectives rely largely on the future institutional arrangements.

(3) Technical sustainability

The irrigated rice cultivation techniques introduced in the field training of the Project are the basic and simple techniques that have been proven to bring positive results in the productivity. It has so far been observed in the Project Sites where the performances of training plots were promising that the level of adoption of these techniques among the farmers is considerably high. The farmers interviewed in the Project Sites during the Review were unanimously expressed their eagerness to continue or even to expand the irrigated rice cultivation by their own in future. Many of them have also started to teach the learned techniques to other farmers in the communities in the localities. Hence the technical sustainability for the part of the beneficiary farmers is generally considered as high.

It is however required to further accelerate technical enhancement among the DAOs to further scale up the effects of the Project, as the rice is relatively new crop for most of them to deal with in their advisory services for the smallholders. It may thus be necessary to provide further technical supports to DAOs particularly in identifying appropriate sites and techniques for irrigated rice cultivation that are suitable to the local conditions, so as to ensure the technical sustainability for the part of the DAOs.

4-2. Conclusion

The Team has confirmed that the Project has been implemented without any critical problem or notable delay, and that the prospect of achieving its Outputs by the end of the Project is assumed as high. Thus the Team concluded that the Project would likely achieve its Purpose within the cooperation period, given the Project should continue its efforts and properly address the issues and concerns identified through this Review.

5. Recommendations

(1) Revision of the PDM

In the process of the Review, discussion was held to set the Objectively Verifiable Indicators (OVI) and their target figures in the PDM, based on the achievements so far made through the Project activities. In the course of discussion, some questions were raised in terms of the goal and outputs setting,

indicators and activities stipulated in the current version of the PDM. It was noted that some modifications would be necessary to clarify the actual directions of the Project as well as to streamline the logical sequences of the design of the Project. Accordingly, it is recommended for the Project to further discuss and revise the PDM. Major points for the proposed revision are; 1) setting of the OVI with target figures, 2) setting of the goal level, and 3) adjustment of logical sequence between the outputs and the activities. The proposed revision of PDM and the explanations on the major points are attached as Annex 10 and Annex 11, respectively.

(2) Efforts to secure the operational funds for Project activities

It has been observed that, despite of the various efforts, the District Production Offices have had limitations in mobilizing their own funds to support to the Project activities undertaken in respective Districts. At present, rice cultivation has not yet gained enough popularity to become one of the priorities in the agricultural plans and programs at the Districts and even at the sub-counties where the Project activities have been carried out. In this context, the Team acknowledges with appreciation the efforts made by MAAIF to realize allocation of Counterpart Fund of GoU for the Project. As mentioned in the previous part, the MAAIF could obtain the counterpart fund to be allocated for the Project activities for the first time in December 2009. The Team requests the MAAIF to continue efforts to obtain more funds for the Project activities which would also augment the cost sharing efforts of the participating Districts.

(3) Further discussion on environmentally sound utilization of the wetlands

As mentioned in the previous sections, the issues related to the possible exploration of wetlands for productive purpose came to be a concern in the process of the Review. As the scope of the Project is mainly on the rice production in the lowlands, environmental aspects have been taken into consideration through the entire process of the Project implementation. Along with the National Policy for Conservation and Management of Wetland Resources of 1995, relevant regulations and guidelines have been developed to realize proper conservation, management and utilization of wetlands. These legal frameworks are closely related, not only to the Project activities from now on, but also to the future promotion of rice cultivation in the wetlands where high production potentials lie. It is thus requested to the relevant institutions and stakeholders of GoU to further elaborate measures for appropriate management and utilization of potential wetlands, as well as to promote efforts to assess any possible impacts of agriculture with scientific validations, so as to facilitate the constructive discussions on the future directions on this issue.

Annex 1: Schedule of the Mid-Term Review

			_	1	1			-
Ugandan Member Mr. Byamagisha mers in the PS) mers in the PS) mers in the PS) amers in the PS) amers in the PS) dinterview) linterview) interview) interview) id interview)								
Ms. tagaki (Evaluation Analysis) Ms. tagaki (Evaluation Analysis) Depart from Tokyo Arrive at Entebee • Meeting at JICA Uganda Office • Briefing on the Project • Courtesy call (o'c) to MAAIF • Evaluation Team Member Meeting • Visit to Budaleja District (Meeting with DAOs and farmers in the PS) • Visit to Mbale District (Meeting with DAOs and farmers in the PS) • Visit to Budaleja District (Meeting with DAOs and farmers in the PS) • Visit to Budale District (Meeting with DAOs and farmers in the PS) • Visit to Budale District (Meeting with DAOs and farmers in the PS) • Visit to Budale District (Meeting with DAOs and farmers in the PS) • Visit to Budale District (Meeting with DAOs and farmers in the PS) • Visit to Budale District (Observation of the PS & field interview) • Visit to Pallisa District (Observation of the PS & field interview) • Visit to Kamin District (Observation of the PS & field interview) • Visit to Rumin District (Observation of the PS & field interview) • Visit to Bugini District (Observation of the PS & field interview) • Visit to Bugini District (Observation of the PS & field interview) • Visit to Bugini District (Observation of the PS & field interview)			Drafting of Review Report & relevant documents	Preparation for Internal Discussion				
Mr. Noda (Cooperation Planning) Mr. Noda (Cooperation Planning) Depart from Tokyo Amive at Entebee • Meeting at JICA Uganda Office • Cot to MAAIF, NARO and NaCCRI Field Visit (on NERICA Promotion Project) Field Visit Back to Kampala • Reporting of the Results of the Field Survey to MAAIF	Drafting of Review Report & relevant documents The Jaranese Review Team members	the Japanese Review Team members and Observation of the research fields	sukedea District		ecretary, and Director General of NARO			Office
Mr. Kohara (Team Leader) & Mr. Tomitaka (Agricultural Extension / Irrigated Agricultura)	Arrived at Entebee from Tanzania Meeting with the Jananese Experts and among	Meeting with the Japanese Experts and among the Japanese Review Team members Visit NeCCRI for Briefing by Japanese Experts and Observation of the research fields	Field Visit to Pallisa District, Mbale District, and Bukedea District	Back to Kampala	Internal Discussion on the Review Reports • c/c to the Minister of Agriculture, Permanent Secretary, and Director General of NARO • Discussion on the Review Report	Discussion on the Review Reports	JCC meeting Signing of the Minutes of Meetings	• Renorting to large Embassy & IICA I loanda Office
San Tue Mon Wed Tue Mon Mon Tue Mon Mon Tue Mon	E E	Sat	Sun	Mon	Tue	Wed	лЧ	
Si. Date 1.177 1.177 1.172 1.173 1.174 1.177 1.175 1.175 1.178 1.176 1.177 1.177 1.177 1.177 1.178	-	1/30	131	2/1	17 2/2	18 2/3	19 2/4	

Annex 2: Project Design Matrix (PDM)

Version; 0

Created by JICA Preparatory Study Team

Project Title: Technical Assistance Support to Sustainable Irrigated Agricultural Development Project in Eastern Uganda Period of Project: June 2008 to June 2011 (Three Years)

	Normative Commany	Objectively Verifiable	Moons of Verification	actional Acctional
	ranguyo Odillinary	Indicators		
ð	Overall Goal Increased production of rice in the targeted Districts contributes to achievement of self-sufficiency of rice in the Republic of Uganda.	(to be confirmed after the Baseline Survey)	(to be confirmed after the Baseline Survey)	
Pro	Project Purpose Production and productivity of rice are increased through introduction of sustainable irrigated agriculture techniques in the Project Sites in the targeted Districts		(as above)	The policy is favourable for irrigated agriculture development.
- Out	Outputs Capacity of concerned personnel, necessary for training and extension of irrigated rice production in the targeted Districts, is developed.	(as above)	(as above)	Trained staff at the central and district levels continuously work
7	Irrigated rice cultivation techniques are promoted among smallholders and their community based groups in the Project Sites.	(as above)	(as above)	for irrigated agriculture development.
Acti	Activities	<u>dul</u>	Inputs	
-6	Carry out the baseline survey, and select the Project Sites and Model	<japanese side=""></japanese>	<ugandan side=""></ugandan>	The particular of trained
0-5	Establish a liaison office to coordinate Project activities and	Experts	Necessary Facilities for	rnmental Officials
		1. Japanese Long-term Experts	implementing the Project	farmers who involve in the project
7-	Plan training programs in the Project Sites in the targeted Districts	2. Short-term Experts (including	1. Project Coordination Office	is increased.
1-2	or trainings	Third Country Experts, and	at MAAIF in Entebbe and 1	
<u>က</u>	Support Environmental Impact Assessment (EIA), conducted by Central and Local Governments	Ugandan Consultants, II necessary)	project Liaison Office in Mbale and necessary	
4	Establish the Project Sites in the targeted Districts		facilities	
1 -5	Train Officials in targeted Districts, on irrigated agriculture techniques	Equipment and Material	2 Related cost for the	Pre-conditions
2-1	and demonstration metrods Train Model Farmers on injurated active litture technicules and	2. Equipment for Training	facilities	MAAIF strengthens the linkage
I	demonstration methods	3. Audio-Visual Equipment		among related institutions for
2-5	Support establishment of farmers groups	4. Others	3. Assignment of C/P	irrigated agriculture development.
2-3	Conduct trainings for strengthening farmers groups, i.e. (a)	C/P Training	staff	Farmers adopt introduction of
	cultivation management, (c) post-harvesting, (d) etc., by trained	1. Training in Japan	-	irrigated agriculture.
	Officials and Model Farmers, utilizing technical manuals, textbooks,	2. Iraining in the I hird Country	Allocation of shared	
	and Demonstration Farms in the Project Sites	Allocation of shared operational	operational cost for the	The security conditions in the Draiget Area of
2-4	Monitor, evaluate and follow-up of farmers groups' activities	cost for the Project		rioject Alea do 110t deteriorate.

Annex 3: Plan of Operations (PO)

	A 261: 1245 A	FY2008			FY2009			FY2010		FY2011	Responsible
	Activities	=	2	_	Ξ	2	_	=	2	-	Persons
0-1	Carry out the baseline survey, and select the Project Sites and Model Farmers	- <u>-</u> -									
0-5	Establish a liaison office to coordinate Project activities and communicate with respective targeted Districts	:- <u></u>									Ugandan Side
1-1	Plan training programs in the Project Sites in the targeted Districts	1_									PM, PC, PO, DG, JICA Expert
1-2	1-2 Prepare technical manuals and text books necessary for trainings	.t									PM, PC, PO, DG, JICA Expert
1	Support Environmental Impact Assessment (EIA), conducted by Central and Local Governments										PM, PC, PO, DG, SO, JICA Expert
1-7	1-4 Establish the Project Sites in the targeted Districts	<u>_</u>								 	PM, PC, PO, DG, JICA Expert
1.5	Train Officials in targeted Districts, on irrigated agriculture techniques and demonstration methods	<u> </u>						 		 	PO, DG, SO, JICA Expert
2-1	Train Model Farmers on irrigated agriculture techniques and demonstration methods	. <u> </u> _									PO, DG, MF, SO, JICA Expert
2-2	2 Support establishment of farmers groups	J 									PO, DG, MF, SO, JICA Expert
2-3	Conduct trainings for strengthening farmers groups, ie; (a) construction, maintenance, and management of irrigation facilities, (b) cultivation management, (c) post-harvesting, (d) etc., by trained Officials and Model Farmers, utilizing technical manuals, textbooks, and Demonstration Farms in the Project Sites	- <u></u> 									PO, DG, SO, JICA Expert
7-7	2-4 Monitor, evaluate and follow-up of farmers groups' activities	J									TC Members and JICA
က	Evaluation (Mid-term, Final)										TC Members and JICA
4	Technical Committee (TC)										TC Members
2	Joint Coodinating Committee (JCC)										JCC Members

Note 1: PM (Project Manager), PC(Project Coordinator), PO (Project Officer), DG (District Government), MF (Model Farmer), Supportive Organizations (SO) Note 2: Timing is Japanese fiscal year which starts from April, ends in March.

Annex 4: List of Machinery and Equipment

Condition and Utilization	Good	Good	Good	Good	P009	Good	Good	Good	Good	
Purpose	Transport	Transport	Transport	Project Management and Documentation	Training	Training	Project Management and Documentation	Project Management and Documentation	Transport	
Location	Liaison Office in Mbale	MAAIF	Liaison Office in Mbale	Liaison Office in Mbale	NaCCRI	NaCCRI	Liaison Office in Mbale	NaCCRI, Liaison Office in Mbale	MAAIF	
Price (US\$)	50 000	00,00	37,799	8,223	10,412	1,762	2,025	1,975	48,814	170,912
Manufacturer	NISSAN	NISSAN	NISSAN	CANON	Greaves	SONY	д	CANON	NISSAN	
Quantity (Unit)	1	_	_	_	3	12	_	2	_	
Equipment	Vehicle (Pick up truck)	Vehicle (Pick up truck)	Vehicle (4WD)	Photocopy machine (Black & White)	Hand Tractor	Digital Camera	Desktop Computer	Photocopy machine (small)	Vehicle (4WD)	Total
Procurement Date	Oct. 2008	Oct. 2008	Dec. 2008	Jan. 2009	Mar. 2009	Mar. 2009	Mar. 2009	Mar. 2009	Sep. 2009	
Registered No.	B20-01	B20-02	B20-03	B20-04	B20-05(1)-(3)	B20-06(1)-(12)	7 B20-07	B20-08(1)(2)	B21-01	
	1	2	က	4	1 2	9		8	6	

Annex 5: List of the Personnel Trained in Japan and the Third Countries

Include of Tritle of Training of SIAD counterpart staff Fishers Venue of training and Working of SIAD counterpart staff Fishers Training of SIAD counterpart staff Fishers Training of SIAD counterpart staff Fishers Manistry of Agriculture, Forestry and Mar. 29 and Mar. 2009 Improvement and Modification of Improvement and Mar. 2009 Improvement and Modification of Improvement and Modification of Improvement and Mar. 29 agriculture, Forestry and Improvement and Mar. 29 agricultural Technique Center States, etc. MAAIF MEMAIR MAAIF MAAIF MEMAIR MAAIF MAAIF
odfrey Jan. 6 - Improvement and Modification of Agricultural Machinery for Africa Mar. 5, 2009 Agricultural Machinery for Africa Mar. 29 - Training of SIAD counterpart staff Fishries Apr. 14, 2009 Apr. 14, 2009 In Japan Oct. 11 - Irrigation and Drainage for Africa Sudies (RCTWS), Arab Republic of Egyptt Standing Of Station and Drainage for Africa Studies (RCTWS), Arab Republic of Egyptt
odfrey Jan. 6 - Improvement and Modification of Agricultural Machinery for Africa Agricultural Machinery for Africa Mar. 29 - Training of SIAD counterpart staff Apr. 14, 2009 in Japan arles Jul. 5 - Training of SIAD counterpart staff Jul. 18, 2009 in Japan Oct. 11 - Irrigation and Drainage for Africa Phase 2 Innson Dec. 19, 2009 Phase 2
odfrey Jan. 6 - Improver Jan. 6 - Improver Agricultu Agricultu Apr. 14, 2009 in Japan arles Jul. 5 - Training S Jul. 18, 2009 in Japan S Jul. 18, 2009 in Japan Dec. 19, 2009 Phase 2
odfrey e e arles s s
Mr. Byaruhanga Godfrey Mr. Byaruhanga Godfrey Mr. Akena Frank Mr. Lubega George Mr. Ecaat Stephen Justin Mr. Sembatya Charles Mr. Sembatya Charles Mr. Akena Frank Mr. Akena Frank Mr. Kitamirike Johnson Mr. Kitamirike Johnson
, , , , , , , , , , , , , , , , , , , ,

Annex 6: Sample Group Training Program

Day	-	Tim	e	Topics
Day 1	9:30	-	10:00	Opening Remarks
	10:00	-	11:15	Wetland Conservation Laws
	11:15	-	12:30	Sustainability of Paddy Fields
	12:30	-	13:30	Break
	13:30	-	14:45	Irrigation Management
	14:45	-	15:00	Break
	15:00	-	16:30	Mentenance of Irrigation Techniques
Day 2	9:30	-	11:00	Rice
	11:00	-	11:15	Break
	11:15	-	12:30	Lowland & Upland Rice Cultivation Techniques
	12:30	-	13:30	Break
	13:30	-	15:00	Field Visit in NaCRRI
	15:00	-	16:00	Yield Compornent
Day 3	10:00	-	12:30	Practice : Nursery Bed Making & Transplanting
	12:30	-	14:00	Break
	14:00	-	15:00	Practice : Lowland & Upland Rice Sowing
	15:00	-	16:30	Practice : Paddy Field Preparation
Day 4	9:30	-	11:00	Project Briefing
	11:00	-	11:30	Break
	11:30	-	12:30	Closing and Award of Certificates

Annex 7: List of the Group Training Conducted

	L					70 50	dio:p	
(**)	į		•			10. OI Pe	No. of Participants	
FΥ	<u>.</u>	Title	Contents	Trainig Period	DAO, AO & AAO	KF	Others (*2)	Total
	,	Basic Skills of Irrigation and Rice Cultivation	Lecture and Practice of Paddy Field,	Dec 4 - F 2008	CC	c	c	22
_	-	(Lecture)	Irrigation, Upland, Lowland, Wetland	Dec. 4 - 3, 2000	77	>)	77
_	c	Social College de Irrigation and Discovition	Lecture and Practice of Paddy Field,	Dec 9 12 2008	O	g	U	7
	۷	Dasic Onlis of Illigation and Nice Cuttivation	Irrigation, Upland, Lowland, Wetland	Dec. 0 - 12, 2000	ກ	0	>	2
9000	c	Boois Olillo of Important Dio olilling	Lecture and Practice of Paddy Field,	0000 00 20 30	O	9	U	4
2002		Dasic okilis of Illigation and Rice Cultivation	Irrigation, Upland, Lowland, Wetland	Jail. 21 - 30, 2003	ກ	0	>	<u> </u>
_	_	noito vitlu O coilo pao acitoriral to alixo cioca	Lecture and Practice of Paddy Field,	0000 20 70 403	7.0	٥	c	ç
_	1	basic onlingation and Nice Cultivation	Irrigation, Upland, Lowland, Wetland	reb. 24 - 21, 2009	7	0	7	77
	ų	Basic Skills of Bica Cultivation	Lecture and Practice of Upland and	Mar 10 - 20 2000	U	0	ď	17
_	2	Dasic Onlis of Nice Cultivation	Lowland	IVIAI. 19 - 20, 2003	>	D	0	<u> </u>
	Ú	noito vitlu O coilo pao acitorial to aliabonizado	Lecture and Practice of Paddy Field,	2000 0 40 0 074	61	0	Û	Ċ
	0	Dasic Onlins of Imgation and Nice Cuttivation	Irrigation, Upland, Lowland, Wetland	2003.6.10 - 6.21	71	0	>	70
2009		7 Basic Skills of Irrigation and Rice Cultivation	Rice Yellow Mottle Virus (RYMV) Training	2009.9.21 - 9.22	10	7	0	17
					1	,	ı	
	∞	Basic Skills of Irrigation and Rice Cultivation	Lecture and Practice of Paddy Field,	2009.12.8 - 12.11	2	8	2	17
)		Irrigation, Upland, Lowland, Wetland			,	l	:
		F	Total		81	52	12	146
						l)	ļ)
								Ī

(*1) Based on the Japanese Fiscal Year (*2) Other particiants includes counterpart personnel of the JOCV in the target area, Farm Manager of Soroti Agricultural College, interns and so forth.

Annex 8: List of Field Training Conducted

Group		District		Date	Theme	No. of Participants	Average Attendance
-				2009/2/18	Field Making	6	
Group A Group A		DI 1		2009/3/23	Nursery Bed Making, Sowing	6	_
	1	Bududa	1	2009/4/15	Leveling	4	6
				2009/4/21	Transplanting	6	
				2009/3/24	Nursery Bed Making	28	
				2009/3/25	Sowing	24	
				2009/4/7	Leveling	12	00
	2	Bukedea	1	2009/4/15	Transplanting, Weeding	15	20
				2009/7/17	Harvesting	20	
				2009/8/4	Harvesting	21	
			2	2009/11/16	Field Making	4	4
				2009/4/8	Nursery Bed Making, Leveling	22	
				2009/4/9	Sowing	23	
				2009/4/28	Transplanting, Weeding	13	45
	ا ہا	NAII-	1	2009/8/7	Harvesting	9	15
	3	Mbale		2009/8/21	Harvesting	n.a.	
				2009/8/31	Harvesting	9	
				2009/10/12	Rice Husk Charcoal	11	40
			2	2009/10/28	Transplanting	12	12
_		NAL ! T	т	2009/11/20	Nursery Bed Making	17	40
/ dr	4	Mbale I	L	2009/12/14	Transplanting	18	18
5				2009/4/29	Nursery bed Making, Leveling, Sowing	12	
യ	5	Mayuge	Э	2009/5/18	Transplanting	15	13
				2009/9/8	Harvest	11	
Gr				2009/3/10	Nursery Bed Making, Sowing	35	
				2009/4/2	Leveling, Transplanting, Weeding	11	
	6	Manafw	a	2009/6/24	Sowing	20	18
				2009/7/29	Harvesting	18	
				2009/11/2	Harvesting	7	
				2009/5/13	Field Making, Leveling, Nursery Making	29	
	_	5		2009/5/14	Sowing	31	~.
	7	Budaka	3	2009/6/2	Transplanting, Weeding	15	21
				2009/9/15	Harvest	10	
				2009/4/22	Nursery Bed Making, Leveling	17	
		5		2009/4/23	Sowing	9	4.0
	8	Bugiri		2009/5/18	Transplanting	7	10
				2009/9/9	Harvesting	6	
				2009/6/25	Nursery Bed Making, Leveling	13	
	9	Busia		2009/6/26	Sowing	20	13
				2009/7/20	Transplanting, Weeding	7	
	,,	.		2009/7/21	Nursery Bed Making, Sowing	29	2.1
	10	Butaleja	а	2009/8/26	Transplanting, Weeding	12	21
				2009/9/5~9/10	Field Making	35	
Group B	11	Pallisa 1	I	2009/9/14~9/16	Nursery Bed Making, Sowing	24	25
		Pallisa I		2009/10/8	Transplanting	15	
				2009/10/13	Rice Bran Adoption	2	
മ		-	_	2009/11/3~9	Field Making	12	_
g l	12	Pallisa I	1	2009/11/17	Nursery Bed Making, Sowing	5	7
5				2009/12/8	Transplanting	7	
_				2009/9/23	Nursery Bed Making, Sowing	11	
	13	Kaberama	aido	2009/10/15	Leveling, Transplanting	10	11
	14	Kumi		2009/12/3	Nursery Bed Making, Sowing	14	14
	15	Jinja		2009/12/21	Field Making	7	7
,	· · ~ [٠,۵				· · · · · · · · · · · · · · · · · · ·	<u> </u>

Annex 9: Details of the Training/Demonstration Plots in the Project Sites

Γ										C. chlodilos		
- ;					- - - - - -	Training/	Variety used	Yield	ō	Small noider Group	Potential	
SI.	Group	District	Sub-County	Village	Period of Field Training			(ton/ha)	Type	Membership	Areas for Expansion (ha)	Remarks
_	⋖	Budaka	Kamonkoli / Naboa	Jami / Kakoli	May 2009 - Sep. 2009	0.02	K85	2.4	Existing	100		
2	۷	45.15.18	Bukidai	isedeleM	Feb 2009 - Apr 2009	0.02	K98	Novield	New	30		Training was suspended due to the damage
7	(במממ	Dangar	Malabasi	1 cb: 2003 - Apr. 2003	0.01	Nerica 4	no i o		3		from low water temparature.
3	Α	Bugiri	Buwunga	Kiteigalixia / Bupala	Apr. 2009 - Sep. 2009	0.17	K85	5.5	Existing	45	11.0	
						0.04	K85	5.5				
			Bukedea / Kolir	Akuoro / Kaseera	Mar. 2009- Aug. 2009	0.02	Nerica 4	3.3	New	56	1.2	
4	⋖	Bukedea				0.03	Nerica10	2.3				
			00000	() () () () () () () () () ()	0000	0.02	K85			C		
			Dukedea	Apopo	Dec. 2009 -	0.02	K98)))	07		
ч	<	cial	idanilia	apaoqiia	סטטכ זיין - סטטכ איין	0.01	K85	No Decord	NO IV	25		Training was suspended due to the flooding
c	ζ	Dusia	Dalailio	afilolina	Juli. 2009 - Juli. 2009	0.03	Nerica10	חוס של סגו	A D	67		and then water shortage in the training plot.
9	Α	Butaleja	Busolwe	Nakwija	Jul. 2009 - Aug. 2009	0.03	Nerica 4	1.0	Existing	40		Training was suspended due to the flooding and then water shortage in the training plot.
						0.01	K85					
7	∢	Kumi	Atutur	Kakomongole	Dec. 2009 -	0.02	Wita 9		New	15		
						0.02	Nerica 4					
						0.03	K85	6.5				
			Nakaloke	Mamabasa	Apr. 2009 - Aug. 209	0.01	Nerica 1	6.0	Existing	10	0.5	
œ	∢	Mbale				0.01	Nerica10	3.2				
			OlolodolA	ologissi moly	3000	0.01	K85			4		
			INANAIONE	Indilluwigala	Oct. 2009 -	0.01	Nerica 4		Existing	2		
6	∢	Manafwa	Butiru	Bwanyama	Mar. 2009 - Jul. 2009	0.14	K98	5.1	Existing	27	8.0	
10	٨	Mayuge	Busakila	Basakila	Apr. 2009 - Sep. 2009	0.07	K98	4.5	Existing	36	4.2	
7	В	Amuria	Wera	Amolo								Training is tentatively postponed due to the enviromental isseu.
ć	٥	<u>:</u>	O Common	00000	0000	0.01	K85		Citoriy Ci	36		
7	۵	Jiija	paweilge	alliooni	Dec. 2009 -	0.01	Nerica 4		Griisiiig	cc		
73	α	Kaheramaido	Kalaki	Kalaki Central	Sep. 2009 -	0.05	K85		Existing	15		
!	١					0.05	Nerica 4		9)		
						0.01	K85		:	;		
7		<u></u>	Butebo / Petete	Kiriyoro	Sep. 2009 -	0.01	K98		New	<u>چ</u>		
†	۵	٦ ما				0.0	Kerica 4					
			Butebo / Petete	Kyiruruma	Oct. 2009 -	0.0	Wita 9		New	о		
						0.01	K85					
Ļ		ď				0.01	Wita 9		L	c		
0	Δ	20101	alibilla	Origia	Dec. 2009 -	0.01	Nerica 1		Existing	0		
						0.01	Nerica 4					
16	В	Tororo	Osukuru	Mudakor								Training is tentatively postponed due to the problem related to the consensus among
7												tarmers.