CAPACITY BUILDING PROJECT FOR THE IMPLEMENTATION OF THE EXECUTIVE PROGRAMME FOR THE AGRICULTURAL REVIVAL
BACKGROUND

Capacity Building Project for the Implementation of the Executive Programme for the Agricultural Revival was launched by Federal Ministry of Agriculture and Irrigation (FMoAI) of the Sudanese Government with cooperation by Japan International Cooperation Agency (JICA) in March 2010. Through this 4-year project, FMoAI and JICA are aiming to strengthen human and organizational capacities of FMoAI, Ministries of Agriculture in State levels and the relevant organizations to materialize “The Executive Programme for the Agricultural Revival” for Sudan. In addition to agricultural ministry staff members at the federal and state levels as well as farmers are benefiting from this project.

PROJECT PURPOSE

Human and organizational capacity of the Ministry of Agriculture and the organizations concerned is strengthened to materialize “The Executive Programme for the Agricultural Revival.”

ACTIVITY 1 AND OUTPUTS/OUTCOMES

DEVELOPMENT OF MODEL SYSTEM ON A CAPACITY DEVELOPMENT FOR HUMAN RESOURCES AND ORGANIZATION IN THE MINISTRY OF AGRICULTURE

<table>
<thead>
<tr>
<th>Output 1</th>
<th>Output 2</th>
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<tbody>
<tr>
<td>Through the experimental activities of the Project, a model system of human resource development and organizational capacity development of the Ministry of Agriculture has been developed.</td>
<td>Planning, implementation, monitoring &amp; evaluation for promotion of rice production are enhanced.</td>
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<table>
<thead>
<tr>
<th>ACTIVITY 1</th>
<th>ACTIVITY 2</th>
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<tbody>
<tr>
<td>Individual Capacity Building</td>
<td>Support for Rice Sector Development</td>
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<tr>
<td>Organizational Capacity Building</td>
<td>Assist to formulate National Rice Development Strategy</td>
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<tr>
<td>Information Management</td>
<td>Assist to formulate a roadmap to solve bottleneck issues to develop rice sector</td>
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<table>
<thead>
<tr>
<th>Irrigated Upland Rice Cultivation</th>
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<tbody>
<tr>
<td>Field Trial</td>
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<tr>
<td>Seed Production</td>
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<td>Demonstration Farms</td>
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<td>Training</td>
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ACTIVITY 1

<table>
<thead>
<tr>
<th>1st Year</th>
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<tr>
<td>Awareness raising and basic skill training</td>
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<thead>
<tr>
<th>2nd Year</th>
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<tbody>
<tr>
<td>Basic training and Practice</td>
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<tr>
<td>1. Individual Capacity Building:</td>
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<tr>
<td>2. Organizational Capacity Building:</td>
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<tr>
<td>3. Task Team Activity in TU and TTEA</td>
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<td>- Information Working Group</td>
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<tr>
<th>3rd Year</th>
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<tr>
<td>Training to Utilization</td>
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<tr>
<td>1. Individual Capacity Building:</td>
</tr>
<tr>
<td>2. Advanced Training Courses</td>
</tr>
<tr>
<td>3. Task Team Activities in PAE, HSA, TTEA, TU</td>
</tr>
<tr>
<td>- Information Working Group</td>
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<tr>
<th>4th Year</th>
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<tr>
<td>Utilization to Internalization</td>
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<tr>
<td>1 + 2 Internalization of developed capacity through</td>
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<tr>
<td>- Task Team activities and CB Working Group</td>
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<tr>
<td>- Information Working Group</td>
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</tbody>
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Basic Concept

- PCM: Project Cycle Management
- M&E: Monitoring and Evaluation
- Basic Training: In-class training only
- Advance Training: In-class training & Action plan implementation

Capacity Assessment

CB: Capacity Building
HSA: Horticulture Sector Administration
ICI: International Cooperation and Investment Directorate
PAE: Planning and Agricultural Economics Directorate
TTEA: Technology Transfer and Extension Administration
TU: Training Unit
Individual Capacity Building

1st Year (2010)

Implemented Training
- Basic -
  ● PCM Planning & Formulation
  ● TOT for PCM
  ● Leadership
  ● Basic Management
  ● English
  ● IT

232 participants from FMoAI

2nd Year (2011)

Implemented Training
- Basic -
  ● PCM Planning & Formulation
  ● PCM M&E
  ● TOT for PCM
  ● Leadership
  ● Basic Management
  ● Feasibility Study

- Advanced -
  ● Negotiation
  ● Coordination

545 participants from FMoAI and Gezira & White Nile States

3rd Year (2012)

Implemented Training
- Basic -
  ● PCM Planning & Formulation
  ● PCM M&E
  ● Feasibility study

- Advanced -
  ● Agricultural Policy Formulation
  ● Quality Control
  ● Strategic Management

240 participants from FMoAI and Gezira & White Nile States

In basic course (PCM), participants conducted Problem Analysis.

In advanced course (Agricultural Policy Formulation), participants presented action plan.

In basic course (Feasibility Study) in Gezira State Ministry of Agriculture

Same as on the left (Closing Ceremony)
3rd Year’s Training Concept:

“Training to Unitization”

- Post In-class Training: making Action Plan
- In-class Training
- Application of Trained skills and knowledge
- Monitoring and Evaluation of their own action plans
- Presentation of their action plan, implementation and outcome to the Seniors

< Efforts of the ‘Quality Control Unit’ after In-class Training on ‘Quality Control’ >

Action plan to ‘Improve Awareness Procedure about System in Farm’

Budget allocated by Undersecretary FMoAI

Collecting the related systems

Establishing Criteria for selected systems

Identifying and preparing the selected systems for the awareness

Selection of awareness methodologies in corporation with TTEA

Improvement of library and electronic library

Monitoring & Evaluation

The formed team members during/after the training, with Project Local Consultant (on the right)
Organizational capacity building activities through ‘On the Job Training’ were commenced in 2011. In 2012, one Task Team was formed in each Directorate of PAE, TTE and HSA in FMoAI based on its own initiative. The Task Team is expected to become a change agent to build capacity of its own directorate through formulating and implementing the long term action plan and monitoring & evaluation together with members in the Directorate/unit.

**Toward “Improvement of Staff Performance in Coordination and Monitoring and Evaluation” (HSA Directorate FMoAI)**

- HSA Task Team
- Weekly Monitoring Meeting
- Social activities
  - Family Day (3 times a year)
  - Managerial Day (monthly)
- Software training (3 times a year)

**Formulation of action plan for the year 2013**
- PAE
- TTE
- HSA
As a part of the organizational capacity building, information management working group was established in April 2011. Working group members formulated action plan in order to improve the current information management in the FMoAI in 2011 and the action plan is actively being implemented.

The aggregated result of Capacity Assessment shows that the Group 2010 (4.3) cleared the Target level, and Group 2011 (3.9) almost reaches to it.

Indicators of Capacity Assessment
- Level 5: To utilize the capacity for project work and make countable positive impact
- Level 4: To utilize the capacity for daily work
- Level 3: To have skill and knowledge
- Level 2: To have interest
- Level 1: Do not have any interest

The Result of Capacity Assessment

Capacity Assessment (HSA)
Support for Rice Sector Development

NRDS is the first strategy to develop rice sector in Sudan, which has been drafted by cooperation with the JICA Project.

Roadmap to solve ‘Bottleneck Issues’ on rice production

1st Rice Sector Development Forum
Field Trial at UmBarona site in Gezira State in 2012

1. Irrigation Interval (Frequency) Trial
   To identify appropriate irrigation interval for cultivating upland rice (e.g. 1time/3days, 1time/5days, 1time/7days)

2. Weed Control Trial
   To identify effective weed control method for cultivating upland rice (e.g. Herbicide application, Manual weeding)

3. Plant Spacing Trial
   To identify appropriate plant spacing for cultivating upland rice (e.g. 15cm, 20cm, 25cm, 30cm)

4. Sowing Time Trial
   To obtain information to know optimum sowing time in summer season for cultivating upland rice (e.g. every 2-week sowing)

Result of trial (By Sampling)
8.2 ton/ha = 3.5ton/feddan
NERICA is a name of the variety standing for ‘New Rice For Africa’ which developed by WARDA (West Africa Rice Development Association) located in Cote d'Ivoire.
Training including Field Day and Wrap up Meeting in State MoA

On the Job Training in Demonstration, Seed Production and Trial Sites

Study Trip in Japan

Training in Uganda For extensionists

Wrap up Meeting

Field Day in Gezira State
**Yield Result of Demonstration Farms in Gezira State in 2012**

<table>
<thead>
<tr>
<th>Demo Site</th>
<th>Area (Fed)</th>
<th>Yield (Whole area) (kg/ha)</th>
<th>Yield (Sampling) (kg/ha)</th>
<th>Yield (Sampling) (kg/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amara Taha(1)</td>
<td>4</td>
<td>2552</td>
<td>1070</td>
<td>2728</td>
</tr>
<tr>
<td>Abu Juwali</td>
<td>4</td>
<td>3112</td>
<td>1310</td>
<td>3957</td>
</tr>
<tr>
<td>Al garia 44 Block 9 Rahad</td>
<td>5</td>
<td>3125</td>
<td>1316</td>
<td>3192</td>
</tr>
<tr>
<td>Scheme</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wad Al Naim, Gezira Scheme</td>
<td>4</td>
<td>3371</td>
<td>1412</td>
<td>4571</td>
</tr>
<tr>
<td>GozAlhead</td>
<td>4</td>
<td>2659</td>
<td>1200</td>
<td>3102</td>
</tr>
</tbody>
</table>

**Cost & Benefit of rice production in Gezira experience in 2012**

<table>
<thead>
<tr>
<th>Crop</th>
<th>Cost (SDG)/feddan</th>
<th>Total benefit SDG/feddan</th>
<th>Net benefit SDG/feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorghum</td>
<td>1120 (830)</td>
<td>2500 (1740)*</td>
<td>1380 (910)</td>
</tr>
<tr>
<td>Ground nuts</td>
<td>1050 (840)</td>
<td>3300 (2249)*</td>
<td>2250 (1400)</td>
</tr>
<tr>
<td><strong>Upland rice</strong></td>
<td><strong>1455 (948)</strong></td>
<td><strong>3650 (3600)</strong></td>
<td><strong>2195 (2652)</strong></td>
</tr>
</tbody>
</table>

(Data estimated by Gezira SMoA. Data in blanket shows estimation in 2011.)

*: including crop residues
Technical Points on Cultivating Upland Rice before Post-harvest:

1. Using Good Seed
2. Good Land Preparation (Leveling)
3. Proper Sowing Operation
4. Sowing at Optimum Time
5. Effective Weed Control
6. Appropriate Irrigation
7. Harvesting at Proper Time

Key points to get more yield:

< Technical aspects >
Practice / observation and ask rice about condition of rice

< Institutional aspects >
Tight linkage between Farmers [Workers] – Extensionists - Experts

TECHNICAL HANDBOOKS

Handbook on Upland Rice Cultivation

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