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# QUARTERLY REPORT SEPTEMBER – NOVEMBER 2010

INCREASING RURAL FARMER INCOME AND IMPROVING FOOD SECURITY  
THROUGH INTEGRATED INITIATIVES FOR ECONOMIC GROWTH IN MALI

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**INTEGRATED INITIATIVES FOR ECONOMIC GROWTH IN MALI  
(IICEM)**

Contract No.: EDH-I-13-00005-03

## **DISCLAIMER**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government.



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# ACRONYMS

<b>ANSSA</b>	National Agency for Food Safety
<b>ARPASO</b>	San Ouest Rice Farmer Association
<b>AVPA</b>	Association of Agricultural Product Sellers of Bamako
<b>BEACIL</b>	Bureau d'Etude et Appui Conseil aux Initiatives Locales (An NGO implementing partner of IICEM; Bureau of Research and Consulting for Local Initiatives)
<b>CEFIB</b>	Centre d'Études et de Formation en Informatique et Bureautique, a vocational training center for IT and business
<b>CRRA</b>	Regional Agricultural Research Centers
<b>CSV</b>	Storage-based Credit System (staple crops)
<b>CdV</b>	Value Chain
<b>DAO</b>	Call for Proposals
<b>DNEF</b>	National Directorate of Waters and Forests
<b>DRA</b>	Regional Agricultural Extension Agency
<b>FAS</b>	Strategic Activities Fund
<b>IF</b>	Agro Enterprise Innovation Fund
<b>GIE RCGOP</b>	Economic Interest Group Producer Organization Management Advisory Network
<b>GIS</b>	Geographic Information System
<b>GREFA</b>	Group for Agricultural Research, Studies, and Training
<b>GRN</b>	Natural Resource Management
<b>IER</b>	Institut d'Économie Rurale
<b>IPM CRSP</b>	Integrated Pest Management CRSP
<b>IPR/IFRA</b>	Institut Polytechnique Rurale/Institut pour la Formation et la Recherche Appliqué
<b>IICEM</b>	Integrated Initiatives for Economic Growth in Mali
<b>LOA</b>	Law on Agriculture
<b>ODRS</b>	Office of Rural Development for Sélingué
<b>OHVN</b>	Office de la Haute Vallée du Niger
<b>OMA</b>	National Agricultural Markets Observer
<b>ONG</b>	Non-Governmental Organization
<b>OP</b>	Producer Organizations
<b>OPIB</b>	Office of the Irrigated Perimeter of Baguinéda
<b>PDCO</b>	Community Development Program
<b>PIV</b>	Village Irrigated Perimeter
<b>SICA</b>	Society of Agricultural Common Interests
<b>SRI</b>	System of Rice Intensification
<b>UCUTOHA</b>	Cooperative Union of Tondibi and Ha
<b>URCEP</b>	Regional Union of Potato Traders and Exporters
<b>USAID</b>	United States Agency for International Development
<b>USG</b>	United States Government



# INTRODUCTION

Integrated Initiatives for Economic Growth in Mali (IICEM) is USAID/Mali's flagship economic growth program. The program spurs economic expansion and strengthens food security by increasing productivity in basic cereals and horticultural crops, using a value chain approach. IICEM is implemented by Abt Associates Inc. as prime contractor, in partnership with ACDI/VOCA; Sheladia Associates, Inc.; CARANA Corporation; and a number of Malian public and private entities.

The objectives of USAID's 2010 Global Food Security Response are "to increase economic growth and develop the basic food supply." The four pillars of this strategy are to increase agricultural productivity, reduce obstacles to commercial transport, promote agriculture based on the demand of markets, and increase participation by the very poor in economic growth. IICEM fits well within this framework, and by using a value chain approach, IICEM supports all actors to improve their productivity, more efficiently respond to market demand, and subsequently increase incomes.

## OBJECTIVES

IICEM's interventions are organized around five core themes: 1) enhancing access to markets and trade while improving commercialization of targeted commodities; 2) rehabilitating and/or expanding irrigated agriculture and diversifying and intensifying agricultural production; 3) enhancing financial services; 4) improving the enabling environment for agriculture, trade, and private sector development; and 5) stimulating entrepreneurship with a strategic activities fund, a grant facility for agro-enterprise innovation, and small business development skill building.

IICEM implements activities in the north and the south of Mali. The northern regions where IICEM works include Mopti, Timbuktu and Gao, while southern regions include Sikasso, Kayes, Koulikoro, Ségou, as well as the District of Bamako.

This activity update includes an executive summary, followed by activity updates for the period by value chain, then by cross cutting activity (natural resource management, biodiversity and climate change; the promotion of gender-equitable opportunity in value chain development; and facilitating transport and trade).

# EXECUTIVE SUMMARY

Below is a summary of the activity focus for the reporting period by sector or value chain:

## MILLET/SORGHUM

The principal activity for the period was monitoring production at test sites where IICEM introduced three new varieties of millet and sorghum (*Toroniou* millet, plus *Segifa* and *Grinkan* sorghum). These tests are part of scaling up the adoption of improved millet and sorghum seed and cultivation techniques that were developed under a USAID-funded Collaborative Research Support Program (CRSP). The millet specialist and other IICEM experts conducted site visits, provided technical assistance and organized “Open Gate Days” where farmers exchanged successes and challenges with one another on-site.

Regarding access to markets and improving trade, a particular accent was placed this quarter on group sales and strengthening linkages between producers and processors, with a focus on increasing producer understanding and response to quality requirements, reviewing storage facilities in all zones, and helping address harvest and post-handling problems.

## RICE

To improve access to markets, activities this quarter centered around: following up on the installation of small rice mills to ameliorate the quality of processed products and improve marketability; activity planning for a par-boiled rice marketing campaign during which linkages were strengthened between the women par-boilers and wholesale traders; and establishing accounting systems with the women’s group to better orient the women in their marketing efforts and help with price calculations.

To improve productivity, activities included monitoring production in most work zones and harvests in the Sikasso lowlands. IICEM’s staff monitored the suitability and performance of irrigation and drainage works installed earlier in the year in the south, and guided the acquisition of 6 motorized pumps by producer organizations (PO) either through small grants or access to credit. Also, IICEM’s community-based seed producers planted seven varieties on a total area of 47.5 hectares, which will provide an estimated 280 tons of seed.

Regarding scaling up the System of Rice Intensification (SRI), IICEM efforts extended to 290 producers belonging to 43 different irrigated perimeters in the north farming 60.4 hectares; and in the lowlands of Sikasso, 31 farmers belonging to 6 POs on 9.2 hectares. Average harvests were 3.7 t/ha over 2.8 the year before. And finally to support productivity improvements, technical experts followed up on the advancement of agricultural equipment available for the producer organizations (motorized tillers, dehullers).

During the period, 4 POs in the Timbuktu work zone found input financing from BNDA with IICEM's help, totaling 19,767,500 FCFA. To improve the environment for trade and agriculture, 131 people, 127 of whom were women, learned about the Law on Orientation of Agriculture, particularly its decree relating to the use of chemical fertilizers.

## **MAIZE**

Representing a new value chain for IICEM this project year, maize value chain activities for this quarter primarily focused on monitoring production and then preparing for the marketing cycle. IICEM staff as well as experts from NGO GREFA and BEACIL supervised the production of maize on 2,409 new hectares in the Sikasso and Bougouni circles, and an additional 874 hectares in support of a partnership with Mali Biocarburant. Marketing efforts were guided by the maize value chain study (also completed this quarter), and focused on strengthening linkages between producers, processors, and traders.

## **HORTICULTURE**

IICEM's focus this quarter for horticulture was to begin implementing a strategy in Irrigated Village Perimeters (IVP) as well as the lowlands to provide technical assistance and training to men and women producers to spread best practices for gardening in a clean and healthy environment; introduce peri-urban gardeners to more sustainable production techniques that use water more efficiently and apply improved soil conservation methods; and introduce new, high-value vegetable varieties, particularly to the project's women's organizations. Focused activities with potato, shallot, tiger nut, and tomato continued.

**Potato** activities this quarter essentially focused on improving productivity, access to financial services, and access to markets. To allow partner producers and traders increase sales with better market information and buyer requirements, IICEM led a series of trainings on basic marketing for 140 producers and traders belonging to cooperative members of the Society of Agricultural Common Interests (SICA) and the Regional Union of Potato Exporters and traders (URCEP).

In terms of improving productivity of potato farming, activities focused on: increased access to inputs via the introduction of a line of credit for 42 POs at BNDA and Kafo Jiginew; the introduction of new technologies on a 20 ha demonstration site plus various tests on new varieties in different ecological zones; and introducing women to potato farming, which has historically been a man's work.

**Shallot** activities this quarter centered on promoting group sales and purchases, and monitoring sales of 60 tons of fresh and dried shallots by partner wholesalers on the national level, and by partner POs on the Dogon Plateau. To improve productivity, activities focused on establishing a core group of seed producers, introducing a rainy season onion variety in the Gao and Timbuktu regions as well as in the area around Sélingué and the peri-urban gardens around

Bamako. Efforts to improve access to finance focused on monitoring 13,471,000 CFA Francs in input credit to nine women's POs for seed purchases provided through BNDA.

**Tiger nut** activities focused on analyzing the market and improving producer response to buyer requirements through the development of a guide to improve post-harvest treatment related to grading, sorting, packaging and storage, as well as launching an initiative to develop a system for traceability and quality control post harvest and pre export. IICEM also led focused activities to improve productivity, training 20 POs, including 1 women's PO, representing 465 people farming 475 hectares. Following trainings on best practices in tiger nut production, IICEM put in place demonstration tests with these POs on 10 hectares to promote the cultivation of tiger nut following a specific cultivation regime.

**Tomato** activities this quarter built on past achievements of the IICEM program to develop and advance the "Host Free Period" technique of reducing incidence of the damaging effects of the "virose" tomato virus. IICEM focused on the Sélingué area to: introduce disease-resistant tomato varieties for large-scale demonstration sites; facilitate seed access of these varieties on the local market; and promote the acquisition of improved seeds as well as the open pollination technique developed by the IPM CRSP for seed multiplication by farmers themselves.

## **MANGO**

In the course of the quarter, activities related to improving access to markets included: monitoring dried mango sales which reached 1,686 kilos for the quarter, of which 211 kilos were sold internationally; facilitating establishment of the new supply system for the COMAFRUIT pulp factory for the upcoming campaign; facilitating the annual renewal of the ECOCERT organic certification, which is a key to international sales to the USA and EU benefiting 4 mango drying operations assisted by IICEM; and monitoring the construction of a dried mango storage facility to improve quality control by IICEM's partner processors.

## **FISHERIES AND RICE-FISH FARMING**

Activities planned for the quarter focused mostly on continued tracking of: growth rates and food regimes with stakeholders at IICEM's fisheries demonstration sites where best practices are being developed; advancement of the rice-fish farm in Korientzé; practical training of the program's fisheries partners who are responsible for training people in conducting a test fish harvest; the creation of a demonstration site in Yanfolila in support of the PPP between AID-SA, the Malian government and USAID, and the establishment of a hatchery site at Morila to provide former miners with new options for generating income given the mine closure.

## **FINANCIAL SERVICES AND BUSINESS DEVELOPMENT**

Between September and November 2010, IICEM facilitated five (5) new loans to beneficiaries of the project totaling 33,238,700 CFA Francs, representing four loans to Timbuktu rice

producers of 19,767,200 CFA francs; and a loan to the shallot union (ULPTE) in Bandiagara of 13,471,500 CFA francs. The nine-month e-commerce training launched this quarter, through which 10 agro-foods businesses will develop websites and learn about e-commerce. Plans were refined to start another Training of Trainers in Making Cents' MicroEnterprise Fundamentals curriculum to expand the cadre of trained facilitators who will roll the training out in the first six months of 2011 to at least 400 rural entrepreneurs (mostly women), teaching them the basics in entrepreneurship and managing a successful small business.

## **CROSS-CUTTING ACTIVITIES**

### **NRM, BIODIVERSITY CONSERVATION, and CLIMATE CHANGE ADAPTATION**

In collaboration with the implementing partner GIE and the technical services of the State (particularly the branches of the National Directorate of Waters and Forests in Koulikoro, Sikasso, Mopti, Timbuktu and Gao), natural resource management activities focused on: the formal hand-over of the Echell dunes near Lake Horo to the community, where IICEM worked with community groups to fix 40 ha on 2 dunes; continued facilitation of local management agreements; and developing and delivering a climate change analysis and adaptation training.

### **TRANSPORTATION and TRADE FACILITATION**

Efforts under the transportation and trade facilitation initiative this quarter primarily focused on continued efforts to coordinate and prepare for the Bamako-Dakar trade corridor conference and coordinate the four (4) working groups who will contribute findings and recommendations at the conference.

### **GENDER EQUITABLE OPPORTUNITY IN VALUE CHAIN DEVELOPMENT**

Activities to assure gender-equitable opportunity in value chain development included staff and implementing partner training by consultant Deborah Rubin to improve gender-related activity analysis, planning, and implementation. The training will be applied to development of a gender analysis and activity development that will be folded into the millet/sorghum value chain development plan next quarter.

### **STRENGTHENING LOCAL CAPACITY IN VALUE CHAIN ANALYSIS**

IICEM developed and led a workshop in Mopti to strengthen local capacity in value chain analysis. The training targeted IICEM staff, implementing partner NGOs, members of the DRA, and certain PO representatives and will be delivered in Sikasso next quarter. In addition, one-on-one coaching afterwards reinforced lessons learned at the workshop as staff developed value chain analysis and development action plans.

## DONOR COORDINATION

Donor coordination this quarter focused mostly on production and productivity improvements, particularly with other USAID-funded programs. IICEM coordinated with the following USAID Collaborative Research Support Programs (CRSP) such as:

- The INTSORMIL CRSP, as aforementioned, to promote the improved technical approach for millet production as part of scaling-up cereal production;
- The IPM CRSP, including promoting new propagation techniques for tomato; and
- The AquaFish CRSP, to plan and deliver a training to state technical services staff, NGO partners and fish farmers on periodic surveillance of fish and water characteristics to support good fisheries management.

Regarding collaboration with regional programs, IICEM also worked in partnership with the West Africa Seed Alliance, a USAID/West Africa program, to encourage the emergence of locally available, quality potato seed; with the Extended Agribusiness and Trade Promotion program also managed out of the USAID regional mission, on SRI initiatives and training IICEM-supported producers on cultivation techniques for a new rainy season onion variety; and with the USAID/Sénégal PCE on facilitating the Sénégal side of preparations for the cross-border trade and transport conference.

# MILLET/SORGHUM

This period marked the first production season under the IICEM program for the millet-sorghum value chain. IICEM-assisted farmers planted millet and sorghum on 3,800 ha in the five largest growing regions for these cereals: Kayes, Koulikoro, Sikasso, Ségou and Mopti. The activity focus this period was monitoring production of three new varieties of millet and sorghum—*Toroniou* millet and *Segifa* and *Grinkan* sorghum.

Extension agents from partner NGOs and the Regional Agricultural Directorates trained farmers in cultivation techniques and new varieties developed by the INTSORMIL Collaborative Research Support Program, also funded by USAID. “Open Gate Days,” or on-site farmer-to-farmer exchanges provided a forum for IICEM beneficiaries to learn about and discuss their experiences with the new varieties and techniques. About 500 farmers participated in these “Open Gate Days” in Sakebougou (Ségou region), Kountogoro (Mopti region), and Dougan (Sikasso region), where they shared positive observations about the growth rates and maturation of the new varieties; evaluated test results; strengthened their contacts with different actors that support the production link of the value chain (producers, extension services, financial institutions, and local authorities). The table below sums up production statistics showing surface area, number of POs and male/female producer data for each variety:

**Table 1: Spread of New Technologies in Millet and Sorghum (new varieties and accompanying cultivation techniques)**

Variety	No. Communes	No. PO	No. Producers			Total Area Under Production / Partial (ha) *	Total Area Under Production / Complete (ha) **
			Male	Female	Total		
Ségifa	13	30	752	97	849	862	662
Grinkan	20	83	1352	50	1402	1784	1784
Toroniou	17	34	973	261	1234	1185	1185
<b>TOTAL</b>	<b>50</b>	<b>147</b>	<b>3,077</b>	<b>408</b>	<b>3,485</b>	<b>3,831</b>	<b>3,631</b>

\* This column includes a portion of producers who used improved seed, but did not follow complete INSTORMIL requirements related to fertilizer due to availability issues. Total surface area under production is a significant milestone contributing to achievement of gross margin per hectare targets (IICEM’s top-level impact indicator), which also takes into consideration sales, costs, and quantities sold.

\*\* This column represents the total area under cultivation following the complete INTSORMIL technical package

## **ACCESS TO MARKETS IMPROVED**

### **PROMOTING GROUP SALES AND CREATING BUSINESS LINKAGES BETWEEN WOMEN PROCESSORS AND MILLS**

To strengthen access to markets this quarter, a particular emphasis was placed on promoting group sales and subsequently creating or strengthening business linkages between producers and processors. IICEM facilitated two meetings in September with processors to clarify quality and quantity requirements, and facilitate provision of the desired supply by IICEM's partner producer groups.

### **IMPROVING QUALITY OF RAW PRODUCT**

Cereals processors in Mali are routinely challenged in finding raw product without significant impurities such as dirt, stones and hulls. To provide a quality product post-harvest that conforms to buyer requirements, IICEM helped producers acquire tarpaulins on which to thresh millet and sorghum, and identified a supplier of higher-quality storage sacks to be delivered next quarter. These are simple, low-cost solutions that greatly reduce incidence of impurity in raw product sent to mill.

In addition, IICEM identified sites for the construction of 13 millet storage facilities, eight with a 50-ton capacity, and five with a 100-ton capacity. An agreement was drafted between IICEM and the POs to define responsibilities of each partner in construction efforts.

# **RICE**

## **ACCESS TO MARKETS IMPROVED**

### **NORTH: PROMOTING MINI RICE MILLS**

The objective of this activity is to support the emergence of private entities investing in rice processing through the creation of clusters of processors and producers whereby the producers commit to supply mini rice mills that will be established and managed by the processors. The activity is supported by a cost sharing arrangement between IICEM and processors. To support this activity this quarter, IICEM and its stakeholders:

- Planned work sessions with millers to establish and drive the supply chain.
- Clarified specifications and ordered two test mini rice mills from CAFON which are scheduled for delivery in January 2011.
- Developed a Memorandum of Understanding for management of these two units in support of the overall activity objective; and
- Led planning sessions with the developers of rice mills to establish the supply chain.

## SOUTH: PREPARING FOR THE PARBOILED RICE MARKETING AND SALES PERIOD

During this quarter in the Sikasso area, IICEM implemented the following activities to improve product marketability and marketing capacity for parboiled rice:

- Facilitated analysis and improved understanding of the market by the women's groups involved in parboiled rice, aided by input from IICEM's quality specialist, who collaborated with the National Food Safety Agency (ANSSA) on sanitation quality concerns and led an exchange with the women of Zangaradougou to help them better understand how their processes could be improved to produce a more hygienic product;
- Strengthened linkages between the women who parboil rice and traders/wholesalers through the establishment and monitoring of sales contracts, for example, linking Zangaradougou women processors to two wholesale traders, one in Sikasso and one in Bamako;
- The establishment of operating accounts for parboiled rice to help guide women in their marketing efforts. Through this management tool, the women found that their purchase and processing costs to turn 75 kg of paddy rice into husked, parboiled rice is 9,950 FCFA and that when the processed product is sold at 265 FCFA, the women would earn a gross income of 13,250 CFA Francs for a profit margin of 3,300 CFA Francs, or a 25% increase, which proves the profitability of the activity.

## AGRICULTURAL PRODUCTIVITY IMPROVED

The total area under rice cultivation supervised by IICEM for the reporting period is 7,790 ha against an annual target of 7,250 ha, and an increase from 4,858 ha the past year.

**Table 2: Total Surface Area Under Production for the 2010-2011 Agricultural Campaign (ha) \***

Targeted Product	Results Achieved 2009-2010	Target 2010-2011	Sept-Nov 2010	% of Target Achieved this Quarter
Lowland Rice, Sikasso	1,172	1,750	2,255	128.85%
Lowland Rice, Timbuktu	1,500	3,000	3,000	100%
VIP Rice	2,186	2,500	2,535	101.4%
<b>Total</b>	<b>4,858</b>	<b>7,250</b>	<b>7,790</b>	<b>107.4%</b>

\* To enable IICEM to track harvests from production through sales, IICEM monitors planting efforts conducted in summer 2010 through sales into 2011 as part of the 2010 – 2011 agricultural calendar and 2010 – 2011 results reporting period. Total surface area under production is a significant milestone contributing to achievement of gross margin per hectare targets (IICEM's top-level impact indicator), which also takes into consideration sales, costs, and quantities sold.

## EXTENSION/REHABILITATION OF IRRIGATED AGRICULTURE

Activities related to the expansion and/or rehabilitation of irrigated agriculture focused this quarter on monitoring small irrigation and drainage works IICEM installed from February to July 2010. In addition, the project supported farmers in participating in water management activities for their respective VIPs and small dams in the lowland areas.

## FACILITATING ACQUISITION OF DIESEL MOTOR PUMPS IN THE NORTH

As part of the initiative to increase irrigated agriculture, IICEM facilitated the acquisition of four (4) TR3 diesel motor pumps by POs Mopti and Timbuktu (Baramadougou, Kouin and Kwan in the Mopti region, and Goubou in the Timbuktu region). In addition, two (2) motor pumps were purchased by cooperatives Agro-Sylvo Pastoral and Nafi Tiessiri of Korientzé under a bank loan facilitated by IICEM totaling 7,400,000 CFA Francs. Finally an application for a loan was opened to support the acquisition of five (5) motorized pumps to benefit Timbuktu VIPs (Singo, Daounekeina, Niambougou, Doghoy, and Sibonne).

## ESTABLISHMENT OF A CORE GROUP OF SEED PRODUCERS

As part of community-based seed multiplication efforts, IICEM developed a contract with the DRAs in Mopti, Gao, Timbuktu and Sikasso to establish their involvement in implementing the program. This quarter, IICEM: monitored seed plots with agents of the DRA; harvested certain seed plots; informed POs about making seed purchases from seed producers; and increased awareness of POs on the process of preparing applications for financing for the acquisition of quality seeds for the 2011-2012 campaign.

Ten agricultural cooperatives are involved in implementation of the seed producer initiative (4 in Gao, 3 in Timbuktu, 3 in Mopti), implicating 97 seed producers. Seven (7) different varieties were produced on a total surface area of 47.5 hectares, to result in 280 tons of certified seed, in other words a production rate of 5.85 t/ha.

**Table 3: Community-based Seed Multiplication Initiative \***

Region	Sites	PO	Management Goal (ha)	Achieved (Ha)	No. Producers	Varieties Planted	Anticipated Production (T)
Gao	4	4	6	7.5	24	NericaL2 BG90-2 Adnyl I Niononka	53
Timbuktu	3	3	20	20	33	NéricaL2 BG90- 2 Kogoni Watt 310	125
Mopti	3	3	20	20	40	BG90-2 Nerica LI	102
<b>Total</b>	<b>10</b>	<b>10</b>	<b>46</b>	<b>47.5</b>	<b>97</b>	<b>7</b>	<b>280</b>

\* Source: Activity Report from DRAs in Gao, Timbuktu, and Gao, September – November 2010

## SCALING UP SRI

To scale up SRI efforts, IICEM developed an agreement with IER and the National Agriculture Directorate to involve the regional research centers and agricultural directorates in Mopti, Gao, Timbuktu, and Sikasso in the roll-out of SRI activities. This reporting period, IICEM's rice specialists monitored SRI parcels, organized an "Open Gate Day" farmer-to-farmer exchange in San, and monitored the harvests in Sikasso. Surface area and other details per site are listed in the table below.

**Table 4: Progress of SRI Technology in VIPs in the North**

Region	No. Sites	No. POs	No. Farmers	Surface Area Goal (ha)	Results Achieved (ha)	No. DRA Field Agents	No. NGO Field Agents
Gao	15	15	81	58.5	11.6	14	5
Timbuktu	14	14	60	15.6	1	13	5
Mopti	13	13	121	25.7	27.8	10	5
Ségou (San)	1	1	28	10	20	5	0
<b>Total</b>	<b>43</b>	<b>43</b>	<b>290</b>	<b>109.8</b>	<b>60.4</b>	<b>42</b>	<b>15</b>

The program did not reach its goal of 109.8 ha under SRI cultivation mostly because the goals for Timbuktu and Gao assumed availability of motorized tillers, which did not arrive when needed. Of note, the San Ouest association (ARPASO) achieved 20 hectares in its first year of experimenting with SRI, using two different irrigation methods: "submersion contrôlée" (submersion of the entire rice field at once), and "maîtrise totale" (a more controlled application of water parcel by parcel). Also of note, the Ségou Rice Office tested SRI with a system of controlled submersion at Dioro this period with 5 farmers in lieu of the scheduled 20 because of drought problems in the Ségou area at the beginning of the rice farming season. Harvests are in progress and data will be available next quarter.

In the south around Sikasso, 31 farmers from six different POs tried SRI for the first time covering a total surface area of 9.2 ha. The harvest period just ended and the results are as follows:

**Table 5: Progress of SRI Technology in the Lowlands of the South**

<b>Village</b>	<b>No. Farmers</b>	<b>Total Surface Area (ha)</b>	<b>Harvest of SRI Plots (t/ha)</b>	<b>Harvest of Control Plots (t/ha)</b>
Loutana	11	2.65	4.2	2.8
Nantoumana	5	0.50	3.7	2.9
Kouroumasso	2	3.75	3.2	No control plot
M'Pegnesso	3	0.50	4	2.5
Niéna	2	0.30	3.8	3.4
Finkolo	8	1.50	3.3	2.5
<b>Total</b>	<b>31</b>	<b>9.20</b>	<b>Average 3.7 t/ha</b>	<b>Average 2.8 t/ha</b>

Harvests for rainfed SRI test sites in the different zones were greater than harvests of plots that used historic/traditional farmer methods, 3.7 t/ha over 2.8 t/ha respectively. Of note here, in certain cases, even the traditional farmer system was improved because the farmers adopted certain elements of the new SRI practice in the control plots. The average harvest using traditional methods is generally less than 2 t/ha.

## **INTRODUCTION OF IMPROVED AGRICULTURAL EQUIPMENT**

Last quarter, IICEM helped 2 POs acquire motorized tillers in Finkolo Ganadougou (Sikasso) and Korientzé (Mopti), which will facilitate scaling up efforts and the transition by farmers from small-scale production into more larger-scale, commercial production, while also in the south addressing the gender-based dilemma of increasing women's involvement in intensifying and increasing production when they have limited time given their duties at the household and farm levels. The equipment was put into use this quarter to the great satisfaction of IICEM-assisted farmers.

In the south around Sikasso, beneficiary cooperative leadership signed an agreement with the IICEM regional office to define management, maintenance and the fee schedule for renting out the equipment to both member and non-member farmers that will support its sustainability. Operating costs are detailed in Table 6 below.

**Table 6: Equipment Rental Costs and Receipts (Sikasso)**

Village	Organization	Equipment	Sales (CFA Francs)*	Expenses (CFA Francs)	Net Income to Cooperative (CFA Francs)
Loutana	FOKABEN	Rice huller	625,000	230,000	395,000
Finkolo G.	Union	Rice huller	170,000	72,900	97,100
Finkolo G.	Union	Motoculteur	232,750	182,750	50,000
Nièna	COFRN	Décortiqueuse	302,500	47,500	255,000

\*Sales represent gross receipts from renting out the equipment. Expenses include maintenance costs, fuel, spare parts, and repair fees.

## FINANCIAL SERVICES ENHANCED

### FACILITATING ACCESS TO CREDIT FOR AGRICULTURAL INPUTS

With the support of IICEM this period, ONG partner RCGOP helped 4 Timbuktu POs launch and follow up on applications for financing. As a result, these POs benefited from 19,767,500 CFA Francs from BNDA for input purchases.

## ENVIRONMENT FOR AGRICULTURE AND COMMERCE IMPROVED

### IMPROVING UNDERSTANDING OF RELEVANT LEGISLATION

In the area around Sikasso 131 people (127 women) received training to improve understanding of current legislation in Mali related to agricultural and cooperative law. Eighty people (77 women), mostly members of the Finkolo –Ganadougou union, participated in a training on organic and chemical fertilizers, conforming to requirements of the *Loi d’Orientation Agricole*, the overarching law guiding agricultural development in Mali. Also, 51 people (50 women) from Benkadi de Zangaradougou cooperatives improved their understanding of the cooperative law, notably regarding the roles and responsibilities of cooperative members, and particularly of the members of their administrative councils.

# MAIZE

### ACCESS TO MARKETS IMPROVED

In the first year of maize activities for IICEM, IICEM supported production on 2,500 ha, which is envisioned to put 4,500 tons of raw maize and 500 tons of processed maize on the market.

## **CONDUCTING VALUE CHAIN STUDY**

The final draft maize value chain study which was launched last quarter was completed by a consultant in September, and is currently under review for improvement by the project technical team.

## **STRENGTHENING LINKAGES BETWEEN PRODUCERS AND PROCESSORS**

IICEM coordinated a November workshop in Sikasso which linked over 100 producers from partner POs, traders, and processors from Bamako, Koutiala and Sikasso. Buyers communicated quality needs and concerns, such as needing both yellow and white maize that is uniform in size and quality and free of impurities. Producers present committed to marketing 3,868 tons that fit the buyers' needs. IICEM will focus efforts next period on ensuring continued communication between all interested parties to facilitate the emergence of purchase contracts.

## **AGRICULTURAL PRODUCTIVITY IMPROVED**

### **INTRODUCING IMPROVED SEED AND FACILITATING THE EMERGENCE OF PRIVATE SECTOR SEED SUPPLIERS**

In the course of the launch of the 2010 – 2011 agricultural campaign, IICEM helped farmers acquire 50 tons of improved maize seed in support of program efforts to intensify maize production in the Sikasso region. This quarter, the project identified seed producers with potential to serve as seed suppliers to IICEM's targeted POs. IICEM is planning a mission with the Regional Agricultural Directorate along with seed quality monitoring specialists to visit these seed producers on-site to monitor the quality and quantity of seed stocks that will be available.

### **DEVELOPING AGREEMENTS WITH PRODUCER ORGANIZATIONS TO PRODUCE 2,500 HA USING FERTILIZER**

IICEM signed agreements last year with target POs in Sikaso trained by NGO partner GREFA; in Bougouni trained by NGO partner BEACIL; and in Koulikoro, Bougouni, and Kolokani working with Mali Biocarburant. Through these agreements, IICEM helped put 3,400.5 ha under improved cultivation using fertilizer against a goal of 2,500ha (1,380.5 ha in Sikasso; 1,029 in Bougouni, plus 991 ha for Mali Biocarburant, broken down as 14 ha in Koulikoro, 860 ha in Bougouni and 117 ha at Kolokani). This quarter, activities focused on monitoring harvests at all sites. At present, threshing is underway in all work sites except at Kolokani, where the entire 117 ha was completely destroyed by drought when rains began but then abruptly stopped.

# HORTICULTURAL PRODUCTS

IICEM has been working in potato and shallot value chains with limited tomato and garlic activities for a few years, but in 2010 the program broadened the scope of horticulture to find other high-value horticultural products, and reduced its work in garlic. In addition, at USAID's request, IICEM began working with peri-urban gardeners around Bamako. This chapter on horticultural products begins with a description of the activities related to high-value horticultural products and peri-urban gardeners. It is followed by a description of activities under the potato, shallot, tiger nut and tomato value chains.

## HORTICULTURAL PRODUCTS OVERALL

### ACCESS TO MARKETS IMPROVED

The key activity this quarter under the rubrique of increasing access to markets for IICEM-assisted farmers was leading a market study of fresh vegetable consumption and preferences of Bamako consumers to better understand demand and market opportunities for vegetable growers. IICEM recruited 25 survey facilitators to collect information from a sample of 1,000 producers, sellers, intermediary suppliers, and consumers from the population at large, hoteliers, restaurants, stores and vegetable market sellers. As of the end of this reporting period, all data has been compiled and analyzed. While the final report is under way, provisional results indicate that the most preferred products are tomato, eggplant, cabbage, green pepper, chili pepper, onion/shallot, carrot, garlic, and cucumbers. The study also proved that these items of elevated consumption are desired by consumers to be available year-round even though their availability fluctuates throughout the year.

### AGRICULTURAL PRODUCTIVITY IMPROVED

To increase productivity and incomes of partner producers, IICEM assistance revolved around the Large Scale Test of Garden Produce. To respond to needs identified in the market study, IICEM envisions introducing five new varieties preferred by consumers that can be produced year-round, tolerant of the peculiarities of certain seasons. To support this activity, IICEM identified three new groups of women in Sélingué, Zoloko and M'Pegnesso for horticultural production as well as three groups of women already working with IICEM in Finkolo-Ganadouyou, Yanfolila and Niéna to lead the testing on a large scale. The program also took steps to facilitate the women's access to seeds for the tests. Work will get underway on-site next quarter.

## ASSISTANCE TO URBAN AND PERI-URBAN GARDENERS OF BAMAKO

To help increase incomes of vegetable producers from the Association Sinignessigi of Bamako, and also to build on follow-up of the market study, IICEM introduced a rainy season onion variety. IICEM also followed-up on composting training conducted last quarter.

In addition, the Horticultural Specialist traveled to China to participate in a training workshop on detecting maladies of potato seed in support of an envisioned seed certification program. The objective of the workshop was to make techniques available to public sector services responsible for certification/quality and to finalize with the various stakeholders a procedure for a functional seed certification system.

## POTATO

### ACCESS TO MARKETS IMPROVED

#### STRENGTHENING MARKETING CAPACITY OF POTATO PRODUCER ORGANIZATIONS

To help producers and traders better understand buyer requirements and increase their sales capacity, IICEM developed a series of trainings on basic marketing principles delivered to 140 producers and traders from SICA membership and URCEP on

- Offers, requests, and supply planning;
- The calculation of costs, income margins and sales price; and
- Competition and business opportunities.

As shown in Table 7 below, IICEM trained 140 participants in marketing techniques and sales strategies for agricultural products. With this series of trainings, SICA and URCEP membership created a base for marketing and sales efforts between Sikasso producers and Bamako traders in support of estimated sales of 15,840 tons.

Beneficiary Organizations	Date	Number of Participants	
		Hommes	Femmes
URCEP (coopérative Faso Kanu, Noupansigé, Yiriwassé)	Oct. 4-5	20	0
SICA (Centre de Kafouziéla)	Oct 11-12	30	0
SICA (Centre de Diomaténé)	Oct 14-15	30	0
SICA (Centre de Zangaradougou)	Oct 17-18	30	0
SICA (Centre de Sikasso)	Oct 25-26	30	0
<b>TOTAL</b>		<b>140</b>	<b>0</b>

## AGRICULTURAL PRODUCTIVITY IMPROVED

**Table 8: Surface Area Under Potato Cultivation**

<b>Baseline 2009-2010 (ha)</b>	<b>Goal 2010-2011 (ha)</b>	<b>Sept-Nov 2010 (ha)</b>	<b>% of Goal Achieved</b>
727	800	750	94%

The production objective for the 2010 – 2011 season is 17,600 tons, up from 15,863 tons achieved in the past agricultural season, or in other words an increase of 11% over the last annual reporting period. To achieve this objective, IICEM has delivered technical assistance, training, and material assistance covering 750 of a planned 800 hectares of potato production, as noted in the chart above. Below is a description of activities in support of this goal.

### FACILITATING ACCES TO AGRICULTURAL INPUTS

To assure access to seeds and fertilizers of appropriate quality to support increased production and productivity, IICEM supported the following activities this quarter:

- Training of PO leadership to support centralized, group purchases and responsiveness to membership input requirements;
- Training of PO leadership in negotiation techniques to obtain quality inputs at a competitive price;
- Meeting organization between BNDA, input suppliers and producer cooperatives to improve access to finance by IICEM partners; and
- Increasing access to quality potato seed by women's POs in the north.

These activities allowed all parties to determine the input needs of PO members and established a partnership between the Society for Agricultural Common Interests (SICA) and alternative seed and fertilizer providers such as "HYDROCEM-MALI " as a means of opening a supplier-based line of credit to help farmers who are ineligible for bank loans to still have an opportunity to purchase inputs. In addition, BNDA agreed to finance potato farming inputs for 39 credit-worthy cooperatives, and Kafo Jiginew microfinance institution extended credit to three POs. All together, 72 organizations obtained 531.5 tons of seed and 385 tons of fertilizer with IICEM support--42 POs through input credit from BNDA and Kafo Jiginew; 15 POs through supplier-based credit; and 15 women's organizations in the north through direct purchase.

### INTRODUCING NEW PRODUCTION TECHNOLOGIES FOR POTATO

This activity aims to increase harvests through new techniques that save labor, use water more efficiently, and increase yields. For potato, the following activities were implemented in Sikasso and Yanfolila (with AID-SA) this reporting period:

- Technical assistance to private organization AID-SA and the Bogotieré Cooperative in site selection and soil preparation [AID-SA supplied the motor pump, accessories, and fuel as part of its support of the tripartate agreement between USAID, GOM, and AID-SA in Yanfolila];
- Facilitated access to agricultural inputs via the small grants program for 11.7 tons of seed and 9.1 tons of fertilizer specially formulated for potato; and
- Supported the installation of a diesel motor pump for the Bogotieré Cooperative [The cooperative covers fuel costs]

This work supported 20 ha of potato production benefitting organizations supported by AID-SA in Yanfolila in the Sélingué Office of Rural Development (ODRS) zone, the Bogotieré Cooperative in Sikasso, and a small farm managed by M'Pegnesso women as described in the table below. These larger-scale tests sites will serve as training sites for other producers in the work zone.

**Table 9: Scaling up Tests of New Potato Varieties**

Region	No. PO	Surface Area of Test (ha)	Quantités de semences (caisses de 30 kg)
Sikasso	Organizations assisted by AID-SA	11	255*
	Bogotieré Cooperative (mixed, women and men)	8	136
	Women of M'Pegnesso	1	20
<b>TOTAL</b>		20	411

\* The production system advocated by AID-SA requires more seed per hectare because it uses one tuber per hole, whereas the other cooperatives divide the tuber into several sections.

## DEMONSTRATION TESTS ON BEST PRACTICES IN POTATO PRODUCTION AND FACILITATING THE EMERGENCE OF POTATO FARMING AMONGST WOMEN IN THE NORTH

This quarter, 30 technical staff from the GIEs in Mopti, Timbuktu and Gao improved their understanding of potato production best practices. Through these technical experts, IICEM reached 382 women from 18 POs in these regions who applied newly acquired knowledge of best practices to 12 ha of demonstration sites. IICEM covered costs of 6.1 tons of seed in support of the tests this year.

## INCREASING LOCAL AVAILABILITY OF QUALITY SEED THROUGH ASSISTANCE TO THE KATIBOUGOU IPR/IFRA LABORATORY

To help IPR/IFRA advance the national potato seed production filière, IICEM collaborated with the USAID regional West Africa Seed Alliance (WASA) project to test 4 seed varieties with local farmers. IICEM and SICA selected 10 farmers in 10 villages with varying agro-ecological

zones to steer the tests. IICEM and WASA facilitated access to 0.96 t of seed plus fertilizer to support the farmers in testing the 4 new varieties *V18 Togo*, *V56 Désiré*, *V45 Etale*, and *V54 FLS4*.

## TESTING AND INTRODUCING NEW, HIGH-YIELDING POTATO VARIETIES

To increase productivity through increasing harvests this quarter, IICEM led demonstration tests on new varieties with producers in collaboration with local seed supplier Inter-Agro.

Farmers implemented two types of tests:

- A comparative test on the productivity of two varieties (*Sagitta* and *Sifra*) led by four farmers, whereby IICEM facilitated their access to 15 kilograms each of both varieties. Tests are ongoing, and will be repeated four times.
- A test on the impact of different site characteristics on the quality of potato tubers, also led by four farmers, whereby IICEM provided each with 20 kilograms of *Sagitta* seed which was planted in two agro-ecological zones, one with high soil humidity, and another with average soil humidity.

Results, which will be available next quarter, will allow Malian partners to find new, higher-yielding varieties and methods for improving the quality of seed tubers.

## FINANCIAL SERVICES ENHANCED

IICEM facilitated a dialogue between value chain actors (seed suppliers, producer organizations and traders) that encouraged BNDA to reverse its decision to withdraw its potato input financing as a result of large arrears caused by disorganization of supply of seed producers year after year. Since BNDA is the main bank that finances seed potato importation and distribution in Mali, the withdrawal of its financing efforts would cause a decrease in the quantities of seeds available, a subsequent increase in production costs, and an overall spiraling down of the potato sector. To cope with financing constraints, IICEM joined with other potato value chain actors to implement the activities below.

## INCREASING PRODUCER ACCESS TO AGRICULTURAL INPUT FINANCING

In October, to alleviate constraints linked to financing activities in the potato value chain, the IICEM program organized two workshops. One workshop facilitated dialogue and identified access to finance constraints along the value chain. Input suppliers, producers, traders, financial institutions (BNDA, Kafo Jiginew), DRA and NGO extension specialists identified the need to pay particular attention to the seed sector. The most prominent constraints identified included default on input loan repayment, and the poor organization of input supply.

The other workshop focused on negotiating BNDA financing terms, resulting in suppliers, input producers and technical services asking BNDA to accept financing cooperatives that are found to be credit-worthy and supported by the close supervision of IICEM implementing partner GREFA. GREFA signed an agreement with cooperatives in support of this arrangement, which

defined terms for improving management, good governance on the part of cooperative leadership, and timely loan repayment. In addition, since it is common practice for input suppliers to give preference to buyers paying with cash to the detriment of producers operating under a line of credit, another recommendation made by the group was to ensure that producers operating under the line of credit supported by BNDA and IICEM receive priority.

These workshops resulted in the creation of:

- A line of credit of 24,445,000 CFA Francs (about \$49,000) for three URCEP cooperatives by Kafo Jiginew for seed and fertilizer purchases; and
- A line of credit of approximately 700,000,000 CFA Francs (about \$1.4M) by BNDA to 39 credit-worthy cooperatives for seed and fertilizer purchases.

The two lines of credit will kick off next quarter.

## **SHALLOT**

### **ACCESS TO MARKETS IMPROVED**

The shallot, horticulture, and quality improvement specialists worked together this period to update and better understand quality concerns related to shallot and onion preferences on the national market today. The quality specialist participated in the Bamako horticulture market survey mentioned above. She incorporated information attained from this experience into a training-of-trainers developed in collaboration with the Food Technology Laboratory of IER on 'Best Practices in Hygiene for Improved Shallot Processing'. Training reached 24 people (8 women) from the new Dogon Plateau shallot producer's union, who learned about mastering best practices in hygiene and processing, good techniques for processing crushed, dried shallots and specific differences between that and the practices they currently follow, and fresh shallot storage recommendations.

### **TIMBUKTU**

Also to facilitate access to markets and improve commercialization of shallots, the program emphasizes group purchases and sales. In October, using a cascade training approach, IICEM trained 90 women in Timbuktu on group purchases of agricultural inputs and group sales of shallots produced, which reduce costs and create efficiencies to increase margins. Also, IICEM closely monitored and coached commercialization committees from Hariboro, Tarabangou and UCAMHO. The committees are composed of 5-7 members each who are tasked with researching markets for their organizations.

### **PROVIDING QUALITY SHALLOTS ON THE SUB-REGIONAL MARKET**

To improve the quality of shallots leaving Timbuktu destined for sub-regional markets, IICEM hosted a stakeholder exchange in Bandiagara to increase understanding by producers and

traders in Gao and Timbuktu on how to improve and retain quality while producing, storing, and selling shallots.

## MOPTI

### MONITORING NATIONAL AND SUB-REGIONAL SALES

During the quarter, IICEM monitored shallot sales on the national and sub-regional levels by a wholesale trader and Dogon Plateau producer cooperatives assisted by the program. This quarter, the wholesale trader sold 37.71 tons of fresh and dried shallots, and the cooperatives sold 22 tons of fresh and dried shallots as detailed in the table below:

**Table 10: Shallot Sales – Wholesale Trader**

Product Type	Quantity Sold (kilograms)	Destination	Sales price/kg (FCFA)
<b>September</b>			
Balls	1,500	Mopti	2,100
Sliced, dried (“EST”)	760	Bamako	2,800
Crushed, dried	2,500	Abidjan	2,450
<b>Total September</b>	<b>4,760</b>		
<b>October</b>			
Tops	1,426	Mopti, Timbuktu	285
Sliced, dried (“EST”)	283	Mopti, Bandiagara	2,950
Crushed, dried	384	Mopti, Timbuktu, Bandiagara	2,300
Seed	1,310	Bandiagara	900
Fresh	6,386	Mopti, Bandiagara	550
<b>Total October</b>	<b>9,789</b>		
<b>November</b>			
Tops	3,614	Mopti, Timbuktu	350
EST	552	Mopti, Bandiagara	2,925
Crushed, dried	3,232	Mopti, Timbuktu, Bandiagara	2,450
Seed	1,405	Bandiagara	1,275
Fresh	13,641	Mopti, Bandiagara	500
Balls	178	Mopti	2,425
<b>Total November</b>	<b>22,622</b>		
<b>Total for the Quarter</b>	<b>37,171</b>		

**Table II: Shallot Sales – Producer Cooperatives**

Cooperative	Product Type				Sales Price/kg (FCFA)			
	Quantity Sold				Fresh	Sliced, Dried	Crushed, Dried	Balls
	Fresh (kg)	Sliced, Dried (kg)	Crushed, Dried (kg)	Balls (kg)				
<b>September</b>								
Dandoly	1,160	-	-	-	750	-	-	-
Soningué	292	-	-	-	1,000	-	-	-
Konsogou Do	3,170	401	300	-	750	2,250	1,750	-
<b>Total September</b>	<b>4,622</b>	<b>401</b>	<b>300</b>					
<b>October</b>								
Anakanda men	-	-	2,000	-	-	-	1,500	-
Dioundioulou	613	-	-	-	400	-	-	-
Golgou	4,203	-	-	-	750	-	-	-
Sinkarma	707	-	-	-	550	-	-	-
Wolo - Wolo	364	-	-	-	925	-	-	-
Boro	-	-	1,280	564	-	-	1,750	1,750
Konsogou Do	3,700	200	640	-	-	1,200	2,500	2,100
<b>Total October</b>	<b>9,587</b>	<b>200</b>	<b>3,920</b>	<b>564</b>				
<b>November</b>								
Dandoly	1,160	-	-	-	750	-	-	-
Wolo - Wolo	490	-	-	-	1,100	-	-	-
Konsogou Do	500	-	300	-	1,300	-	2,600	-
<b>Total November</b>	<b>2,150</b>		<b>300</b>					
<b>Total by Product for Quarter</b>	<b>16,359</b>	<b>601</b>	<b>4,520</b>	<b>564</b>				
<b>Grand Total for Quarter</b>	<b>22,044</b>							

## AGRICULTURAL PRODUCTIVITY IMPROVED

To provide a forum for IICEM-assisted shallot producer organizations on the Dogon Plateau, Timbuktu, and Gao, to share their experience with other partners, an exchange visit was hosted in Bandiagara with cooperatives assisted by NGO Yam-Giribolo-Tumo (aka “YAGTU”).

## ESTABLISHING A CORE GROUP OF LOCAL SEED PRODUCERS

To increase local availability of quality seed, stakeholders supported by IICEM identified five producers who will serve as a core group of local seed producers (1 in Gao, 4 in Timbuktu). IICEM provided information to the management committees to guide them. In addition, IICEM identified two partner VIP organizations from Timbuktu (Coopérative de Sibonné and Semence

de Daye) and two from Gao (Coopérative de Djeflani and Coopérative de Tobon) to introduce shallot seed production activities on a surface area of 1 ha total, or 0.25 ha per site.

Also, in alliance with IER, IICEM plans to retest seed production rates of the Tata variety conducted last year with the same Dogon Plateau cooperatives Wolowolo, Kokodiougou, Anakandan men and women, and Konsogou Do, to confirm the results obtained. The test will be conducted on a total surface area of 80 square meters.

## **INTRODUCING RAINY SEASON ONION VARIETIES**

To increase the availability of onion on local and sub-regional markets year-round and continue to increase producer income, IICEM introduced a new variety of rainy season onion at OPIB, ODRS, and with IICEM partner cooperative members in Dogon Plateau, Timbuktu, and Gao in partnership with WASA, ATP, and IER.

This quarter, support to this activity centered on monitoring the progress of demonstration plots. Plants were in the formative stages of setting bulbs and conditions of the plots was deemed satisfactory, except for problems identified at some sites like the Kabara women's nursery, where the plot was attacked by grasshoppers. All sites along the Dogon Plateau showed good growth and producers were eager to introduce this onion on the market. This portion of the test was guided by the Mopti CRRA.

The tests in Gao cover a total of 14,426.25 m<sup>2</sup>, implicating 17 producers (8 producers from Djéflani, 8 from Tobon, and 1 from Ansongo Gomno). The tests in the Dogon Plateau covered 85 hectares with 17 producers (16 female, 1 male) in 3 villages.

## **ORGANIZING FARMER TO FARMER EXCHANGES AT RAINY SEASON ONION DEMONSTRATION SITES**

To share lessons learned from the rainy season onion tests, IICEM organized farmer-to-farmer exchanges on-site in Djeflani (Ansongo) and Yawakanda (Dogon Plateau). Local elected officials, government technical services staff, NGO partners and producers in each zone shared experiences about constraints linked to this onion variety, including insect attacks, lack of water at one site (Ansongo), and insufficient available cultivable land (Dogon Plateau).

## **FINANCIAL SERVICES ENHANCED**

### **MONITORING INPUT LOANS TO COOPERATIVES**

This quarter, activities related to facilitating access to finance for shallot value chain actors were devoted to monitoring the distribution of agricultural input credit received by IICEM partner cooperatives following assistance to organize their financing dossier and application paperwork. This financing from BNDA, totaling 13,471,000 CFA Francs (about \$26,000), enabled seed purchases for 9 producer cooperatives.

## **ENVIRONMENT FOR AGRICULTURE AND TRADE IMPROVED**

### **STRENGTHENING ORGANIZATIONAL CAPACITY OF PRODUCER ORGANIZATIONS**

To strengthen PO capacity in understanding relevant legislature, particularly the 'Law on Orientation of Agriculture' (*Loi d'Orientation Agricole, No. 0640/AN-RM*), IICEM conducted a series of trainings. In Timbuktu, 72 women learned about the key elements of the 'Law on Orientation of Agriculture'.

## **TIGER NUT**

IICEM conducts limited activity at strategic points along the tiger nut value chain mostly to boost productivity and production to help an exporter meet an existing, standing order; and to increase producer involvement in quality improvement to boost commercialization. All activities are carried out in Sikasso, the prominent region for tiger nut.

Overall, IICEM trained 242 people involved in the tiger nut value chain this quarter. IICEM's training related to the tiger nut value chain is designed to improve the technical and organizational capacities of producers in production, commercialization, soil structure, and yields--all aimed at increasing the revenues of targeted beneficiaries.

## **ACCESS TO MARKETS IMPROVED**

### **BETTER UNDERSTANDING THE TIGER NUT MARKET THROUGH ANALYSIS**

During this quarter, IICEM hosted a series of discussions with Sikasso's two largest tiger nut exporters. One of the biggest obstacles facing tiger nut exporters is financial liquidity to purchase and resell adequate quantities demanded by loyal Spanish buyers who have asked for at least 1,000 tons of quality raw product.

To increase the revenue of tiger nut producers, IICEM is presently reviewing the possibility of creating direct links between the producers and the Spanish clients, bypassing the intermediary exporters. To achieve this, IICEM would have to help producers gain access to finance, alleviate storage concerns, alleviate quality issues, and improve transport.

In response to quality and consistency concerns, IICEM trained 60 men on best practices in tiger nut drying, and to provide income generating alternatives, IICEM trained 10 men in tiger nut juice processing.

## **IMPROVING TIGER NUT HANDLING AND STORAGE**

Seeking to improve post-harvest quality of tiger nuts, the project undertook a number of activities during the quarter, including: (i) the creation of a tiger nut production guide from seed selection to sorting and post-harvest handling; (ii) the introduction of a traceability system, and (iii) the establishment of a tiger nut quality control committee (post-harvest and pre-export) in collaboration with IER through the Laboratory of Food Technology.

To improve tiger nut storage, the project planned with stakeholders the rehabilitation/ construction of five storage facilities, each with a capacity of 150 tons, located in large tiger nut production centers. Activities during this quarter focused primarily on site selection (Farakala, Molasso, Fanterela, Lobougoula, and Natien) and launching the competitive bidding process to identify the construction firm that will implement this work.

## **AGRICULTURAL PRODUCTIVITY IMPROVED**

This year rainfall has been very favorable in the production areas, signaling a potentially large harvest. Twenty IICEM-assisted cooperatives with 465 farmers cultivated an area of 475 hectares. Harvest data will be available in future reporting periods. To improve production and productivity, IICEM:

- Trained 62 people (including 12 women) on group fertilizer purchase procedures
- Trained 90 people (including 32 women) on production best practices
- Trained 20 men on determining production costs

## **ENVIRONMENT FOR AGRICULTURE AND TRADE IMPROVED**

Following training on best practices in production, IICEM put in place demonstration sites for improved tiger nut cultivation using an integrated management technique for fertilizers and soils for the aforementioned 20 cooperatives on 10 ha (0.5 ha per cooperative).

# **TOMATO**

## **AGRICULTURAL PRODUCTIVITY IMPROVED**

### **PROMOTING THE “HOST-FREE PERIOD” IN SELINGUE**

In the course of this quarter, to build on gains made in previous years promoting the "Host Free Period," IICEM continued promoting the technology in the Sélingué work zone through a number of activities. IICEM helped partner cooperatives gain access to improved, disease tolerant seed for large-scale demonstrations; facilitated access to improved seed on the local market; facilitated seed purchases for disease-tolerant tomato varieties; and helped local

farmers conduct open-pollination promoted by the Integrated Pest Management Collaborative Research Support Program (IPM CRSP).

## IMPROVING ACCESS TO SEEDS OF DISEASE-TOLERANT VARIETIES

As part of the fight against the most common tomato disease across Mali, IICEM and the IPM CRSP introduced varieties tolerant and resistant to the disease to test their ability to thrive and help diversify income sources for farmers. While producers appreciated these varieties, the seeds are too expensive in the local market. IICEM therefore set out to diversify seed supply sources through the following activities:

- Importing virus-tolerant and -resistant tomato varieties *Heinz* and *Shasta* for resale at-cost by partners, to assure adequate supply in tomato-producing zones of Baguinéda and Sélingué;
- Identifying new tomato seed distributor Yacouba Diarra of sene Yiriwa Blon (SYB) and facilitating his access to 500 gr each of *Shasta* and *Heinz* through an agreement defining responsibilities of each party;
- Delivery of 165 g each of *Shasta* and *Heintz* varieties to B.Youssouf, Director of Plant Production at ODRS, for use by Sélingué area producers who have been trained in and utilize the Host Free period technique promoted by IICEM.

Following these activities, seeds of the tolerant varieties are now available for more reasonable prices in all tomato production areas. Focusing assistance at the level of the national seed distributors allowed not only for the distributors to increase their income, but also for producers to have a permanent and sustainable source of seed for improved varieties.

**Table 12: Number of Agricultural Firms linked to Tomato Production Benefitting Directly from IICEM Assistance**

Type of Firm	Private seed distributor
Number	1

**Tableau 13: Number of New Technologies or Management Practices Made Available for Transfer due to IICEM Assistance in the Tomato Value Chain**

Type of Technology	Improved Seed
Number	4

# MANGO

## ACCESS TO MARKETS IMPROVED

During the reporting period, activities to facilitate access to markets mostly focused on marketing dried mango nationally and organizing the supply chain for the new COMAFRUIT factory being built in Selingué. Since the peak mango production season is April – June 2011, mango volumes sold during the current reporting period presented in Table 14 and 15 below are a small portion of the program’s overall objectives, and progress will be more evident via data presented in the May and August reports.

**Table 14: Volume of Purchases from Smallholders of Targeted Commodities (tons)**

Targeted Product	Result 2009-2010	Goal 2010-2011	Result Sept-Nov. 2010	% of Goal Achieved During Reporting Period
Mango	14,608	23,000	1,686	7.3%*

\* The result for the current quarter represents data collected during the reporting period for mangos purchased in the 2009 – 2010 agricultural campaign and not included in previous reporting.

**Table 15: Volume of International Trade of Targeted Agricultural Products (tons)**

Targeted Product	Result 2009-2010	Goal 2010-2011	Result Sept-Nov. 2010	% of Goal Achieved During Reporting Period
Mango	4,089	8,000	0.20	0%

## FACILITATING SUPPLY SYSTEM FOR PULP FACTORY

Last year, IICEM helped develop a supply chain with partner producers to feed a new COMAFRUIT pulp factory in Bamako for export to Europe. While the system was not without challenges, IICEM helped work out kinks in the organization of supply and transport, and the business concept proved to be feasible. In 2011, the plant is moving to Selingué, which will make operations more efficient by relocating closer to production zones of Selingué, Bougouni and Yanfolila, but will also pose new challenges and supply requirements.

In helping to assure a well-organized and improved supply chain over last year, IICEM organized awareness sessions for 80 producers in Selingué and Finkolo Ganadougou on the upcoming factory and supply requirements so mango producers can better plan and organize activities to avoid last year’s hiccups with poor harvesting techniques and misunderstanding of certain supply requirements. In addition to finding solutions to the many problems encountered with

supply during the last season, producers coordinated with local authorities to offer a 5 ha space where COMAFRUIT can build its agro-processing facility.

### **FACILITATING THE RENEWAL OF ECOCERT ORGANIC CERTIFICATIONS**

Given the critical importance of organic certification on accessing European markets, this quarter IICEM provided both technical and financial assistance that allowed for the renewal of Ecocert organic certifications. Chiefly, IICEM specialists helped resolve problems of non-compliance at certain processing facilities. As of the date of this report, all four facilities assisted by IICEM received renewed organic certification for international markets (EU and USA) for 2011. As a result, Kéné Yiriden and GIE/AGSA, who had payment suspended by primary client Gebana due to inability to provide proof of organic certification, received full payment for two tons of dried mango delivered in July 2010, valued at 4,542,550 CFA Francs (about \$9,000).

### **CONSTRUCTING A STORAGE FACILITY FOR DRIED MANGO FOR QUALITY CONTROL**

To help mango businesses better organize to sell directly to international buyers and reduce the numerous complications and contract breaches being generated by intermediaries such as Gebana, IICEM and the mango processing association developed a strategy whereby a center for storage and quality control will be built to ensure proper handling and relieve a major constraint to their ability to export directly to European or American buyers.

### **FACILITATING MEETINGS WITH DRIED MANGO TRADE PARTNERS TO INCREASE AWARENESS OF DOMESTIC MARKET POSSIBILITIES**

During the quarter, IICEM conducted a market survey of 10 major Bamako supermarkets and supply stores to better understand impediments to increasing dried mango sales in the domestic market. The analysis fed into a sales improvement strategy for the 2010-2011 marketing campaign. Difficulties that dried mango processors identified and now must resolve include mixing varieties during handling and low awareness of the product by consumers.

### **STRENGTHENING SALES AND MARKETING CAPACITY OF DRIED MANGO FACILITIES TO ACCESS INTERNATIONAL MARKETS**

During this quarter, processors assisted by IICEM developed a business relationship with a U.S. buyer and filled an order for 1.15 tons of dried mango. IICEM monitored the order-filling process to help processors deliver the order according to precise customer requirements related to variety, size and shape, and packaging. Also during the quarter, more than 0.21 t were sold to other buyers in other international markets in Germany (16 kg), USA (160 kg) and France (35 kg).

### **MONITORING DRIED MANGO SALES ON THE NATIONAL MARKET**

This quarter, national dried mango sales of IICEM-assisted agro-processors increased 33% from last quarter, up to 1.471 tons from 1.098 tons last period. National dried mango sales are primarily in Bamako.

## AGRICULTURAL PRODUCTIVITY IMPROVED

**Table 16: Total Surface Area Under Cultivation 2010-2011 (Ha)**

Targeted Product	Result 2009-2010	Goal 2010-2011	Sept-Nov. 2010	% of Goal Achieved
Mango	3.728	3.300	3.300	100%

## FACILITATING ACCESS TO INPUT FINANCING FOR DRIED MANGO PROCESSORS

In support of activities to improve access to finance in the mango sector, IICEM focused on monitoring the marketing and repayment of three loans totaling 11.8 M CFA Francs (about \$23,600) provided to processing facilities Kene Yiriden, GIE/AGSA and the Association Balimaya Bougouni as working capital at the beginning of the season. Given the aforementioned late payments by intermediate buyer Gebana, the processors faced default on their loans. Therefore, IICEM helped the processors negotiate with financiers BNDA and Kafo Jiginew to extend the repayment periods over the next three years. During the quarter, the Sikasso processing units repaid 5,000,000 CFA Francs (about \$10,000) of the aforementioned loans.

## FISH & RICE-FISH FARMING

Activities this quarter focused on participatory diagnostics with fisheries stakeholders; stocking the Korientzé rice-fish parcel; practical, on-site training with partners responsible for supervising the periodic controlled fishing to track growth rates and feeding regimes; tracking demonstration sites where best practices are being developed; and supporting a fisheries demonstration site in Yanfolila in the AID-SA intervention area; and providing technical support to the establishment of a hatchery site in Morila to generate income for former miners.

## **SELECTING SITES AND BUILDING RELATIONSHIPS WITH FINGERLING SUPPLIERS AND FISH FARMERS**

During this quarter, IICEM identified three new fish pond sites, two in the Banconi neighborhood of Bamako, and one at the entrance to Sikasso near the road to Bamako. A 600 m<sup>2</sup> fish pond in Banconi under the supervision of the Regional Fisheries Directorate (RFD) is almost complete. The RFD solicited IICEM's help in supplying the site with fingerlings. The other Banconi site, which is a part of the "Le Tinporoko" ecotourism complex, is in start-up mode. The 400 m<sup>2</sup> Sikaso site is complete.

## **FACILITATING ACCESS TO INPUTS FOR ESTABLISHMENT OF NEW FISHERIES SITES AND CONDUCTING TRAINING TO SUPPORT THEIR MANAGEMENT**

During the quarter, in addition to monitoring and technical support, IICEM facilitated the access of 700 kg of fortified fish food by the Mamassoni site composed of 80% millet husks, 10% peanut cake and 10% fish meal to test the use of agro-food processing by-products. The final results of this test will be available next quarter.

## **LAUNCHING NEW FISHERIES AND RICE-FISH FARMING SITES AND MONITORING DEMONSTRATION SITES**

In support of this activity this quarter, IICEM guided the process of stocking the rice-fish farming site in the Mopti region, and monitored rice-fish farming and pond fisheries in the Sikasso region. IICEM monitored the demonstration site tests in partnership with the RDF from Mopti and Sikasso on a total surface of 0.3 ha against a goal of 0.4 ha. The objective fell short of the goal due to serious difficulties by partners in Korientzé to follow the technical schedule, including a delay in getting water in the new pond, which had a negative impact on rice and fish growth. In addition, the partner did not stock the number of fingerlings in the pond following technical recommendations. IICEM followed up in coordination with implementing partner PEENAL as part of activities in the subsequent reporting period.

Elsewhere, IICEM's fisheries specialist provided significant technical counsel to private-sector firm AID- SA on demonstration pond management in communities it assists in Yanfolila in support of the public-private partnership agreement between IICEM, the Malian government, and AID-SA.

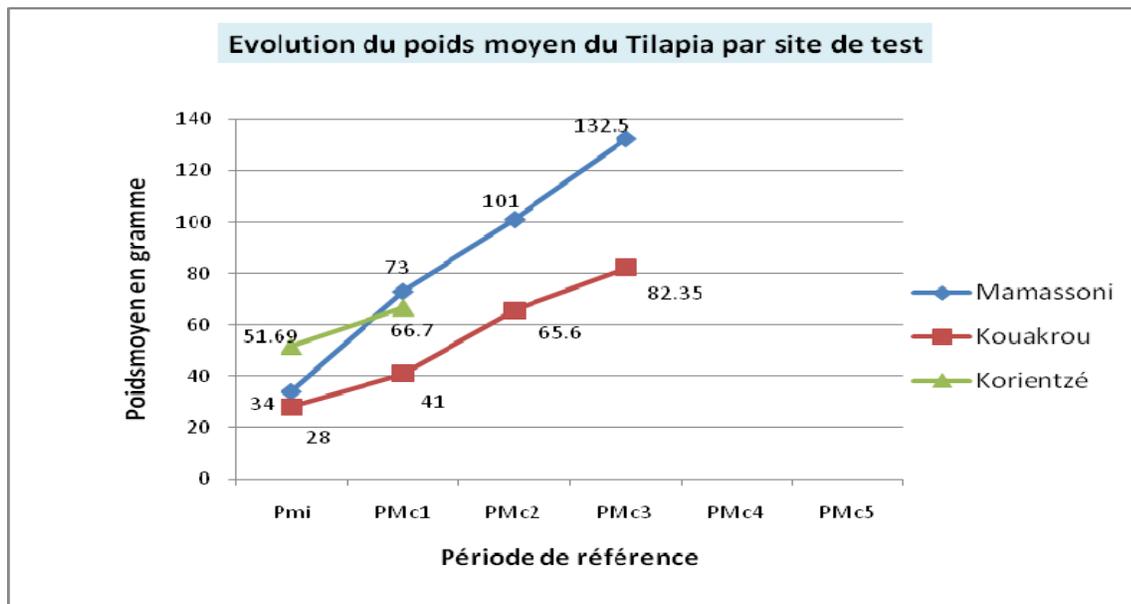
## **CONDUCTING SOIL AND WATER TESTING AT THE MORILA MINE TO EVALUATE THE POTENTIAL TO INTRODUCE AN INTEGRATED PRODUCTION SYSTEM**

IICEM provided technical assistance to the Morila gold mining company to help them create alternative income-generating activities for the former miners following closure of the mine. IICEM's irrigation and fish farming specialists provided input on the establishment of an integrated model for fisheries, poultry and small ruminants production, and gardening. Support

included advising on the selection of management system to pursue, the aspects/specifications of the fish ponds, the feed system integrating the ponds and vegetable plot irrigation and finally pond management costs including the cost of inputs and equipment. Partners are planning to develop 5 ponds of 4 acres each.

### PROVIDING TECHNICAL TRAINING TO PARTNER NGOS AND FARMERS IN FISH FARMING AND RICE-FISH FARMING IN PARTNERSHIP WITH THE AQUAFISH CRSP

To build capacity of various actors in fish farming, IICEM, Aquafish CRSP, and the DRA of Sikasso and of Mopti organized a control fishing for hands-on training in methods and tools for monitoring progress at the demonstration sites. Nine participants from state technical services and implementing partner NGOs (GIE PEENAL and GREFA) learned techniques alongside fish farmers, to manage fish ponds better, including tracking fish weight, fish length and water quality. Water quality monitoring included examining pH, water temperature, dissolved oxygen concentration, and nitrate (NO<sub>3</sub>) and nitrite (NO<sub>2</sub>) concentrations, which are critical for successful fisheries operation. After the surveillance and analysis, technical agents were trained in methods of processing data, such as the chart below, which shows the progress of average fish weights at various intervals in time at three sites: Mamassoni, Kouakrou and Korientzé.



*Note: Results indicate some heterogeneity in length at various sites, reflective of inconsistent application of recommended management practices between the various sites. The largest subjects attained 200 gr in Mamassoni, where the full growing cycle has been completed.*

# FINANCIAL SERVICES ENHANCED

## **FACILITATING ACCESS TO FINANCE BY HELPING PARTNERS ASSEMBLE THEIR FINANCIAL DOSSIERS**

During the past quarter, the support given to stakeholders to assemble their finance dossiers concerned primarily the rice and shallot value chains. In the rice value chain, IICEM helped four Timbuktu cooperatives develop quality business plans (Gorkome de Kano, Sibonne, d'Iloa and Singo). In the shallot value chain, IICEM helped three organizations develop business plans: one for the Dogon Plateau shallot producers union, one for shallot merchant Drissa Nantoume, and one for producer Samba Diallo of Koronga (Sio Commune).

Subsequently, during the course of this quarter, five new loans were awarded to project beneficiaries, amounting to 33,238,700 CFA Francs. Four of these loans were issued to the Timbuktu rice producers totaling 19,767,200 CFA Francs and one to ULPTE of Bandiagara for 13,471,500 CFA Francs. It is worth noting that two lines of credit were authorized by BNDA and Kafo Jiginew to finance potato inputs for the agricultural campaign of 2010-2011. The loans will be issued next quarter.

As mentioned in the mango chapter of this report, mango businesses Kéné Yiriden and Yaffa et Frères encountered difficulties in loan repayment due to problems with buyers. IICEM intervened to help both parties resolve problems. For Kéné Yiriden, Kafo Jiginew agreed to stagger the loan repayment across three years with IICEM's guarantee. Regarding Yaffa, problems with the cooling system at the PLAZA storage facility near the airport generated losses of over 45 M CFA Francs. In that case, the financial institution agreed to reschedule reimbursement of the 27 M CFA Francs loan.

## **CREATING AND NEGOTIATING MEDIUM-TERM GUARANTEE FUND AGREEMENTS**

To improve entrepreneurship and diversify the agribusiness base, IICEM and its partners will put in place financial mechanisms and tools adjusted to meet the differing needs of small and medium sized enterprises. Within this framework, two medium-term guarantee funds are being negotiated with BNDA and Kafo Jiginew. The accords total an amount of 275 million (200 M CFA Francs for BNDA, 75 M CFA Francs for Kafo Jiginew). The objective is to create a dynamic of blended finance and investment within agro-enterprises creating market opportunities for IICEM-assisted producers.

## **DEVELOPING ENTREPRENEURSHIP**

### **FINANCING THROUGH THE AGRO-ENTERPRISE INNOVATION FUND**

During this quarter, IICEM analyzed 35 applications for support from the Innovation Fund (IF), of which only five projects advanced, based on the creativity and the relevance of the projects. The five projects will support businesses related to rice processing, cashew processing, livestock and poultry feed production, an integrated agroforestry animal husbandry, and a multi-purpose agro-processing company owned by women.

Regarding applications already in progress from last quarter, the UCODAL dossier was finalized, which will increase its fonio processing capacity to 400 tons per year. Business plans for UPROSEV for mango vinegar processing and the firm Piscicole are almost complete.

Assuring agro businesses assisted by IICEM's IF adequately consider quality requirements of prospective buyers from the start, IICEM's quality specialist worked closely with the business development team to fold elements of quality into business plans subject to review and improvement by program experts as a prerequisite to funding. Technical assistance from the quality specialist focused on three processing businesses, for mango vinegar, fonio, and tiger nut milk. Specific actions included:

- Helping to develop a production diagram that includes quality concerns;
- In collaboration with the IER Food Technology Lab, provided input on profitability tests and the elaboration of technical specifications for mango vinegar and tiger nut milk, ensuring appropriate costs and steps are considered for appropriate packaging, determining shelf life of the products and necessary storage considerations, and determining profitability rates;
- Researching information related to national norms and standards and steps to take to assure quality production and marketability of tiger nut milk and mango vinegar.

### **FINANCING THROUGH THE STRATEGIC ACTIVITIES FUND**

The four candidates retained for support through the Strategic Activities Fund (SAF) are under research. Fish farming firm Tanima and Bonne Industrie Laitière are under the supervision of business development service provider CATEX, who plan on submitting completed business plans to IICEM before the end of January 2011. The other two projects, Produit du Sud and PROSEMA, require further work to validate and verify elements of their application prior to submission for approval.

SAF support to rice mill and livestock feed producer RIFAB began implementation this quarter, having attained 246 M CFA Francs in financing from BNDA thanks to IICEM's accompaniment.

## **SUPPORTING THE EMERGENCE OF E-COMMERCE**

IICEM, in collaboration with the Centre d'Études et de Formation en Informatique et Bureautique (CEFIB, a vocational training center for IT and business), provides training for representatives of 10 businesses in e-commerce and website management. By the end of the 9-month course at CEFIB, 10 businesses will understand how e-commerce can help generate sales, have a functioning website ready to take e-commerce orders, and will be able to manage secure transactions via a diverse range of payment methods.

This quarter, IICEM began with a review of the capacity of the 10 partner businesses to respond to market demands and improve product quality to make the products more competitive for e-commerce. IICEM found that complementary training is needed in facilitating access to markets; strengthening management capacity, improving product quality, and improving access to finance.

To respond to the identified needs, throughout the following quarter IICEM will develop and deliver training modules in collaboration with supporting institutions such as ANSSA and IER. These will be aimed at improving quality and linking COGETRAM and SINYUMAN business plans to IICEM's targeted cereals value chain partners.

## **TRAINING MICROENTERPRISES (MAKING CENTS)**

During this quarter, IICEM and Making Cents International planned two training-of-trainer sessions that will be implemented in December and January, to enable Malian institutions to deliver the Making Cents course *MicroEnterprise Fundamentals*. The TOT will deliver additional modules and build additional capacities for the cadre of 12 facilitators trained in March 2010 from Microfinance Institution Layidu Wari (11) and NGO AMASSA Afrique Verte (1), and launch a training of 14 new trainers from AMASSA Afrique Verte (4), NGO APROFEM (4), and the USAID-funded project Pro-Mali Nord (4). IICEM teamed with Pro-Mali Nord as a vehicle for delivering this training to microenterprise leaders in Timbuktu.

In October, IICEM supported training delivery by Layidu Wari trainers of the *MicroEnterprise Fundamentals* curriculum to reach 400 micro-enterprise owners and managers who are beneficiaries of Layidu Wari's credit system. Training continues through December. Plans will be finalized in December with AMASSA Afrique Verte and APROFEM for scaling up their *MicroEnterprise Fundamentals* training activities.

# CROSS-CUTTING ACTIVITIES

## NATURAL RESOURCE MANAGEMENT, BIODIVERSITY CONSERVATION, AND CLIMATE CHANGE ADAPTATION

This quarter, IICEM worked in partnership with local NGOs and Malian state technical services (such as the national and regional directorates for waters and forests) and their branches in the regions of Koulikro, Sikasso, Mopti, Timbuktu, and Gao to continue dune fixation activities in Gobi and Echel; mobilize and increase awareness of communities to support local natural resource management agreements; and deliver training related to climate variability and change, including testing the CRiSTAL participatory planning and analytical tool to determine resource availability, perceived climate change in the area, adaptability activities in effect and those to advocate for in the future.

### CONDUCTING DUNE FIXATION ACTIVITIES ON THE GOBI AND ECHEL DUNES

As noted in Table 17 below, dune fixation activities are 91% complete. Due to family farm labor needed to battle off an influx of birds prior to the harvest period followed by the harvest itself, villagers temporarily abandoned the dune fixation work. The work is estimated to be completed by mid-December, however. Dune fixation work is counted as part of activities to increase the number of hectares under improved natural resource management.

**Table 17: Number of Hectares Under Improved Natural Resource Management (Summary of Dune Fixation Activities)**

Region	Sites	Activities	Goal (Ha)	Result (Ha)	% of Goal Achieved
Timbuktu	Lac Horo	Palisades and biological fixation of the Echell dune	40	40	100%
Mopti	Gobi	Mechanical and biological dune fixation	20	11	55%
<b>Total</b>			<b>60</b>	<b>51</b>	<b>91%</b>

### FACILITATING THE DEVELOPMENT AND APPROVAL OF COMMUNITY NATURAL RESOURCE MANAGEMENT AGREEMENTS

IICEM's NRM and biodiversity conservation specialist launched the participatory development of 10 community natural resource management agreements targeted for the 2009 – 2010 project year. Of the ten, only three have been officially approved by the local communal councils. The three approved agreements cover Kadjilla (30ha), Gladié (24ha), and N'Golonina

(20ha), all in the Finkolo-Ganadougou Commune. The specialist is currently launching 10 additional agreements, for project year 2010 – 2011 for a total of 20 targeted for approval by August 2011, as included in Table 18 below.

**Table 18: Number of Policies, Laws, Agreements, or Regulations Promoting Sustainable Natural Resource Management as a Result of IICEM Assistance**

Region	Target 2009 – 2010 plus Target 2010 - 2011	Result (Approved)	% of Target Achieved
Sikasso		3	
Mopti		0	
Gao		0	
Timbuktu		0	
<b>Total</b>	<b>20</b>	<b>3</b>	<b>15 %</b>

## TRAINING COMMUNITY MEMBERS IN IMPROVED NATURAL RESOURCE MANAGEMENT AND/OR BIODIVERSITY CONSERVATION

As shown in Table 19 below, activities this quarter focused on training IICEM staff and NGO implementing partners in climate change adaptation and the CRiSTAL participatory analytical tool. The tool, useful for inventorying natural resources and drawing linkages to climate change adaptation needs in a community, was demonstrated in one community. Overall, the program must train 300 community members in improved natural resource management by December 2012. The training is designed to support implementation of the approved community management agreements. Since only three management agreements were approved at the end of the quarter in Finkolo-Ganadougou Commune, NRM training will start there next quarter, with additional training to follow the projected agreements as they receive approval.

**Table 19: Number of People Receiving IICEM-Supported Training in NRM and/or Biodiversity Conservation**

Subject	Life of Project Target	Result	% of Target Achieved
Natural resource management	300	0	
Climate change analysis and adaptation	0	66	
<b>Total</b>	<b>300</b>	<b>66</b>	<b>22</b>

## **TRANSPORT AND TRADE FACILITATION**

IICEM's work in transport and trade facilitation is a cross-cutting theme relevant to all value chains, especially the sub-regional cereals trade. This work links directly to two of IICEM's five mandates: enhancing access to markets and trade and improving commercialization of targeted commodities; and encouraging a more enabling environment for agriculture, trade, and private sector development. The work is led by CARANA Corporation.

### **ORGANIZING THE BAMAKO-DAKAR CROSS-BORDER TRADE CONFERENCE**

The conference on the Bamako-Dakar trade corridor is an advocacy and lobbying process with the overall objective of enhancing trade between Mali and Sénégal and particularly the movement of raw materials. It also seeks to clarify rules and procedures related to trade by local and national decision-makers to generate a mutual understanding between private sector and public actors regarding the fluid movement of goods that is in the best interest of both countries.

Work began mid-July on organizing the conference, starting with the visit of a Sénégalaise delegation to Bamako to launch a preparatory commission, an organizing committee presided over by APICAM, and thematic working groups. The preparatory commission consists of all relevant government technical services, economic actors, and technical and financial supporters including USAID and its projects (IICEM, PROMISAM).

This quarter, the organizing committee held two meetings to discuss the dates of the various workshops and activity budgets. A national workshop was held to present the reports from the four working groups on agricultural products, infrastructure and transportation, livestock and meat, and industrial products. From this, IICEM's trade and transport facilitation specialist helped the organizing committee compile Mali's guiding document contributing to the overall conference. The bilateral workshop between Malian and Sénégalaise experts is scheduled for next quarter, with the conference itself to follow. IICEM covered the costs of the four working group workshops and has committed to supporting the bilateral workshop and cross-border conference.

While not insurmountable, lengthy protocol requirements involving the governments of both countries has posed a challenge leading to pushing the date of the final conference to 2011.

## **CREATING GENDER-EQUITABLE OPPORTUNITIES IN VALUE CHAIN DEVELOPMENT**

This quarter, IICEM continued increasing staff and partner NGO understanding of USAID's methodology and processes for creating gender-equitable opportunities in value chain development, and began applying the analytical process to the millet-sorghum value chain, which will serve as a model to apply to other value chains.

Deborah Rubin, gender advisor to USAID and Feed the Future, along with graduate student Nathalie Me-Nsope, conducted site visits coordinated by IICEM for all USAID/Mali AEG programs in October. Rubin and Nsope used the site visits to tailor trainings for USAID mission and USAID-funded program staff. For IICEM, the consultants led two lively sessions, one in the Sevaré regional office and one in Bamako, reaching about 65% of IICEM's technical staff and NGO implementing partners. The consultants provided an introduction to the concept of "creating gender-equitable opportunity" and suggested practical ways for IICEM to incorporate the methodology into activity development.

As a next step, the millet/sorghum value chain specialist along with the gender specialist will work together to analyze constraints to gender-equitable opportunity within the millet and sorghum chain. They will develop activities and ways to measure success based on those constraints, then incorporate the analysis into the millet/sorghum value chain development plan which is currently under way. The resulting analysis will serve as a model for the other value chains. One challenge faced by the project this quarter was the need to replace the local staff gender specialist. Program management refined the scope of work and recruited the new gender specialist, who will start work December 1.

## **STRENGTHENING LOCAL CAPACITY IN VALUE CHAIN ANALYSIS**

IICEM's work plan for January 2010 through August 2011 calls for strengthening the capacity of technical staff and implementing partners to better understand value chain analysis and development not only to support IICEM's own value chain work, but also to increase sustainability of IICEM's efforts in the regions. The ACIDI/VOCA expatriate consultant designed and delivered a series of training this quarter, in the form of formal classroom training on theory and tools, as well as practical, on-the-job coaching as the value chain specialists developed analyses to fine-tune IICEM's initiatives.

In late November, the specialists led a 2-day workshop on value chain analysis in Mopti (Sevaré) for 20 technical staff and implementing partners such as PEENAL and DRA employees, plus certain PO representatives. At the workshop, the consultant covered five training modules:

- IICEM's Value Chain Approach
- The Selection of Value Chains
- VC Mapping
- VC Analysis
- Competitiveness & Developing an Action Plan

Each module was followed by practical exercises and group activities. The consultant will lead the same workshop in Sikasso at the beginning of December immediately following the close of the Mopti workshop, but recommends that value chain analysis training is continued after mid-January to reinforce lessons learned at the workshop and extend the training to additional staff and partners who weren't able to participate in these workshops, since association, NGO, and DRA members are extremely busy at present with the harvest period.

In addition to formal classroom training, the capacity building specialist also provided an interim review of the draft value chain analyses and action plans for millet/sorghum, rice, maize, and shallot currently under way. Coupled with the review, the capacity building specialist provided on-the-job, practical coaching to reinforce lessons learned and refine staff and NGO partner ability to provide adequate detail and more logical linkages between constraints and proposed action, which are required for a successful value chain analysis and development plan.