

Annex 4. Project Design Matrix of the Sustainable Development of Rain-fed Lowland Rice Production Project (Version 2)

Annex

Project Area: Northern and Ashanti Region

Project Period: 2009-2014 (5 years)

Implementing Organization: Crop Service Directorate (CSD), Ministry of Food and Agriculture (MOFA)

Beneficiaries: 30 RADU and DADU staff and 1,000 rice farmers

07-12-2010

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	
<b>Supor Goal</b> Rice production is increased in Ashanti and Northern Regions.	Average unit yield in rain-fed lowland in Ashanti and Northern Regions is increased to more than 3.5 t/ha	Annual report of Statistics, Research and Information Directorate (SRID)		
<b>Overall Goal</b> Productivity and profitability of rice farming in rain-fed lowland in Project areas is increased	a. Average unit yield in rain-fed lowland in the areas where the model of sustainable development of rain-fed lowland rice production is applied is increased to more than 3.5 t/ha  b. Income from rain-fed lowland rice production is increased in the areas where the model of sustainable development of rain-fed lowland rice production is applied	a. SRID annual report  b. Progress report /Project completion report		
<b>Project Purpose</b> Dissemination of the model for sustainable development of rain-fed lowland rice production is accelerated within the Project areas.	a. More than 1,000 farmers apply the model for sustainable development of rain-fed lowland rice production  b. All the manuals of technical package, farming support system and extension is compiled as "Model for sustainable rain-fed lowland rice development" and made available to stakeholders	a. SRID annual report  b. Progress report /Project completion report	Price of imported rice is stable	
<b>Outputs</b> 1. Technical Package of improved rain-fed lowland rice production practices is developed  2. Methodology to improve farming support system for sustainable rain-fed lowland rice production is verified  3. Extension procedure for sustainable rain-fed lowland rice development is established	1a. Average unit yield is increased to more than 3.5 t/ha in model sites 1b. Qualified manuals for technical package are prepared  2a. Quality of rice in the model sites is improved 2b. Sale of processed rice in the model sites is increased 2c. Income of farmers in the model sites is increased 2d. Manuals for farming support system improvement are prepared  3a. Effective Extension approach and methodology are identified 3b. Manuals of extension are prepared	a. Progress report/Project complete report  b. Progress report/Project complete report  Progress report/Project complete report	a. Trained farmers do not emigrate  b. Trained AEAs are not transferred to o regions c. Land mobilization does not cause problems d. Price of domestic rice does not decline drastically e. Climate does not change sharply	
<b>Activities</b> 1-1 Study on actual situation of rain-fed lowland rice production in the Project area 1-2 Select the model sites 1-3 Review existing technologies on rice production under rain-fed condition 1-4 Improve land development techniques 1-5 Improve rice cultivation practices 1-6 Develop manuals for technical package of improved rain-fed lowland rice production practices  2-1 Strengthen rice producers, processors and marketing groups in project sites 2-2 Improve farming management capacities of farmers and farmers' groups 2-3 Improve post-harvest management capacities of farmers and farmer's groups 2-4 Improve credit management capacities of farmers and farmers' groups 2-5 Improve marketing capacities of farmers and farmers' groups 2-6 Prepare guidelines and manuals for the improvement of farming support system  3-1 Conduct trainings for RADU, DADU, contact and key farmers on extension 3-2 Improve rice extension system in Project area 3-3 Verify extension methods in model sites 3-4 Improve extension procedure in priority sites 3-5 Develop guidelines and manuals for rice extension	<p style="text-align: center;"><b>Inputs</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <p style="text-align: center;"><b>Japanese Side</b></p> <p><b>Dispatched long-term experts</b></p> <ul style="list-style-type: none"> <li>- Land preparation</li> <li>- Rice cultivation technology</li> <li>- Extension/Administrative coordination</li> <li>- Farming system management</li> </ul> <p><b>Dispatched short-term experts</b></p> <ul style="list-style-type: none"> <li>- Post-harvest processing</li> <li>- Marketing</li> <li>- Credit system</li> </ul> <p><b>Materials, tools and equipment</b></p> <ul style="list-style-type: none"> <li>- Materials, tools and equipment for implementing the Project</li> </ul> <p><b>Stakeholders training</b></p> <ul style="list-style-type: none"> <li>- in Ghana, Japan or other country</li> </ul> </td> <td style="width: 50%; border: none; vertical-align: top;"> <p style="text-align: center;"><b>Ghanaian Side</b></p> <p><b>Counterpart personnel</b></p> <p><b>Physical facilities</b></p> <ul style="list-style-type: none"> <li>- Project offices</li> <li>- Shed for tools and equipment</li> <li>- Electricity, water and communication facilities</li> </ul> <p><b>Local cost</b></p> <ul style="list-style-type: none"> <li>- Expenses for the project implementation</li> </ul> </td> </tr> </table>	<p style="text-align: center;"><b>Japanese Side</b></p> <p><b>Dispatched long-term experts</b></p> <ul style="list-style-type: none"> <li>- Land preparation</li> <li>- Rice cultivation technology</li> <li>- Extension/Administrative coordination</li> <li>- Farming system management</li> </ul> <p><b>Dispatched short-term experts</b></p> <ul style="list-style-type: none"> <li>- Post-harvest processing</li> <li>- Marketing</li> <li>- Credit system</li> </ul> <p><b>Materials, tools and equipment</b></p> <ul style="list-style-type: none"> <li>- Materials, tools and equipment for implementing the Project</li> </ul> <p><b>Stakeholders training</b></p> <ul style="list-style-type: none"> <li>- in Ghana, Japan or other country</li> </ul>	<p style="text-align: center;"><b>Ghanaian Side</b></p> <p><b>Counterpart personnel</b></p> <p><b>Physical facilities</b></p> <ul style="list-style-type: none"> <li>- Project offices</li> <li>- Shed for tools and equipment</li> <li>- Electricity, water and communication facilities</li> </ul> <p><b>Local cost</b></p> <ul style="list-style-type: none"> <li>- Expenses for the project implementation</li> </ul>	<p>The Project is accepted by local authorities and farmers</p> <hr/> <p><b>Pro-condition</b></p> <p>a. Order is restored and economic situation is not worsen sharply</p> <p>b. The policy favourable for promotion of domestic rice is not changed</p>
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Annex 4. Project Design Matrix of the Sustainable Development of Rain-fed Lowland Rice Production Project (Version 3)

Annex 4-2

Project Area: Northern and Ashanti Region

Project Period: 2009-2014 (5 years)

Implementing Organization: Directorate of Crops Services (DCS), Ministry of Food and Agriculture (MOFA)

Beneficiaries: 30 RADU and DADU staff and 1,000 rice farmers

Ver. 3.0 Feb 08, 2012

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
<p><b>Super Goal</b> Rice production is increased in Ashanti and Northern Regions.</p>	<p>Average unit yield in rain-fed lowland in Ashanti and Northern Regions is increased to more than 3.5 ton/ha.</p>	<p>Annual report of Statistics, Research and Information Directorate (SRID)</p>	
<p><b>Overall Goal</b> Productivity and profitability of rice farming in rain-fed lowland in Project areas is increased.</p>	<p>a. Average unit yield in rain-fed lowland farmers in the areas who applying the recommended techniques of the "Model" is increased to more than 4.0 ton/ha in Ashanti and 3.0 ton/ha in Northern region.</p> <p>b. Income from rain-fed lowland rice production is increased in the areas where the modal of sustainable development of rain-fed lowland rice production is applied.</p>	<p>a. SRID annual report/Sample Farmer study</p> <p>b. Progress report /Project completion report/Sample Farmer study</p>	<p>a. The current policy for rice promotion is maintained.</p> <p>b. The agricultural input price which farmers usually purchase such as fertilizer, and also situation of rice marketing is not seriously deteriorating against for farmers.</p>
<p><b>Project Purpose</b> Dissemination of the "model for sustainable development of rain-fed lowland rice production (Model)" is accelerated within the Project areas.</p>	<p>a. More than 1,000 farmers apply the recommended techniques*2 of the "Model".</p> <p>b. Based on the rice extension plan in target districts, the rice extension plan of Northern and Ashanti region is produced and submitted to MOFA.</p> <p>c. All the manuals of technical package, farming support system and extension is compiled as "Model" and made available to stakeholders.</p>	<p>a. Progress report /Project completion report/Annual report of Region/Districts</p> <p>b. Progress report /Project completion report/Annual report of region/districts/ Rice extension plan</p> <p>c. Progress report /Project completion report</p>	<p>Price of imported rice is stable.</p>
<p><b>Outputs</b></p> <p>1. <u>Technical Package*1</u> of improved rain-fed lowland rice production practices is developed.</p> <p>2. Methodology to improve farming support system for sustainable rain-fed lowland rice production is verified.</p>	<p>1a. The average unit yield of trial plots in model sites is increased to more than 4.0 ton/ha in Ashanti and 3.0 ton/ha in Northern region. Also, the average unit yield of demo plots in priority sites is increased to more than the average yields of each district.</p> <p>1b. The quality of rice produced by farmers who utilize the recommended techniques is improved in the model sites. (seed quality and seed production, etc.)</p> <p>1c. The manuals of technical package are compiled, and made available to stakeholders.</p> <p>2a. Formation of Rice Quality Improvement Forum and its results (Based on 2012 Annual Plan, the Project team will confirm and determine this indicator by April 2012, and will finally approved by the SC meeting in 2013)</p> <p>2b. Based on farming condition in each plots, the rice cultivation calendar is prepared, and utilizing the calendar, the action plan is prepared and agreed by each community.</p>	<p>1 Progress report/Project complete report</p> <p>2 Progress report/Project complete report</p>	<p>a. Trained farmers do not migrate.</p> <p>b. Trained AEAs are not transferred to other regions.</p> <p>c. Land mobilization does not cause problems.</p>

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<p>3. Extension procedure for sustainable rain-fed lowland rice development is established</p>	<p>2c. XX numbers &amp; good example of farmers and farmer's groups' activities on value-added related to rice farming support system (Based on 2012 Annual Plan, the Project team will confirm and determine this indicator by April 2012, and will finally approved by the SC meeting in 2013)</p> <p>2d. The manual for improving the farming support system is produced and made available to stakeholders.</p> <p>3a. The trainings for farmers and relevant agricultural stakeholders and district/AEA officials of the rice extension are conducted in XX types/ XX times/XX persons (Based on 2012 Annual Plan, the Project team will confirm and determine this indicator by April 2012, and will finally approved by the SC meeting in 2013)</p> <p>3b. In line with the district rice extension plan, extension activities, monitoring and evaluation are carried out at the target seven (7) districts.</p> <p>3c. The guideline and manual of rice extension are produced, then made available to stakeholders.</p>	<p>3 Progress report/Project complete report</p>	<p>d. Price of domestic rice does not decline drastically.</p> <p>e. Climate does not change sharply.</p>	
<p><b>Activities</b></p> <p>1-1 Study on actual situation of rain-fed lowland rice production in the Project area</p> <p>1-2 Select the model sites</p> <p>1-3 Review existing technologies on rice production under rain-fed condition</p> <p>1-4 Improve land development techniques</p> <p>1-5 Improve rice cultivation practices</p> <p>1-6 Develop manuals for technical package of improved rain-fed lowland rice production practices</p> <hr/> <p>&lt;Farming Management&gt;</p> <p>2-1 Strengthen rice producers, processors and marketing groups in project sites</p> <p>2-2 Improve farming management capacities of farmers and farmers' groups (including "improve access on credit in-kinds of farmers and farmers' groups)</p> <p>&lt; Farming Support System &gt;</p> <p>2-3 Improve post-harvest management/ marketing capacities of farmers and farmers' groups</p> <p>2-4 Prepare guidelines and manuals for the improvement of farming support system</p> <hr/> <p>3-1 Conduct trainings for RADU, DADU, contact and key farmers on extension</p> <p>3-2 Improve rice extension system in Project areas</p> <p>3-3 Verify extension methods in model sites</p> <p>3-4 Improve extension procedure in priority sites</p> <p>3-5 Develop guidelines and manuals for rice extension</p>	<p style="text-align: center;"><b>Inputs</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p style="text-align: center;"><b>Japanese Side</b></p> <p><b>Dispatched long-term experts</b></p> <ul style="list-style-type: none"> <li>- Land preparation</li> <li>- Rice cultivation technology</li> <li>- Extension</li> <li>- Administrative coordination</li> <li>- Farming system management</li> </ul> <p><b>Dispatched short-term experts</b></p> <ul style="list-style-type: none"> <li>- Post-harvest processing</li> <li>- Marketing</li> </ul> <p><b>Materials, tools and equipment</b></p> <ul style="list-style-type: none"> <li>- Materials, tools and equipment for implementing the Project</li> </ul> <p><b>Stakeholders training</b></p> <ul style="list-style-type: none"> <li>- in Ghana, Japan or other country</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p style="text-align: center;"><b>Ghanaian Side</b></p> <p><b>Counterpart personnel</b></p> <p><b>Physical facilities</b></p> <ul style="list-style-type: none"> <li>- Project offices</li> <li>- Shed for tools and equipment</li> <li>- Electricity, water and communication facilities</li> </ul> <p><b>Local cost</b></p> <ul style="list-style-type: none"> <li>- Expenses for the Project implementation</li> </ul> </td> </tr> </table>	<p style="text-align: center;"><b>Japanese Side</b></p> <p><b>Dispatched long-term experts</b></p> <ul style="list-style-type: none"> <li>- Land preparation</li> <li>- Rice cultivation technology</li> <li>- Extension</li> <li>- Administrative coordination</li> <li>- Farming system management</li> </ul> <p><b>Dispatched short-term experts</b></p> <ul style="list-style-type: none"> <li>- Post-harvest processing</li> <li>- Marketing</li> </ul> <p><b>Materials, tools and equipment</b></p> <ul style="list-style-type: none"> <li>- Materials, tools and equipment for implementing the Project</li> </ul> <p><b>Stakeholders training</b></p> <ul style="list-style-type: none"> <li>- in Ghana, Japan or other country</li> </ul>	<p style="text-align: center;"><b>Ghanaian Side</b></p> <p><b>Counterpart personnel</b></p> <p><b>Physical facilities</b></p> <ul style="list-style-type: none"> <li>- Project offices</li> <li>- Shed for tools and equipment</li> <li>- Electricity, water and communication facilities</li> </ul> <p><b>Local cost</b></p> <ul style="list-style-type: none"> <li>- Expenses for the Project implementation</li> </ul>	<p>The Project is accepted by local authorities and farmers.</p> <hr/> <p>Pre-condition</p> <p>a. Security is maintained and economic situation is not worsen sharply.</p> <p>b. The policy favorable for promotion of domestic rice is not changed.</p>
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<p><b>Remarks - Word Definition</b></p> <p><b>*1 Improved technical package</b> It means that the "Technical Package" is introduced and developed by the Project for rice production. This technical package is composed of basic techniques which should be low-cost and easily applicable for farmers, which corresponds to geographic, ecological and water conditions, referring to as "Improved Technique".</p> <p>The aim of the "Improved technical package" is to promote production, quality and stability of rice production. In particular, there are currently 26 practices for rice production, thus "Land Development (bunds construction, land leveling, water harvesting, etc.)", "Rice cultivation (certified varieties, quality seeds, weeding, split fertilizer application, etc.)" and so on.</p> <p><b>*2 Recommended techniques</b> It means basic and indispensable techniques of the "Improved Technical Package", which are recommended by the Project. The Project is aiming at focusing on how land development and rice cultivation are applied on the field by farmers themselves.</p>				

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**Annex. 5: Achievement Grid of Inputs**

Date: February, 2012

Inputs (Planned)	Results				
<b>5-1. Japanese Side:</b>	<ul style="list-style-type: none"> <li>Assignment of the experts (As of 31st of January, 2012)</li> </ul>				
5-1-1. Personnel <ul style="list-style-type: none"> <li>Chief Advisor / Rice Production</li> <li>Extension / Project Management</li> <li>Land Development</li> <li>Rice Cultivation Technology</li> <li>Administrative Coordinator</li> <li>Farming System Management</li> <li>Participatory Rural Appraisal</li> <li>Post-harvest Processing</li> <li>Marketing</li> <li>Farming Support</li> </ul>	Types of experts	Months in each PFY			TOTAL (Man-month: M/M)
		JFY 2009	JFY 2010	JFY2011	
	Chief Advisor/ Rice Production	8	12	10	30
	Extension / Project Management	8	12	10	30
	Land Development	5	12	7	24
	Rice Cultivation Technology	-	-	8	8
	Administrative Coordinator	-	-	7	7
	Farming System Management	0.93	-	-	0.93
	Participatory Rural Appraisal	2.33	-	-	2.33
	Post-harvest Processing	-	2.13	1.66	3.79
	Marketing	-	1.97		1.97
	Farming Support	-	-	1.53	1.53
<b>TOTAL</b>	24.26	40.10	45.19	109.55M/M	
5-1-2. Training of counterpart personnel in Japan and the	<ul style="list-style-type: none"> <li>Counterpart training in Japan and the third countries (As of 31st January, 2012)</li> </ul>				

Note: The expert of "Extension / Project Management" has changed the duty to "Extension" since July, 2011.  
 Source: Monthly Reports provided by the Project, Final Reports from each short-term experts

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third countries		Training	Location	Period	Participant	Outline
(1)	Post Harvest, Rice Processing	JICA Tohoku		25/Aug/2010-26/Sep/2010	2	Acquiring the skill and knowledge of the post-cultivation processing of rice
(2)	General Farming course	Fukushima, Japan		1/Nov/2010-15/Nov/2010	3	Provide knowledge on rice production situation and its phases from cultivating to post-harvesting implemented in Fukushima
(3)	Consultative Visit to Projects in Burkina Faso	Burkina Faso		24/Jan/2011-28/Jan/2011	3	Discussing with authorities of land development, validating and observing actual field situations.
(4)	Post Harvest Rice Processing	JICA Tohoku		25/Aug/2010-26/Sep/2010	2	Acquiring the skill and knowledge of the post-cultivation processing of rice
(5)	Small-Scale Land Development in inland Valley	Ibaraki and Kumamoto, Japan		18/Jul/2011-6/Aug/2011	2	Acquiring the skill and knowledge of land development from observing the Japan's inland valley.
(6)	Policy Planning for Rice Production Development	Akita, Japan		20/Oct/2011-30/Oct/2011	4	Strengthening skills of project planning and rice production development
				Total	16	

Source: Monthly Reports provided by the Project, Final Reports from each participants

5-1-3. Provision of equipment  
Provision of machinery and equipment necessary for the project activities

Provision of equipment (As of 31st of January, 2012)			
Fiscal Year	Major items	Total amounts (GHS)	Exchange rate
JFY 2009	Vehicle, Motorbike, Air Conditioner, Copier, Projector, Desktop/Laptop PC, GPS, Digital Camera, Printer, etc.	GHS 198,091.66	1 USD = GHS 1.455 (July,2009) 1USD=GHS 1.412 (March,2010)
JFY 2010	Motorbike, Air Conditioner, Equipment for post-harvest, Survey Set, Laser Finder, etc.	GHS 19,582.51	1 USD = GHS 1.418 (November,2010) 1 GHS=JPY 56.927

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				(January,2011) 1 GHS=JPY 54.774 (March,2011)																			
	JFY 2011	Laptop Computer, UPS, Miller, Destoner Digital Camera, Stone Picker, Huller, Rice Cleaning Machine	GHS25,193.08	1GHS=JPY48.842 (October,2011) 1GHS=JPY47.988 (November, 2011)																			
		<b>TOTAL</b>	GHS 242,867.25 JPY 15,261,658	1GHS=JPY64.534 (Annual Average, FY2009) 1GHC=JPY60.099 (Annual Average, FY2010) 1 GHS=JPY51.646 (Average from 2011.Apr- 2011.Dec)																			
<p>Note: Please refer to Annex IV "Equipment List" in detail. Source: Equipment List produced by the Project</p>																							
5-1-4. Local Operational Expenses	<p>Local operational expenses (As of 31st January, 2012)</p> <table border="1"> <thead> <tr> <th>Project Fiscal Year</th> <th>JFY2009</th> <th>JFY2010</th> <th>JFY2011(up to the 3<sup>rd</sup> Quarter)</th> <th>Total Amounts</th> </tr> </thead> <tbody> <tr> <td>Amounts</td> <td>GHS 124,871.66</td> <td>GHS 288,774.41</td> <td>GHS 203,122.58</td> <td>GHS 616,768.65</td> </tr> </tbody> </table>					Project Fiscal Year	JFY2009	JFY2010	JFY2011(up to the 3 <sup>rd</sup> Quarter)	Total Amounts	Amounts	GHS 124,871.66	GHS 288,774.41	GHS 203,122.58	GHS 616,768.65								
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<b>5-2. Ghanaian Side:</b>																							
<p>5-2-1. Counterpart Personnel</p> <ul style="list-style-type: none"> <li>Project Supervising Director: Director, MOFA</li> <li>Rice Liaison Officer</li> <li>Project Manager: Director, MOFA (Ashanti, Northern Region)</li> <li>Schedule Officer: MOFA (Ashanti, Northern Region)</li> <li>Rice Cultivation: (Ashanti, Northern Region)</li> <li>Extension: (Ashanti, Northern Region)</li> <li>Land Development: (Ashanti, Northern Region)</li> <li>Farming System: (Ashanti, Northern Region)</li> </ul>	<p>Assignment of the counterpart personnel from the MOFA (As of 31st January, 2012)</p> <table border="1"> <thead> <tr> <th rowspan="2">No</th> <th rowspan="2"></th> <th rowspan="2">Name of Counterpart</th> <th rowspan="2">Position in Project</th> <th rowspan="2">Designation</th> <th rowspan="2">Remarks</th> <th colspan="2">Period of Assignment</th> </tr> <tr> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Mr.</td> <td>Kawaka Amoco Baffle</td> <td>Project Supervising Director</td> <td>Director Crop Service Directorate Ministry of Food and Agriculture</td> <td>Retired</td> <td>2009-07-01</td> <td>2009-09-01</td> </tr> </tbody> </table>					No		Name of Counterpart	Position in Project	Designation	Remarks	Period of Assignment		From	To	1	Mr.	Kawaka Amoco Baffle	Project Supervising Director	Director Crop Service Directorate Ministry of Food and Agriculture	Retired	2009-07-01	2009-09-01
No		Name of Counterpart	Position in Project	Designation	Remarks							Period of Assignment											
						From	To																
1	Mr.	Kawaka Amoco Baffle	Project Supervising Director	Director Crop Service Directorate Ministry of Food and Agriculture	Retired	2009-07-01	2009-09-01																

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2	Mr.	Kawaka Nicola	Project Supervising Director	Director Crop Service Directorate Ministry of Food and Agriculture		2009-09-09	2009-02-09
3	Dr.	Kwame Amish	Project Supervising Director	Acting-Director Crop Service Directorate (MOFA) (Director) ESD, MOFA	Replaced by Director	2011-02-09	2009-11-01
4	Mr.	Emmanuel Asante Korea	Project Supervising Director	Director Crop Service Directorate Ministry of Food and Agriculture		2011-11-01	Up to now
5	Mr.	Richard Twumasi-Ankrah	National Schedule Officer	Deputy Director Crop Service Directorate Ministry of Food and Agriculture	Replaced by Imoro Alhassan	2009-10-01	2010-03-10
6	Mr.	Imoro Al-Hassan	Rice Liaison Officer	Rice Liaison Officer Crop Service Directorate Ministry of Food and Agriculture		2010-03-10	Up to now
7	Mr.	George Badu Yeboah	Project Manager (ASH)	Director MOFA ASHANTI Region	Transferred into Central Region	2009-07-01	2010-04-01

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8	Mr.	William Boakye-Acheampong	Project Manager (ASH)	Director MOFA ASHANTI Region		2010-04-01	Up to now
9	Mr.	Peter Kwame Amoaku	Schedule Officer (ASH)	Crop Officer MOFA Ejisu District	Replaced by Amoah	2009-07-01	2009-10-01
10	Mr.	Paul Amoh	Schedule Officer (ASH)	Crop Officer MOFA Ashanti Region	Replaced by Tekpor	2010-12-09	2010-05-10
11	Mr.	Sammuel Kofi Tekpor	Schedule Officer (ASH)	Crop Officer MOFA Ashanti Region		2010-05-10	Up to Now
12	Mr.	Sammuel Kissi	Ashanti Regional Counterpart (Rice Cultivation)	MOFA Kumasi District		2009-09-01	Up to Now
13	Ms.	Mavis Agyeiwaa Yeboah	Ashanti Regional Counterpart (Extension)	MOFA Ashanti Region	Replaced by Yaa Pokua	2009-09-01	2010-05-01
14	Ms.	Yaa Pokuaa	Ashanti Regional Counterpart (Extension)	MOFA Ashanti Region		2010-05-01	Up to Now
15	Mr.	Eliasu Mumuni	Ashanti Regional Counterpart (Land Development)	MOFA Ashanti Region		2009-09-01	Up to Now
16	Mr.	Raphael Sorkpor Dodzi	Ashanti Regional Counterpart (Farming Support System)	MOFA Ashanti Region		2009-09-01	Up to Now
17	Mr.	Adongo Sylvester A	Project Manager (NOR)	Director MOFA NORTHERN Region	Retired	2009-07-01	2010-06-01
18	Mr.	Joseph Yeng Faalong	Project Manager (NOR)	Director MOFA NORTHERN		2010-06-01	Up to Now

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				Region			
19	Mr.	Yusuf Ahmed Tijani	Schedule Officer	Senior Crop Officer MOFA NORTHERN Region		2009 -07-01	Up to Now
20	Mr.	Dauda A Salam	Northern Regional Counterpart (Rice Cultivation)	Crop Officer MOFA Central Gonja District		2009 -10-01	Up to Now
21	Mr.	Charles Akangua	Northern Regional Counterpart (Extension)		Promoted to Chereponi District Director	2009 -09-01	2010-03-01
22	Mr.	Paschal Agbam	Northern Regional Counterpart (Extension)	Senior Extension Officer MOFA NORTHERN Region		2010 -06-10	Up to Now
23	Mr.	Alhassan Abdul Rauf	Northern Regional Counterpart (Land Development)	Assistant Agriculture Officer MOFA NORTHERN Region		2009 -09-01	Up to Now
24	Mr.	Iddrisu Musah	Northern Regional Counterpart (Farming Support System)	Crop Officer MOFA Trong Kunbung District		2009 -09-01	Up to Now
Source: Member List of steering committee meeting produced by the Project							
<b>5-2-2. Administrative Personnel</b> <ul style="list-style-type: none"> <li>• Secretary</li> <li>• Driver</li> <li>• Other staff necessary for the implementation of the</li> </ul>			<ul style="list-style-type: none"> <li>• Assistant (Sarah Nimako (Ashanti Region, MOFA), Jerotira Yvonne (Northern Region, MOFA))</li> <li>• Driver &amp; Assistant (Ebenezer Amankwaa (Ashanti Region, MOFA/JICA Project))</li> <li>• Driver (Kwadwo Aboagye (Ashanti Region, MOFA), Samuel Adjei (Ashanti Region, MOFA), Prince Mohammed</li> </ul>				

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Project	<p>Bawah (Northern Region, MOFA), Yahaya Mohammed (Northern Region, MOFA: under suspension from office due to health problems )</p> <ul style="list-style-type: none"> <li>Cleaner (Grace Amofah(Ashanti Region), Azara Awudu(Northern Region))</li> </ul>														
<p>5-2-3. Facilities</p> <ul style="list-style-type: none"> <li>Land, buildings, facilities and equipment necessary for the Project</li> <li>Rooms and spaces necessary for installation and storage of equipment</li> <li>Office space and necessary facilities for the Japanese experts</li> <li>Other facilities mutually agreed upon as needed</li> </ul>	<ul style="list-style-type: none"> <li>Project office for Japanese experts and the counterparts in Kumasi and Tamale                      Kumasi: One room for usual work (9 desks) and for small meeting (1 table set), one conference room for middle size meeting (4 long tables and 10 seats, etc), one reception (1 desk and 1 table set) and one small storage for equipment and one middle storage. Sometimes the shared MOFA Conference room (seats below 30) is used for our small members).</li> <li>Tamale: One room for usual work (4 desks) and one room for usual work and small meeting (3desks, 1 big table and several chairs).Sometimes the shared MOFA Conference room (seats below 30) is used for our small members).</li> </ul>														
5-2-4. Local expenses	<ul style="list-style-type: none"> <li>Local Expenses (As of 31<sup>st</sup> January, 2012) Unit: GHS</li> </ul> <table border="1" data-bbox="862 678 2016 853"> <thead> <tr> <th>Year 2009 (Jul. - Dec.)</th> <th>Year 2010 (Jan. - Dec.)</th> <th>Year 2011 (Jan. - Dec.)</th> <th>Total Amounts</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>-</td> <td>Approved amount 502,600.00</td> <td rowspan="3">434,497.11 (as expenses on Year 2011)</td> </tr> <tr> <td></td> <td></td> <td>Balance (dated 2012/1/31) 68,102.89</td> </tr> <tr> <td></td> <td></td> <td>Expense-2011 434,497.11</td> </tr> </tbody> </table> <p>Source: from MOFA</p> <p>In addition, common service expenses for electricity, water, etc. are disbursed by the MOFA.</p>	Year 2009 (Jul. - Dec.)	Year 2010 (Jan. - Dec.)	Year 2011 (Jan. - Dec.)	Total Amounts	-	-	Approved amount 502,600.00	434,497.11 (as expenses on Year 2011)			Balance (dated 2012/1/31) 68,102.89			Expense-2011 434,497.11
Year 2009 (Jul. - Dec.)	Year 2010 (Jan. - Dec.)	Year 2011 (Jan. - Dec.)	Total Amounts												
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		Balance (dated 2012/1/31) 68,102.89													
		Expense-2011 434,497.11													

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**Annex 6: Equipment List**

No.	Date of registration D/M/Y	Name of Equipment	Specification	Qty	Unit Price	Place to keep (User)	Condition	Usage
1	28/7/2009	Vehicle	TOYOTA Prado GX	2	USD 43,597.00	Kumasi, Tamale (JP Experts, CP)	A	A
2	28/7/2009	Vehicle	NISSAN 4WD Double Cabin Pick-up	2	USD 21,945.00	Kumasi, Tamale (CP)	A	A
3	17/9/2009	Digital Projector	EPSON EB-X62	1	GHS 1,218.75	Kumasi (JP Experts, CP)	A	A
4	5/11/2009	Desktop Computer	Dell PC SC440	12	GHS 1,140.00	Kumasi, Tamale (JP Experts, CP)	B	A
5	5/11/2009	Laptop Computer	TOSHIBA Satellite	4	GHS 1,200.00	Kumasi, Tamale (JP Experts, CP)	B	A
7	14/11/2009	Air Conditioner	Western 2.5 HP	2	GHS 1,350.00	Tamale (JP Experts, CP)	A	A
8	1/12/2009	Printer	HP P3005dn (Black&White)	1	GHS 2,737.83	Kumasi (JP Experts, CP)	B	A
9	1/12/2009	Printer	HP CP3525dn (Colour)	1	GHS 2,969.62	Kumasi (JP Experts, CP)	B	A
10	10/12/2009	Printer	HP P2015dn (Black&White)	1	GHS 850.00	Tamale (JP Experts, CP)	B	A
11	18/12/2009	Air Conditioner	LG 2.5HP	1	GHS 1,299.00	Kumasi (JP Experts, CP)	A	A
12	3/2/2010	GPS	GARMIN 76CSx	1	GHS 1,190.00	Kumasi (JP Experts, CP)	B	D
13	3/2/2010	GPS	GARMIN eTrex Legend Cx	1	GHS 995.00	Tamale (JP Experts, CP)	B	D
14	3/2/2010	Digital Camera	Canon Powershot A480	2	GHS 530.00	Kumasi, Tamale (JP Experts, CP)	C,D	B,D
15	3/2/2010	Video Camera	Panasonic SDR-H50	2	GHS 1,030.00	Kumasi, Tamale (JP Experts, CP)	B	C
16	9/2/2010	Network HDD	Freecom Network HDD1TB	1	GHS 538.00	Tamale (JP Experts, CP)	B	A
17	10/2/2010	Photocopier	IR3235N	2	GHS 16,770.00	Kumasi, Tamale (JP Experts, CP)	B	A
18	11/2/2010	Digital Projector	Sony Digital Projector	1	GHS 1,600.00	Tamale (JP Experts, CP)	B	A
20	24/3/2010	Vehicle	NISSAN Patrol 4WD Station Wagon	1	USD 44,441.00	Kumasi, Tamale (JP Experts, CP)	A	A
21	24/3/2010	Motorbike	YAMAHA AG100	7	USD 3,538.00	Kumasi, Tamale (AEA)	A	A
22	16/4/2010	Air Conditioner	Whirlpool 2.5HP	2	GHS 1,520.00	Kumasi (JP Experts, CP)	A	A
23	16/4/2010	Air Conditioner	Whirlpool 2.0HP	1	GHS 1,200.00	Kumasi (JP Experts, CP)	A	A
24	22/4/2010	Stabilizer	Binatone 10000VA	2	GHS 550.00	Kumasi (JP Experts, CP)	A,D	A,D
25	3/6/2010	Survey Set	Sokkia new automatic Level C320	1	GHS 2,627.00	Kumasi, Tamale (JP Experts, CP)	A	D
26	12/10/2010	Printer	HP LaserJet CP1515n	1	GHS 695.00	Tamale (JP Experts, CP)	B	A
27	26/10/2010	Monitor	Dell S2409W	1	GHS 623.00	Kumasi (JP Experts, CP)	A	A
28	30/11/2010	Motorbike	HONDA XL125 ON/OF Road	7	USD 3,298.00	Kumasi, Tamale (AEA)	B	A
29	19/1/2011	Post Harvest	Grain Moisture Riceter F501	1	JPY 41,000.00	Kumasi (JP Experts, CP)	A	D
30	25/2/2011	Network HDD	Segate 1TB	2	GHS 560.02	Kumasi, Tamale (JP Experts, CP)	B	A
31	2/3/2011	Post Harvest	Sample Divider	1	JPY 123,795.00	Kumasi (JP Experts, CP)	A	D
32	2/3/2011	Post Harvest	Rigidity tester	1	JPY 168,000.00	Kumasi (JP Experts, CP)	B	D
34	31/3/2011	Laser Finder	Laser Technology Trupulse 200	2	GHS 1,083.45	Kumasi, Tamale (JP Experts, CP)	B	D
35	25/9/2011	Laptop Computer	Dell inspiron N5040	1	GHS 2,450.00	Kumasi (JP Experts, CP)	A	A

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36	6/10/2011	UPS	APC BR1100C1	1	GHS 514.60	Tamale(CP)	A	A
37	24/10/2011	Miller	SB100	2	GHS 2,500.00	Kumasi, Tamale(JP Experts, CP)	A	D
37	24/10/2011	Miller	SB30	1	GHS 1,400.00	Kumasi(JP Experts, CP)	B	D
38	24/10/2011	Destoner	JLX-280	2	GHS 2,200.00	Kumasi, Tamale(JP Experts, CP)	B	D
39	31/10/2011	Digital Camera	Nikon coolpix S2500	10	GHS 3,791.15	Kumasi, Tamale(JP Experts, CP)	A	D
40	7/11/2011	Stone Picker	P Type	1	JPY 78,000.00	Kumasi(JP Experts, CP)	A	D
41	7/11/2011	Huller	Model -FS20	1	JPY 167,500.00	Kumasi(JP Experts, CP)	A	D
42	7/11/2011	Rice Cleaning Machine	Marumaster NX-5B Type	1	JPY 121,000.00	Kumasi(JP Experts, CP)	A	D

Category of Condition (Annual average)

- A: Excellent
- B: Fair
- C: Poor
- D: Unable to use

Category of Usage (Annual average)

- A: Every week
- B: Every other week
- C: Every month
- D: Less than every month

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## List of Project Products

- 1) Project Brochure and Reports**  
 Power point presentation material on the Project outline  
 Project annual report for 2010 and activity plan for 2011  
 Project annual report for 2011 and activity plan for 2012  
 Outline of the Project (Japanese version)  
 Outline of the Project (English version)  
 Trifold leaflet on the introduction of the Project activity (Japanese version)  
 District Project activity reports January - July 2011  
 District Project activity reports for 2011 and activity plans for 2012
- 2) Land Development**
1. Study reports/survey products
    - 1) 14 Trial plots area calculation
    - 2) 2 Topographic maps (Mpasatia and Subriso)
    - 3) Classification of land development in Ashanti region (under preparation)
    - 4) 5 days rainfall data analysis (7 districts)
    - 5) Cross section survey at target valley/lowland
    - 6) Land undulation survey at Nachimbiya, NR and Kensakrom, AR
    - 7) Bunds construction test using tractor and simple tools, NR
  2. Text and Teaching Materials
    - 1) Note on leveling survey for LD CPs
    - 2) Sensitization note on land development (LD process record) Kensakrom, Mpasatia and Katabo, AR
    - 3) Land development training text for AEA, DDOs and RCPs (25 texts)
    - 4) Land development training text for farmers (3 texts)
    - 5) Preparation of land development manuals (under preparation)
  3. Land Development Tools
    - 1) Wooden round type compactor for NR and AR
    - 2) Wooden compactor for bunds side compaction for NR and AR
    - 3) Hand leveler for AR
  4. Others
    - 1) Land development training plan for C/Ps, RCP, DDO, AEA and farmers
    - 2) Installation of temporary bench mark for leveling survey at 14 sites (out of 15 pilot communities)
    - 3) General layout of dugout
    - 4) Installation of flood water level measurement instrument (15 sites)
    - 5) Installation of underground water level measurement instrument (28 sites)
    - 6) Review of existing technologies on rice production under rain-fed condition (under preparation)
- 3) Rice Cultivation Technology**  
 Pre-Evaluation of Rice Cultivation Techniques  
 Seed production and supply (under preparation)  
 Methods of Yield component survey  
 Measuring procedure of moisture meter  
 Upland lowland rice cultivation (in the make) [Manual of technical package]  
 Weed Management  
 Leaflet for DDO/AEA ("How is Yield Determined?")  
 Push weeder  
 Line drawer for drilling  
 Triangle hoe for line making  
 Weeding hoe
- 4) Farming System Management**  
 2009 farming survey format  
 2010 production survey format  
 Access database on 2009 farming survey  
 Access database on 2010 production data  
 Action plans of the trial plots for 2010 cropping season  
 Action plans of the trial plots for 2011 cropping season  
 Trial plot activity managing schedule format  
 Land tenure agreement format for the trial plots  
 Credit in kind agreement format with farmers' groups  
 Farming record calendar for Ashanti region  
 Activity plan on the post-harvesting section of the Project  
 Activity plan on the marketing section of the Project

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Action plans of the trial plots for 2011 cropping season  
 Trial plot activity managing schedule format  
 Land tenure agreement format for the trial plots  
 Credit in kind agreement format with farmers' groups  
 Farming record calendar for Ashanti region  
 Activity plan on the post-harvesting section of the Project  
 Activity plan on the marketing section of the Project  
 Teaching materials for the farming management part of the joint training  
 Teaching materials for the technical training on farming support activities in Ashanti region  
 Logo for the brand rice  
 Label for the brand rice package  
 Packaged brand rice  
 Rice husk stove  
 Rice grading sieve  
 List of candidates for the rice quality improvement forum  
 List of major market enumerators  
 Database on 2005 - 2009 production data released by MOFA  
 Database on market price of grains in local markets between 2005 to 2009  
 Analyzed report on farming management data of project farmers by a short term expert  
 Consumer survey results analyzed by a marketing short term expert  
 Farmer survey results on post-harvest and marketing by short-term experts

**5) Extension**

District Rice Extension Plan/Strategy in targeted Districts  
 (ASH) District Rice Extension Plan Asante Akim North  
 (ASH) District Rice Extension Plan Ahafo Ano North  
 (ASH) District Rice Extension Plan Atwima Mponua  
 (ASH) District Rice Extension Plan Adansi South  
 (NOR) District Rice Extension Plan West Mamprusi  
 (NOR) District Rice Extension Plan Tamale Metropolitan  
 (NOR) District Rice Extension Plan East Gonja  
 Slides for Group Cohesion and Organization  
 Slides for Group Cohesion and Organization  
 General Information on Competition  
 General Information on Field Trip  
 General Information on Field Day  
 General Information on Joint Training  
 Extension Analysis Report (in progress)  
 Draft Guideline on Extension (in progress)  
 2010 Goods: Polo Shirts (White), Cap  
 2011 Goods: Polo Shirts (Yellow, Green, White), Cap, Mug Cup, Diary, Pen

**6) Technical Manual (the list of manual which has been produced under the Project are given as below.)**

Pre-Evaluation of Rice Cultivation Techniques  
 Seed production and supply (in the make)  
 Methods of Yield Component Survey  
 Measuring Procedure of Moisture Meter  
 Upland lowland rice cultivation (in the make) [Manual of technical package]  
 Teaching materials for weed management  
 Teaching materials on "How is Yield Determined?"

**7) Others**

Activities of Trial Plot in Ashanti & in Northern 2010  
 Activities of Trial Plot in Ashanti & in Northern 2011  
 Rice Yield in the Trial Plots 2010  
 Provisional Rice Yield Data 2011 Ashanti Region & Northern Region  
 Change in moisture Content of Paddy in Storage  
 Tentative Growth Stages and Working Schedule in the model sites

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**Annex 8 Progress and Results on the Project Activities based on PO**

<p>Output 1. Technical Package of improved rain-fed lowland rice production practices is developed.</p>	<ol style="list-style-type: none"> <li>1. Based on the selection criteria by the Project, seven pilot districts and two model sites in each district were identified and selected.</li> <li>2. Information of land development and existing rice crop technology of rain-fed lowland rice production were collected and analyzed. The information and good practices were utilized in the Project activities and shared the technical information with C/Ps.</li> <li>3. In 2010, 14 trial plots were established (6 in Northern Province and 8 in Ashanti Province). In 2011, establishment of 42 trial plots were planned, and 38 trial plots including previous year ones were established. In all trial plots, adequate land development and rice cultivation techniques in accordance with the water accessibility were applied.</li> <li>4. The adaptable and applicable technologies of land development and rice cultivation for famers were verified.</li> <li>5. Basic information such as geographical and hydrological data, water accessibility and soil condition were collected and applicable area of the technical package was clarified.</li> <li>6. Average of the rice yield from trial plot in 2010 was 4.1t/ha in Ashanti and 3.3t/ha in Northern. In 2011, it was 5.6t/ha (5.0t/ha) in Ashanti and 3.3t/ha (3.4t/ha)<sup>1</sup> in Northern.</li> </ol> <p>Through the first two and half years, the technologies which most famers can applicable and adoptable were introduced. Mostly those technologies are manual ones. As the result of practice in trial plots, the basic framework of the technical package which enables farmers to increase their rice products, and also keep quality and stability is confirmed.</p>
<p>Output 2 Methodology to improve farming support system for sustainable rain-fed lowland rice production is verified.</p>	<ol style="list-style-type: none"> <li>1. Since the dispatch of JICA expert on "Farming System Management" has not been materialized yet, the progress of the activities in farming system management was not attained as planned. Moreover, the more focus had to be placed on the activities related to the "Improved Technical Package" at the initial stages of the Project, so that the achievements in this section have been limited to the basic parts of each component lead by short-term experts and C/P in charge</li> <li>2. Activities conducted are as follows.             <ol style="list-style-type: none"> <li>1) Trainings on farming management targeted on AEAs were conducted.</li> <li>2) Action plan to manage trial plot was prepared by group farmers and they managed it jointly based on the plan.</li> <li>3) Initial preparation was done to establish Rice Quality Improvement Forum.</li> </ol> </li> </ol>

<sup>1</sup> The number in bracket is the result including the plot where did not harvest any at all due to the flood or discontinuation of farmers.

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	<ol style="list-style-type: none"> <li>4) Calendar type farming record was distributed to group farmers</li> <li>5) Strategy and specific activities on Post-harvesting and Marketing were proposed by short-term experts based on several surveys.</li> <li>6) Some components of milling and parboiling technics were improved by the short-term experts. The concept of packaged brand rice without stones was introduced in order to strengthen the market competitiveness of local rice.</li> <li>7) The packaged brand rice without stones was produced and exhibited at the Farmers' day event.</li> </ol> <p>The activity on credit in kind scheme adopted from the Block Farming Program of MOFA was conducted with some of the group farmers</p>
<p>Output 3 Extension procedure for sustainable rain-fed lowland rice development is established</p>	<ol style="list-style-type: none"> <li>1. Activities in 2010 are as follows. <ol style="list-style-type: none"> <li>1) A series of "Field Days" were carried out.</li> <li>2) On-site technical trainings were conducted.</li> <li>3) Information sharing among the farmer groups was accelerated.</li> </ol> </li> <li>2. Activities in 2011 are as follows. <ol style="list-style-type: none"> <li>1) PRA Trainings for farmers to make group action plan were conducted.</li> <li>2) Trainings for DDOs and AEAs to support for grouping of farmers were conducted.</li> <li>3) Trainings on rice crop technology and dissemination method were conducted.</li> <li>4) On-site technical trainings were conducted.</li> <li>5) Rice extension policy and anural action plan were introduced/prepared in 7 districts. And based on the plan, AEAs and DDOs offered extension service.</li> <li>6) Monitoring and reporting method were introduced, and district level analytical reports were prepared.</li> <li>7) A series of Competition among trial plots, individual farmers, AEAs and districts were conducted.</li> </ol> </li> </ol>

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Annex 9. Attainment of Objectively Verifiable Indicators described in PDM

Subscribed on the date: Feb 2012

Outputs	Objectively Verifiable Indicators	Attainment/Results/Progress/Conditions at Mid-term Review
1a	The average unit yield of trial plots in model sites is increased to more than 4.0 ton/ha in Ashanti and 3.0 ton/ha in Northern region. Also, the average unit yield of demo plots in priority sites is increased to more than the average yields of each district.	The average yields of trial plots in 2010 were 4.5t/ha (4.0t/ha) in Ashanti region and 3.3t/ha (2.9t/ha) in Northern region, and those of 2012 were 5.6t/ha (5.0t/ha) in Ashanti region and 3.6t/ha (3.4t/ha) in Northern region respectively, which are much higher than the yield levels before the Project started. (The figures in parentheses indicate the average yields including the low or zero production results of the trial plots mainly caused by flood/drought in the areas). The demo plots in priority areas shall be set up during the second phase of the Project, and sample yield survey will be conducted with approximately 10 households in each district.
1b	The quality of rice produced by farmers who utilize the recommended techniques is improved in the model sites. (seed quality and seed production, etc)	Conventionally, low yield and quality of rice were predominant characteristics of local rice farming. The Project provided the basic seed of "Jasmine 85" produced by CRI to the trial plots in order to achieve a uniform rice growth without off-types and secure a high quality seed for the following cultivation seasons. As a result of this provision, the rice yield and quality of the trial plots have been improved significantly. In addition, seed plot were established in each trial plots in order to produce the seed for the following season. Furthermore, by removing off-types and unhealthy plants from the plots for four times in a season have secured the quality of the seed. The Project continues to carry out the technical guidance on quality seed production in the trial and demo plots.
1c	The manuals of technical package are compiled, and made available to stakeholders.	Concerning to the progress on producing manuals on technical packages, the first version of the manual on Cultivation Technology will be finalized before the time on trainings in March, 2013.
2a	Formation of Rice Quality Improvement Forum and its results (Based on 2012 Annual Plan, the Project team will confirm and determine this indicator by April 2012, and will finally approved by the SC meeting in 2013)	The establishment of the "Rice Quality Improvement Forum" has been initiated by DADU assisted by the Project. The member list of the Forum consisted of rice farmers, wholesalers, tractor owners and so on was drafted by DADU. The Project focuses on mediating the members of the Forum and facilitating to hold a regular meeting. The Forum aims to coordinate among the participants in order to provide rice-related information and opportunity to improve the rice value chain network in the respective district.
2b	Based on farming condition in each plots, the rice cultivation calendar is prepared, and utilizing the calendar, the action plan is prepared and agreed by each community.	The Group farmers (GF) in the model sites have produced their action plan for last two years, and the trial plots have been managed by the GFs in accordance with their action plan. However, rice cultivation calendar does not exist in the rice farmers and the community in the model sites. The calendar should be drafted in these sites, so the first step will be introducing the calendar in the collaboration with DADU, AEA, and farmers. Then, the calendar should be agreed upon with each community. Also, the farmers in priority sites will draft their action plan which reflected based on the result of previous year's cultivation. Then, they will manage their plots of fields in accordance with their action plan referred by the calendar.
2c	XX numbers & good example of farmers and farmer's groups' activities on value-added related to rice farming support system (Based on 2012 Annual Plan, the Project team will confirm and determine this indicator by April 2012, and will finally approved by the SC meeting in 2013)	<p>Within the "Farming Support System" framework, the Project focuses on the value-added through the higher yield production, but also upgrading the quality of rice with better selling. To attain the objective, the Project will monitor the self efforts activities of rice farmers and farmers' groups in the Project areas, and also support their activities.</p> <p>In Northern region, extension was conducted in each CF with 3 communities of trial plots. The CFs contended their techniques among them, and supplemented each other techniques. Due to these activities, most of trial plots gained the increasing their production, even though there were differences of the amount of production among plots. On the other hand, the CFs needed to rental tractors for cultivating wide range of the lands. AEAs and the Project provided information related to rice production, and mediate for renting tractors. Farmers have understood the necessity of collectively renting tractors with other farmers in order to avoid wasting the timing of cultivation. It could be expected that farmers will jointly rental tractors in the coming year. The Project will continue to focus on removing limited factors for farming. Therefore, the Project shall continue to provide information on farming management and play a role of a mediator/facilitator.</p> <p>In Ashanti region, rice farmers tend to avoid jointly working and they prefer to conduct rice production by themselves. The Project do not conduct the same approach of joint-working/grouping farmers in case of Northern region, but the Project focus on strengthening farming ability. In case of the Project, some members in the group abandoned rice production, because of gold mining near their fields, and conflict among them for securing water in another case. However, the Project is planning to continue to support farmers who wish to individually conduct rice production.</p>
2d	The manual for improving the farming support system is produced and made available to stakeholders.	According to the Plan of Operation, the draft manual of farming support system will be started in the year 2012. The completed activities of the Project until now, such as drafting action plan, land tenure agreement, milled rice system, technique of parboiling rice, credit in kind agreement, packaged brand rice etc., through those activities, there will be possible to ready for compiling into manuals and made available to stakeholders at any time.
3a	The trainings for farmers and relevant agricultural stakeholders and district/AEA officials of the rice extension are conducted in XX types/ XX times/ XX persons (Based on 2012 Annual Plan, the Project team will confirm and determine this indicator by April 2012, and will finally approved by the SC meeting in 2013)	The trainings in Ashanti region were conducted in 8 times, which 149 people participated in total. Also, the trainings in Northern region were conducted in 8 times, 138 participants in total. In addition, joint trainings were also conducted in 2 times, and 69 participants in total. After these trainings, there were also conducting hands-on trainings by self efforts on district initiatives. These trainings were for AEAs and DDOs who are not the stakeholders of the Project. Follow up and continuous technical advice are going on by the Project, such as regular monitoring whether the trainees can apply the techniques into their lands, and transfer additional techniques. Within the Project, the training for trainers (ToT) is also planned. In other activities, Farmer's day, Field visit, and Contest are also implemented as effective extension methods.

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3a	The trainings for farmers and relevant agricultural stakeholders and district/AEA officials of the rice extension are conducted in XX types/ XX times/ XX persons (Based on 2012 Annual Plan, the Project team will confirm and determine this indicator by April 2012, and will finally approved by the SC meeting in 2013)	The trainings in Ashanti region were conducted in 8 times, which 149 people participated in total. Also, the trainings in Northern region were conducted in 8 times, 138 participants in total. In addition, joint trainings were also conducted in 2 times, and 69 participants in total. After these trainings, there were also conducting hands-on trainings by self efforts on district initiatives. These trainings were for AEAs and DDOs who are not the stakeholders of the Project. Follow up and continuous technical advice are going on by the Project, such as regular monitoring whether the trainees can apply the techniques into their lands, and transfer additional techniques. Within the Project, the training for trainers (ToT) is also planned. In other activities, Farmer's day, Field visit, and Contest are also implemented as effective extension methods.
3b	In line with the district rice extension plan, extension activities, monitoring and evaluation are carried out at the target seven (7) districts.	The 8 trial plots in Ashanti region and the 6 trial plots in Northern region, 14 plots in total were set at rice production of the first rainy season in 2010. Also, 38 trial plots were set in 2011. In 2012, 42 trial plots and 234 demo plots was set according to the original plan. In these plots in 7 pilot districts, annual rice extension plans were drafted in November 2011. At present, extension activities and monitoring are conducted on the basis of the plan.
3c	The guideline and manual of rice extension are produced, then made available to stakeholders.	The guideline of rice extension will be drafted in March 2012 through experiences in pilot districts.

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**Remarks : Word Definition**

**Improved technical package:** It means that the "Technical Package" is introduced and developed by the Project for rice production.

This technical package is composed of basic techniques which should be low-cost and easily applicable for farmers, which corresponds to geographic, ecological and water conditions, referring to as "Improved Technique".

The aim of the "Improved technical package" is to promote production, quality and stability of rice production. In particular, there are currently 26 practices for rice production, thus "Land Development (bunds construction, land leveling, water harvesting, etc.)", "Rice cultivation (certified varieties, quality seeds, weeding, split fertilizer application, etc.)" and so on.

**Recommended techniques:** It means basic and indispensable techniques of the Improved "technical package" while are recommended by the Project, the Project is aiming at focusing on how land development and rice cultivation are applied on the field by farmer themselves.

	Objectively Verifiable Indicators	Attainment/Forecast at Mid-term Review
Project Purpose	More than 1,000 farmers apply the recommended techniques of the "Model".	In this context, "1000" households is an indicator on rice farmers who will continuously utilize and apply the recommended techniques. Currently, the Project conduct basic techniques to 10 farmers (total 420 people) located in 14 model sites of 2 regions. In addition to the 420 people, a plenty numbers of people will be involved and the Project will conduct the activities related to rice techniques at priority sites and demo plots in the remaining of the Project period. (The actual number of plots and targeted farmers will be determined by the Project at the 2nd quarter of this year.) In total, it will be forecasting at this stage approximately more than 1,000 people of farmers who will continuously utilize and apply the recommended techniques. In spillover effects, there is a possibility that once any farmers joined in Field day or learned from the Project C/Ps and the Project materials such as media and ICT, they will start rice production as well. Moreover, other surrounding farmers may see demo and/or trial plots, and then CFs will conduct techniques to the surrounding farmers. Due to these ripple effects, the recommended techniques can be expected to expand and accelerate.
	Based on the rice extension plan in target districts, the rice extension plan of Northern and Ashanti region is produced and submitted to MOFA.	Regional C/Ps of the Project will initiate in each pilot region, and will consult to make tangible strategy and action plan with stakeholders in line with district extension plan in each. Furthermore, the regional C/Ps shall coordinate and discuss with MOFA, in order to make close linkage with national strategy and plan such as NRDS as much as possible.
	All the manuals of technical package, farming support system and extension is compiled as "Model" and made available to stakeholders.	As a result of each Output, manuals of technical package, farming support system and extension will be drafted and edited. Before the termination of the Project, the manual of "Model" will be made available to any related stakeholders. These manuals should be a form of guidebook or guideline for promoting rice production. In utilizing the Model, the guidebook aims to provide technical know-how from introduction to its adoption. Also, the guidebook should include suggestions for national rice development policy.
Overall Goal	Average unit yield in rain-fed lowland farmers in the areas who applying the recommended techniques of the "Model" is increased to more than 4.0 ton/ha in Ashanti and 3.0 ton/ha in Northern region.	In the result of the Output 1, the unit yields of the trial plot of the model site surpass value of the indicator. The Project will monitor the progress and achievement, and also verify the Model in each pilot district.
	Income from rain-fed lowland rice production is increased in the areas where the model of sustainable development of rain-fed lowland rice production is applied.	At present, there is only the sampling survey which was conducted by the short-term expert. The monitoring and evaluation of rice cultivation will be continuously analyzed and calculated to monitor the extent of the contribution to farmer's management. Then, another sampling survey shall be implemented at the terminal evaluation of the Project.

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## Steering Committee Members

## Function

- \* To approve the Annual Plan of Operations and budget under the framework of the Project
- \* To review achievements of the Annual Plan of Operations and overall progress of the Project
- \* To report a progress of the Project to GoJ and GoG

No	Organization	Designation
Steering Committee Members		
1	MOFA	Chief Director
2	MOFA	Director of Crop Service (Project Supervising Director)
3	MOFA, Ashanti	Director of Ashanti Region (Project Manager)
4	MOFA, Northern	Director of Northern Region (Project Manager)
5	MOFA	Director of Extension Service
6	MOFA	Deputy Director of Engineering Service
7	MOFA	Director of Finance and Admin.
8	MOFEP	Director of External Resource Mobilization
9	JICA	Deputy Resident Representative
10	JICA	Expert / Team Leader
11	JICA	Expert / Land Development
12	JICA	Expert / Extension
13	JICA	Expert / Rice Cultivation
14	JICA	Expert / Admin. Coordinator
Observers		
15	GIDA	Deputy Chief Executive
16	JICA	Project Formulation Adviser
17	JICA	Programme Coordinator
18	GRIB	Executive Secretary
19	NERICA	Project Coordinator / Deputy Director (CSD)
20	AfDB	Representative
21	AFD	Representative
22	FAO	Representative
23	Embassy of Japan	Second Secretary
24	JIRCAS	Regional Coordinator for Africa
25	MOFA	Project CP (Liaison Officer) in CSD
26	MOFA, Ashanti	Project CP (Schedule Officer) in A/R*
27	MOFA, Ashanti	Project CP (Rice Cultivation) in A/R*
28	MOFA, Ashanti	Project CP (Extension) in A/R*
29	MOFA, Ashanti	Project CP (Land Development) in A/R*
30	MOFA, Ashanti	Project CP (Farming System) in A/R*
31	MOFA, Northern	Project CP (Schedule Officer) in N/R**
32	MOFA, Northern	Project CP (Rice Cultivation) in N/R**
33	MOFA, Northern	Project CP (Extension) in N/R**
34	MOFA, Northern	Project CP (Land Development) in N/R**
35	MOFA, Northern	Project CP (Farming System) in N/R**

\*A/R: Ashanti Region

\*\*N/R: Northern Region

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Rice Yield in the Trial Plots 2010

Annex 11 -1

Region	District	Site	Variety	Area (m <sup>2</sup> )	Production (kg)	Yield (kg/ha)	Yield (bag/acre)
Ashanti	Ahafo Ano North	Katabo frenchman	Jasmin85	884	298	3,371	16.1
		Katabo market	Jasmin85	614	160	2,606	12.4
		Anyinasuso	Jasmin85	1,200	738	6,150	29.3
	Atima Nponua	Kensakrom	Jasmin85	436	250	5,734	27.3
		Mpasatia	Jasmin85	623	460	7,390	35.2
	Asanti Akim North	Akutuase	Jasmin85	869	320	3,682	17.5
		Atunsu	Jasmin85	800	255	3,188	15.2
	Adansi South	Subriso	Jasmin85	1,004	-	-	-
		Praso	Jasmin85	1,063	440	4,139	19.7
	Northern	Tamale Metro	Nachimbiya	Digang	3,933	1,654	4,204
Sanga			Digang	4,268	1,563	3,662	17.4
East Gonja		Kpalbe	Digang	4,588	1,647	3,589	17.1
		Gbung	Digang	2,872	635	2,209	10.5
West Mumpursi		Wungu	Digang	5,295	1,589	3,001	14.3
		Gbimsi	Digang	4,012	359	894	4.3

Average  
(Except Subriso)

Ashanti  
4.0  
4.5

Northern  
2.9  
3.3

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**Provisional Rice Yield Data 2011 Ashanti Region**

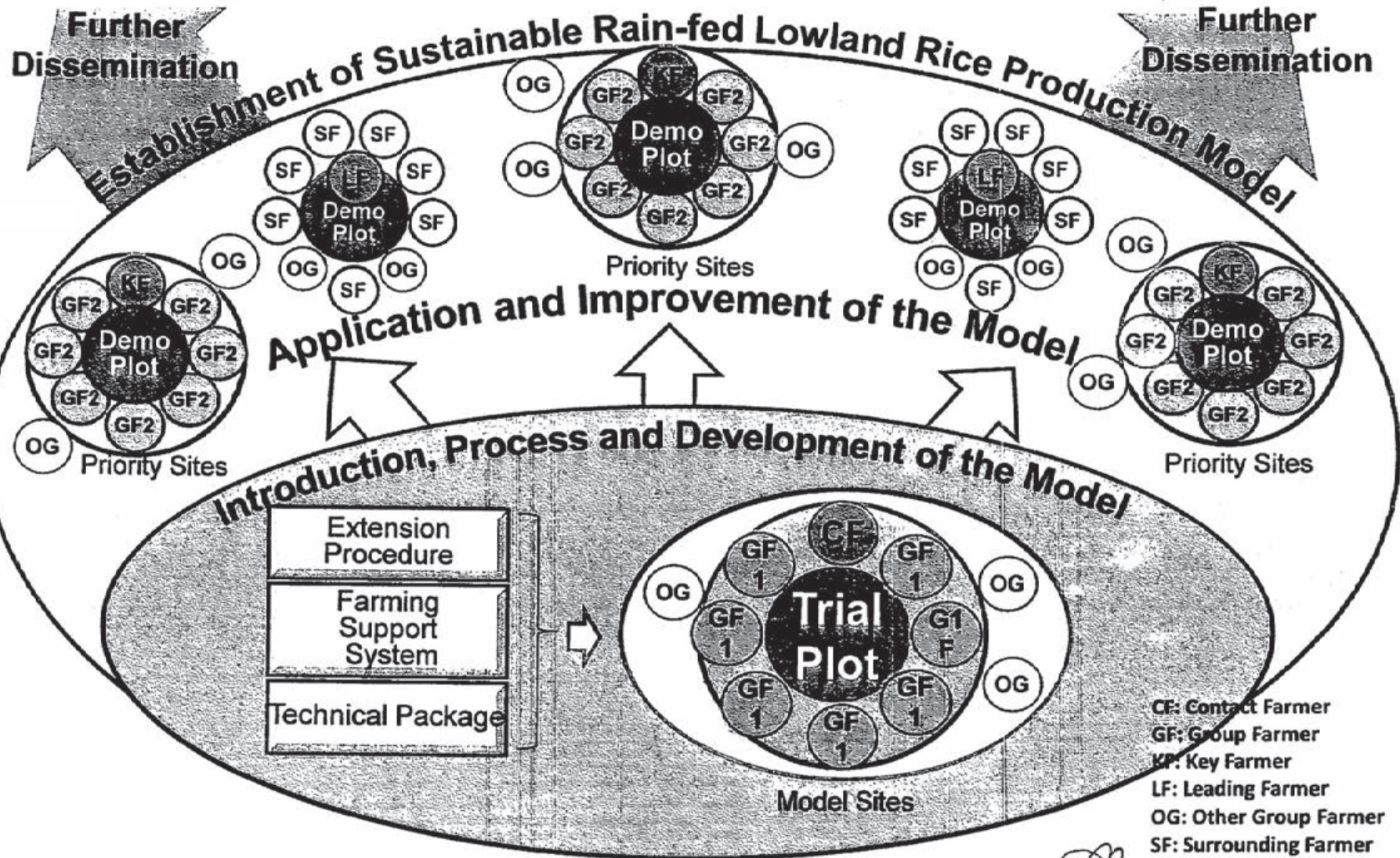
District	Community	group	Yield (t/ha)
Atwima Mponua	Kensakrom	1	6.2
Atwima Mponua	Kensakrom	2	5.9
Atwima Mponua	Kensakrom	3	6.0
Atwima Mponua	Mpasatia	1	5.8
Atwima Mponua	Mpasatia	2	6.3
Ahafo Ano North	Katabo	Market	7.7
Ahafo Ano North	Katabo	Central	6.6
Ahafo Ano North	Katabo	French	5.9
Ahafo Ano North	Anyinasuso	1	6.1
Ahafo Ano North	Anyinasuso	2	-
Ahafo Ano North	Anyinasuso	3	-
Adansi South	Subriso	1	5.9
Adansi South	Subriso	2	4.1
Adansi South	Subriso	3	5.9
Adansi South	Praso	1	4.1
Adansi South	Praso	2	4.1
Adansi South	Praso	3	0.0
Asante Akim North	Akutuase	1	5.0
Asante Akim North	Akutuase	2	5.0
Asante Akim North	Akutuase	3	4.3
Asante Akim North	Atunsu	1	3.4
Asante Akim North	Atunsu	2	4.2
Asante Akim North	Atunsu	3	3.1
	All		5.0
	Except Atunsu		5.3
	Except Praso3		5.3
			5.6

**Provisional Rice Yield Data 2011 Northern Resion**

District	Community	Name of Group	Yield (mixture 14%)
West Mamprusi	Gbimsi	Tiimarisuigu (G1)	3.7
		Badimsuguru (G2)	3.2
		Dintige (G3)	3.2
	Wungu	Tinsungtaaba (G1)	3.0
		Kpanmenga (G2)	4.6
		Tidoliba (G3)	2.5
East Gonja	Kpalbe	Wunzalgu	4.3
		Zaapayin (G2)	5.0
	Gbung	Yebo Biyooda (G1)	3.6
Tamale Metro	Nachimbiya	Tibobamsi (G1)	2.7
		Suglo Konbon (G2)	3.3
		Gubli Nye yaa(G3)	4.1
	Sanga	Böbgu Veilla (G1)	3.9
	Sanga	Suglo Nburibuni (G3)	1.0
		Average	3.4
		Average except Sanga G3	3.6



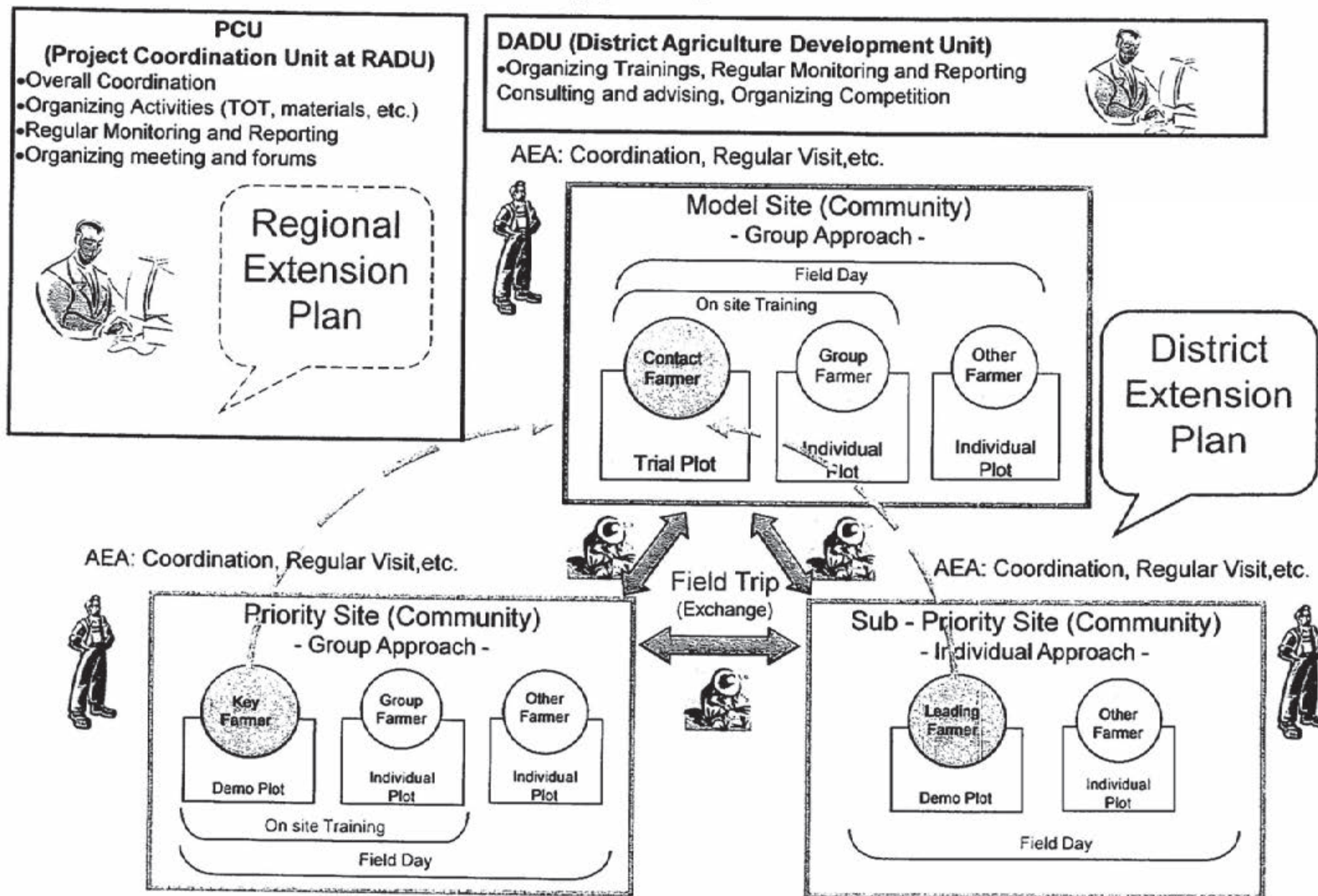
# Concept of the Project Framework



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Ver.3.1 (3) [Framework of Extension Approach]

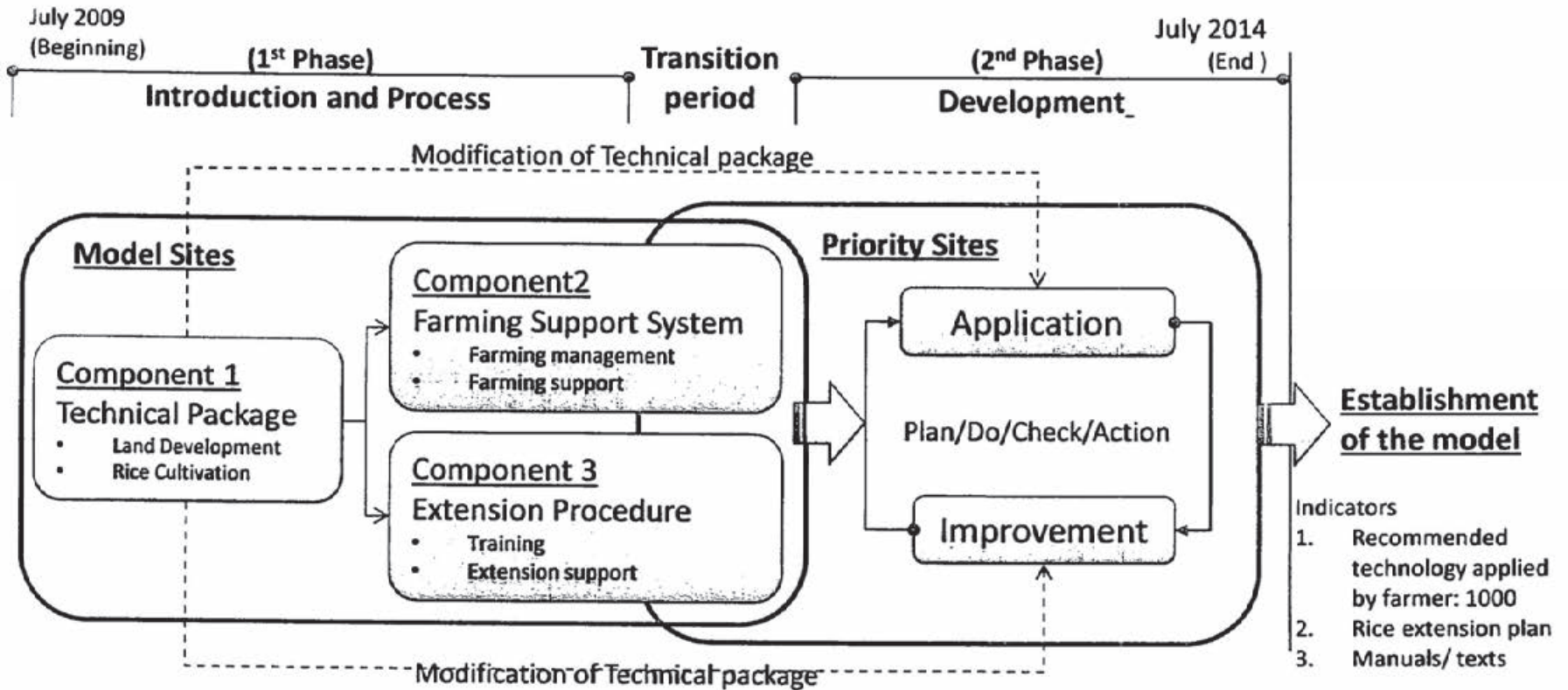


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## Project Phases and Indicators for Sustainable Rain-fed Lowland Rice Development Model



Target Area	7 dist. (3 dist. NR, 4 dist. AR)
Yield	4.0 t/ha AR, 3.0 t/ha NR
No. of site	42 trial plots at 14 model site (2 site/dist. x 7 dist.)
No. of farmers	420 Farmers (10psix3Gpx14sites)

- Indicators
1. Recommended technology applied by farmer: 1000
  2. Rice extension plan
  3. Manuals/ texts

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