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# Congo Food Production, Processing & Marketing in Kinshasa Marketshed Project (FPPM)

## Project Year 2 Work Plan



15 October 2012 (rev.)

This work plan, submitted for review by the United States Agency for International Development, was prepared by DAI under the Food Production Processing & Marketing in Kinshasa Marketshed Project (FPPM), Contract No. AID-623-C-11-00008.

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## Project Year 2 Work Plan (9 May 2012 – 30 September 2013)

**SPONSORING USAID OFFICE:**  
**CONTRACT NUMBER:**  
**CONTRACTOR:**

**USAID KINSHASA, DEMOCRATIC REPUBLIC OF THE CONGO**  
**AID-623-C-11-00008**  
**DAI**



**DATE OF PUBLICATION:**

**15 OCTOBER 2012 (REV.)**

## ACRONYMS

<b>AIDAR</b>	Agency for International Development Acquisition Regulations
<b>APTM</b>	Association des Producteurs et Transformateurs de Manioc
<b>ASBL</b>	Association sans but lucratif (Literally : NGO/PVO but actually management agents in truck <i>parkings</i> and <i>beaches</i> .)
<b>BIAC</b>	Banque Internationale pour l’Afrique au Congo
<b>CARPE</b>	Programme Régional de l’Afrique Centrale pour l’Environnement
<b>CDS-Kisantu</b>	Caritas Développement Santé – Diocèse de Kisantu
<b>CEP</b>	Champs Ecoles Paysannes (Farmer Field School)
<b>CF</b>	Composite Flour
<b>CIAT</b>	International Centre for Tropical Agriculture
<b>COP</b>	Chief of Party
<b>COR</b>	Contracting Officer’s Representative
<b>DAI</b>	FPPM contractor
<b>DQA</b>	Data Quality Assessment
<b>DRC</b>	Democratic Republic of the Congo
<b>EU</b>	European Union
<b>EMMP</b>	Environmental Mitigation and Monitoring Plan
<b>FFS</b>	Farmer Field School
<b>FIDA</b>	Fonds International de Développement Agricole (IFAD)
<b>FAR</b>	Federal Acquisition Regulations
<b>FOPA KO</b>	Force Paysanne du Congo Central (local NGO umbrella organization)
<b>GIS</b>	Geographic Information Service
<b>GODRC</b>	Government of the Democratic Republic of Congo
<b>ICRAF</b>	World Agroforestry Centre
<b>IFDC</b>	International Fertilizer Development Center (FPPM subcontractor)
<b>IITA</b>	International Institute of Tropical Agriculture
<b>INERA</b>	Institut National pour l’Etude et la Recherche Agronomique
<b>IP</b>	Implementing Partner
<b>IR</b>	Intermediate Result
<b>M&amp;E</b>	Monitoring and Evaluation
<b>Mam Sa Ngol</b>	Women’s NGO, Idiofa, working with Soy
<b>MCI</b>	Making Cents International (FPPM subcontractor)
<b>MOU</b>	Memorandum of Understanding
<b>NGO</b>	Non-Governmental/Non-Profit Organization
<b>ONGD</b>	Non-Governmental Development Organization (Fr.)
<b>OSFAC</b>	Observatoire Satellite des Forêts de l’Afrique Centrale

<b>PAARSA</b>	Projet d'Appui à la Réhabilitation et la Relance du Secteur Agricole
<b>PEM</b>	Plantation et Elevage de la Mongala (Private plantation)
<b>PERSUAP</b>	Pesticide Evaluation Report/ Safer Use Action Plan
<b>PMP</b>	Performance Monitoring Plan
<b>PO</b>	Producer Organization
<b>RCO</b>	Regional Contracting Officer
<b>RFA</b>	Request for Application
<b>SENASAEM</b>	Service National de Semences
<b>SME</b>	Small & Medium Enterprise
<b>SNIR</b>	Service National d'Information Rural
<b>SO</b>	Strategic Objective
<b>TIFIE-Humanitarian</b>	<i>Teaching Individuals and Families Independence through Enterprise</i> , NGO in Plateau de Bateke commercializing food crops
<b>TIP Fund</b>	FPPM – Technology Innovation & Partnership grants and sub-contract facility
<b>ToT</b>	Training of Trainers
<b>USAID</b>	United States Agency for International Development
<b>USG</b>	United States Government
<b>Value Chain</b>	Full range of activities involved in bringing product or service from conception to sale in final markets

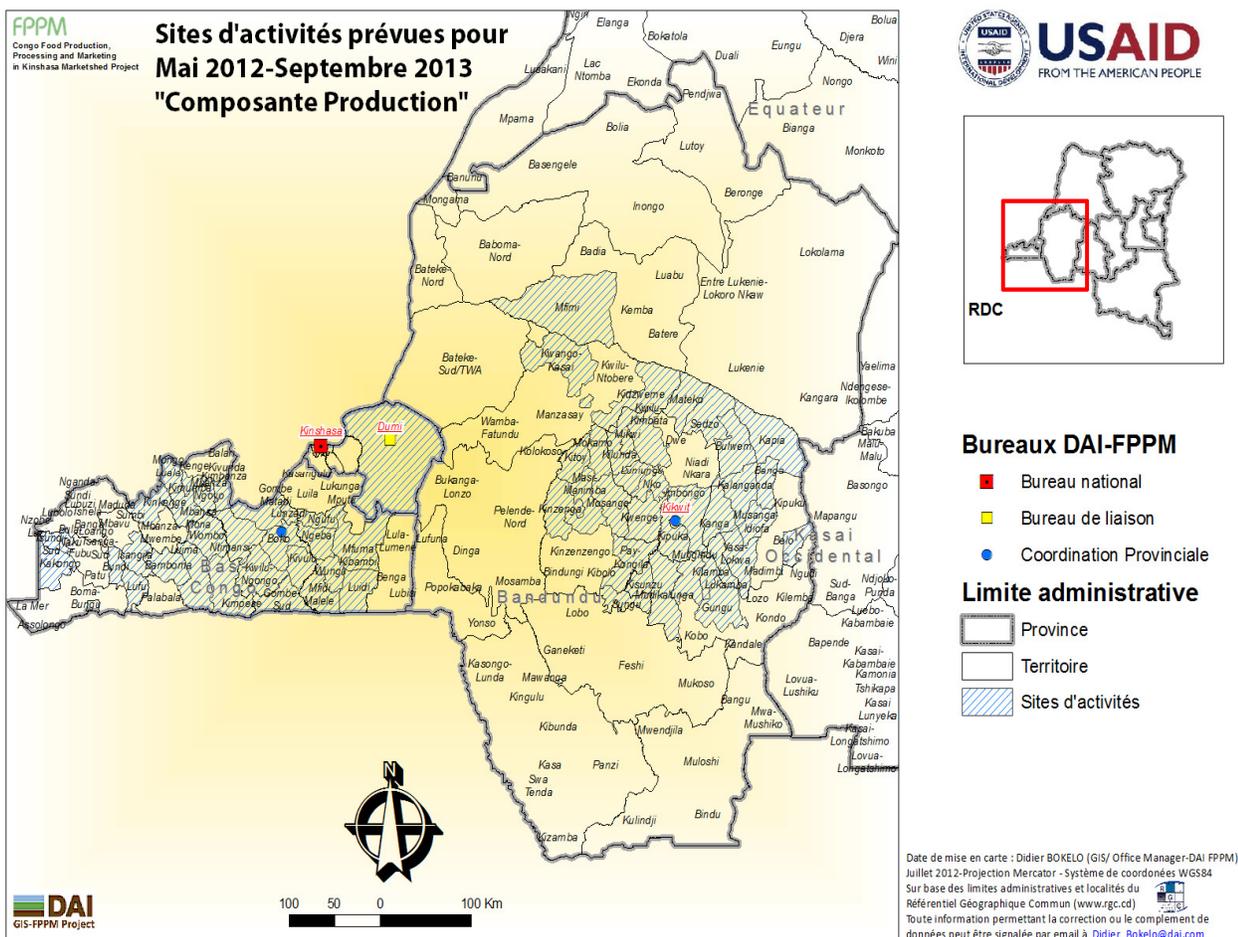
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## 1.0 FPPM Strategic Overview

USAID has made a strong commitment across all of its programs to promote food security and improved nutrition by improving agricultural production and increasing the incomes from that production. The approach to achieving these ends is based on understanding and supporting entire value chains, that is the full range of dynamic inter-linkages that bring an agricultural product from field to consumer. The Democratic Republic of the Congo (DRC) is one of the world's poorest countries and its population is among the least well-nourished. Years of poor government and internal conflict have driven hundreds of thousands of people from rural areas to cities where food shortages and high prices exacerbate their poverty and consequent under-nutrition.

To help reverse the self-reinforcing cycle of poverty and malnutrition, USAID and the Government of the DRC have designed and agreed to implement the Food Production, Processing & Marketing Project (FPPM) in the three areas of the DRC which have the most potential to supply the markets of Kinshasa and other western Congo cities with plentiful, affordable, and nutritious food: Kwilu District of Bandundu Province, Bas-Fleuve and Cataractes Districts of Bas-Congo Province, and the Plateau de Bateke, Commune Rurale de Maluku, Tshangu District, Kinshasa Province.



The FPPM design comprises in its three components the themes critical to the development of food crop value chains in the DRC: production, marketing/processing, and capacity development. Any one of these components could, alone, contribute significantly to alleviating hunger and nutrition in the DRC. But, increasing yields of cassava and maize without addressing other constraints across the value chains - constraints related to transport, marketing, post-harvest storage, processing, and marketing - will not provide sufficient incentives to farmers to make the investments necessary to achieve greater output on a

regular basis. But without increased production, investments in storage, transportation, processing and marketing would likely be unprofitable.

Addressing constraints all along a given value chain requires that farmers and downstream value chain participants understand that they are in fact businesses, minimizing risks and maximizing returns to the land, labor, and capital they use to produce, store, process, and market their products. Developing farmers' business management capacity has to go hand in hand with developing their productive capacity. Business people working in storage, processing, and marketing need to build their capacity to engage in long-term commercial relationships with producers as well as with their value chain neighbors.

The FPPM Year Two work-plan (17 months) lays out a closely integrated program to take advantages of the synergies inherent in the value chain approach to achieving food security and improved nutrition. Component 1, *Increased Agricultural Productivity*, begins with the basic building blocks of agricultural production: planting material. Emphasizing high-yielding, disease resistant varieties of key food crops, especially manioc and maize, the FPPM team, over the course of Project Year 1, has undertaken the production of significant quantities of certified planting material. (So-called "certified" material, several generations removed from "foundation" stock, is general from an older wave of mosaic virus-resistant varieties developed by IITA. Since it has passed through different hands over the years, its genetic stock is often not known, but with the application of standard phytosanitary techniques to production fields, it can be very productive and resistant to the recent varieties of mosaic virus.) The project will also continue to multiply cuttings from foundation stocks in order to extend high quality first generation material to farmers in the project area over the life of the project. This new planting material will also be the first line of defense against the encroachment of the Brown Streak Virus, the newest – and very destructive – enemy of cassava that is already decimating plantings throughout the Great Lakes area of Africa.

In association with the production cycle and capacity development work, Component 2, *Improved Market Efficiency*, is promoting the aggregation of crops at centers where both production and transport converge. FPPM is also planning the promotion of investments in storage, processing, and packaging technology to add value to farm production. Investments will likely include the aggregation centers, which will ease the contacts between groups of farmers who can bring their production to storage facilities convenient to their fields and transporters, or processors who can avoid the ordeal and risk of driving from field to field to collect a full cargo a few sacks at a time. The TIP Fund grants and sub-contracts program will support these activities.

At the same time as the production cycle interventions begin, Component 3, *Developed Capacity to Respond to Market Opportunities*, will begin its Farmer Field Schools (FFS) in the communities which participate in the production program. These FFS will provide agronomic training but will also concentrate on business skills for farmers and their associations. Learning, as businesses, to deal profitably with value chain partners is a key element to achieving sustainable production gains. FPPM partner *Making Cents International (MCI)* has developed courses for training of trainers (ToT) in business development skills at the Farmer Field Schools (FFS).

This close coordination of production, capacity building and transformation during Year 2 is critical to the long term impact and sustainability of FPPM interventions. At the same time, the work-plan explains how FPPM will integrate other key elements of our strategy to improve agriculture, generate rural incomes, and feed the hungry. FPPM partner, *International Fertilizer Development Center (IFDC)*, will undertake a study to underlay a strategy to overcome one of the main constraints to improving agricultural production and boosting incomes in the Western Congo: poor soil fertility and the high price of chemical fertilizers. FPPM production, post-harvest/marketing, and capacity building components will work together to make soil supplementation a part of the package our partners will extend to their beneficiaries.

While FPPM Component 1 works to increase and improve food crop production and processing in the rural areas, the Year 2 work-plan also describes Component 2 efforts to create expanded markets in Kinshasa and other cities. This work, which will go forward at the same time as the rural activities, includes promoting micro-cosettes as a higher quality form of dried cassava that can be milled into flour of the highest quality, generating interest and investment in bio-fortified foods such as maize, cassava, and lima beans, as well as in replacing imported industrial inputs with domestic production. Examples of

the latter are maize for poultry feed, soy and maize for locally-produced infant porridge, and cassava for beer, starch, and bread production.

To summarize, the FPPM strategy is based on integrating the efforts of the three components of FPPM in a coordinated effort to ensure the full range of production and income-generating support to farmers, farmer associations, and other value chain participants.

## 2.0 Component One: Increased Agricultural Productivity

Under the FPPM Year 1 work plan, Component One was programmed to concentrate on the multiplication of planting material from genetically pure foundation stocks for downstream distribution to farmers linked to associations, certified by the national seed service, SENASEM, to produce planting materials. The idea, as expressed in the DAI proposal, was that in 2011/Season A, FPPM would multiply pure foundation seed and cuttings and in Season B distribute the multiplied material for broader multiplication. By the end of project, this strategy would have extended planting material, multiplied from the most advanced clones, to about 60,000 farmers.

In November 2011, the Regional Contracting Officer (RCO) made a visit to the Plateau de Bateke and expressed concern and puzzlement over the small area devoted to cassava multiplication plots which totaled one hectare of foundation cuttings. Would DAI ever be able to reach 120,000 farming households with such limited production? FPPM was, after all, designed as a response to insufficiency of food in the Kinshasa Marketshed. Research and variety trials being the responsibility of IITA and INERA, according to the RCO, FPPM should properly leave the multiplication from foundation material to those specialized organizations. The role of FPPM should be *to produce, produce, produce*.

Immediately after the visit of the RCO, USAID/Kinshasa advised FPPM of the need to modify its strategy and ramp up multiplication of improved cassava cuttings. IITA advised the project that there was sufficient “certified” cassava planting material available in the region. FPPM staff contacted the small group of multipliers and many of them advised that they had land available for planting more cassava. Since the rains in Bas-Congo and the Plateau de Bateke had been delayed, it was not yet too late to plant at the tail end of Season A. FPPM, therefore, took the necessary measures to shift the focus of the project to the production end of the value chain, notably increasing the areas planted in cassava cuttings in Seasons A/2011, B/2012, and C/2012 from 15 HA to 946 HA.

The shift in program emphasis to the production end of the value chains will, of course, have programmatic and budgetary implications in Year 2. There will be a lot of cassava cuttings and seed in Season A to harvest, store, and distribute - at least 70 truckloads of fresh cassava tubers from the Plateau de Bateke alone, for example, compared to the estimated 7 truckloads under the earlier program.

The harvesting of fresh cassava tubers produced with the support of FPPM – for cuttings or for the market - will begin in Season B2013. The estimated quantities to be produced by season are shown in the following table.

Season	Qty (MT)
<b>B2013</b>	<b>5,106</b>
<b>C2013</b>	<b>2,835</b>
<b>A2013</b>	<b>99,495</b>
<b>B2014</b>	<b>41,745</b>
<b>A2014</b>	<b>21,075</b>

Although there are no contracts in place obliging FPPM to assist associations in the harvesting, processing, bulking, transporting, and marketing of the impending harvests, the project will have to take the lead to avoid any possibility of massive losses due to spoilage that might demoralize a generation of Congolese farmers.

In the first year, FPPM focused on three value chains - cassava, maize, and grain legumes; this focus will be continued in Year 2.

## 2.1 Identification of the Project Area

In Year 2, FPPM will focus field activities on the same districts, *territoires*, and sectors which the project identified in Year 1. These areas were selected primarily because, according to Ministry of Agriculture statistics, they were already productive and they are readily accessible to urban markets.

### FPPM Focal Areas

Province	District	Territoire	Secteur	
<b>Bandundu</b>	Kwilu	Bulungu	Kipuka, Kwenge, Nko, Luniungu, Kilunda, Mikwi, Imbongo, Kwilu-Kimbata	
		Idiofa	Yasa-Lokwa, Kanga, Kalanganda, Bulwem, Sedzo, Mateko, Kapia, Belo, Musanga, Cité de Dibaya, Banga, Cité de Mangai.	
		Masi-Manimba	Kinzenga, Kitoy, Mokamo, Mosango, Pay-Kongila, Sungu, Cité de Masi-Manimba	
		Bagata	Kizweme, Kwango-Kasai	
		Gungu	Mudikalunga, Mungindu, Kisunzu, Kilamba, Lukamba, Cité de Gungu	
		Mai-Ndombe	Kutu	M'fimi, Cité de Semendwa, Cité de Bokoro
<b>Bas-Congo</b>	Lukaya	Madimba	Kinkosi-Luidi, Mfidi-Malele, Mfuma-Kibambi, Wungu, Ngeba, Ngufu, Cité de Kintanu	
		Cataractes	Gombe-Matadi, Kivulu, Boko, Lunzadi, Gombe-Matadi, Ntimansi, Kwilu-Ngongo, Mbanza-Ngungu	
		Luozi	Mongo-Luala, Kinkenge, Mbanza-Mona, Mbanza-Ngoyo, Kimumba, Kimbanza, Cité de Luozi	
		Songololo	Luima, Kimpese, Bamboma, Wombo, Cité de Songololo	
		Bas-Fleuve	Seke-Banza	Bundi, Isangila, Lufu, Cité de Inga, Cité de Kinzau-Mvuete, Cité de Seke-Banza
		Lukula	Kakongo, Tsundi-Sud	
<b>Kinshasa</b>	Tshangu	Maluku	Chefferie de Bateke, Chefferie de Mbankana	
		Mont Ngafula	Lutendele, Mutende	

## 2.2 Implementation of Agricultural Activities

Production component activities envisaged for FPPM Year 2 comprise the following:

- A. Reinforce the capacities of producers, especially women, and their associations with training - through the Farmer Field Schools and the establishment of demonstration plots - in such practices as integrated soil

fertility management, animal traction, primary processing, and basic business management.

- B. Facilitate the access of small-holder farmers to quality inputs in sufficient quantities to permit them to increase production, including the multiplication of foundation materials, the distribution of certified seeds and cuttings, improving access to fertilizer and other inputs, etc.

## **2.3 Detailed Activities**

### **2.3.1 Multiply Planting Material from Foundation Stock**

The quality of planting material is one of the capital conditions for increasing production. FPPM will take care to put into place, each season, multiplication fields using foundation material of the most recently developed varieties from IITA and INERA research centers in order to provide producers with the very highest quality planting material available. The project will be introducing not simply productive material resistant to familiar diseases, and material resistant to new diseases threatening from the east, but also varieties that have been developed to incorporate vitamin or mineral enhancement to contribute to the nutritional well-being of the consumer. The certified material obtained from this multiplication effort will be further multiplied by partners, trained to carry this out properly, and then extended to farmer associations.

- A. Multiplication from Foundation Material

This sub-activity covers all priority crops: cassava, maize, groundnuts, soybean, niébé.

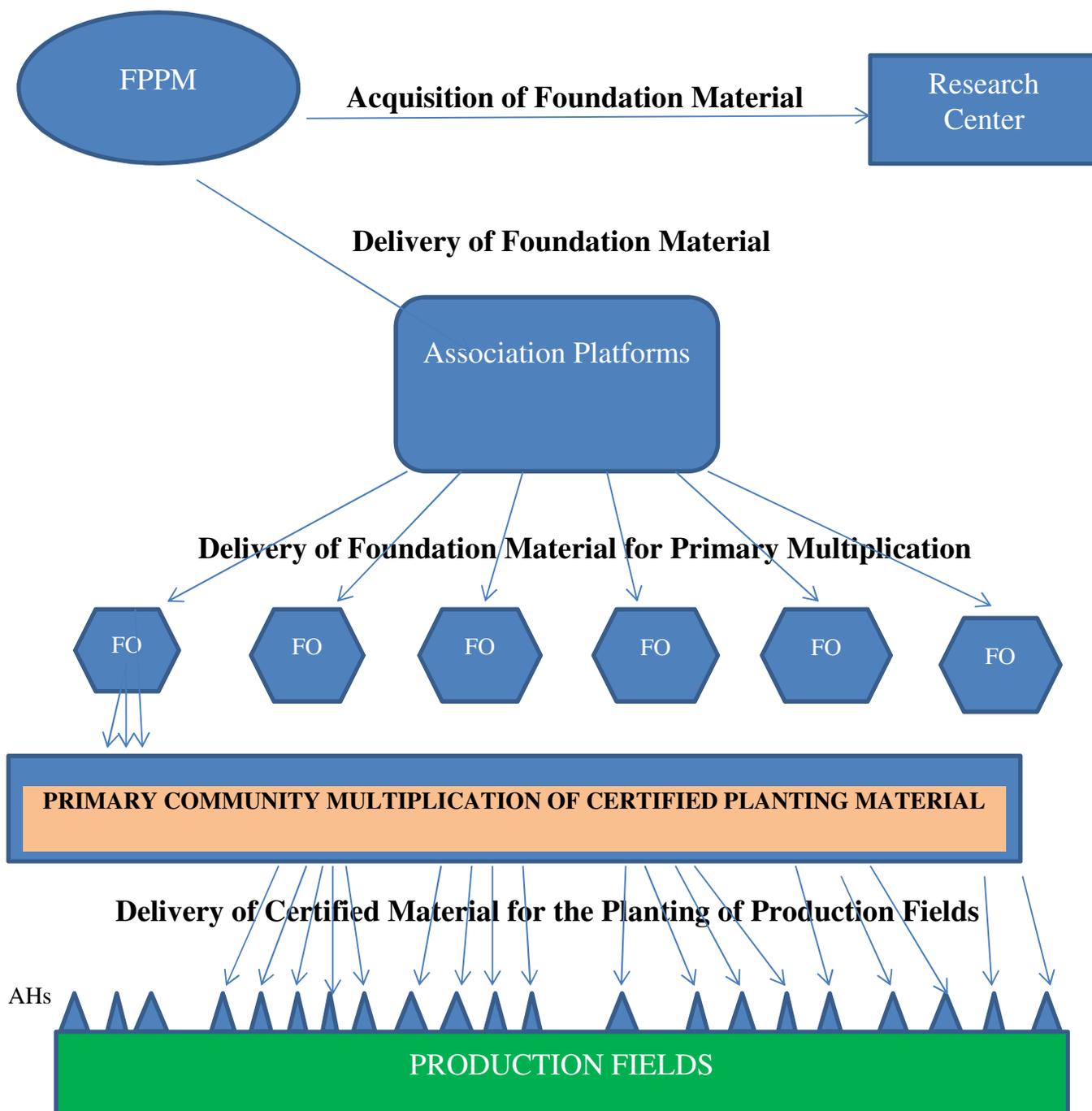
- B. In collaboration with Component Three, support associations of producers of certified seeds and planting material through Farmer Field Schools.

### **2.3.2 Distribute Improved Seeds and Cassava Cuttings**

Distribute certified, improved cassava cuttings and seeds of legumes and cereals to partner organizations throughout the project area.

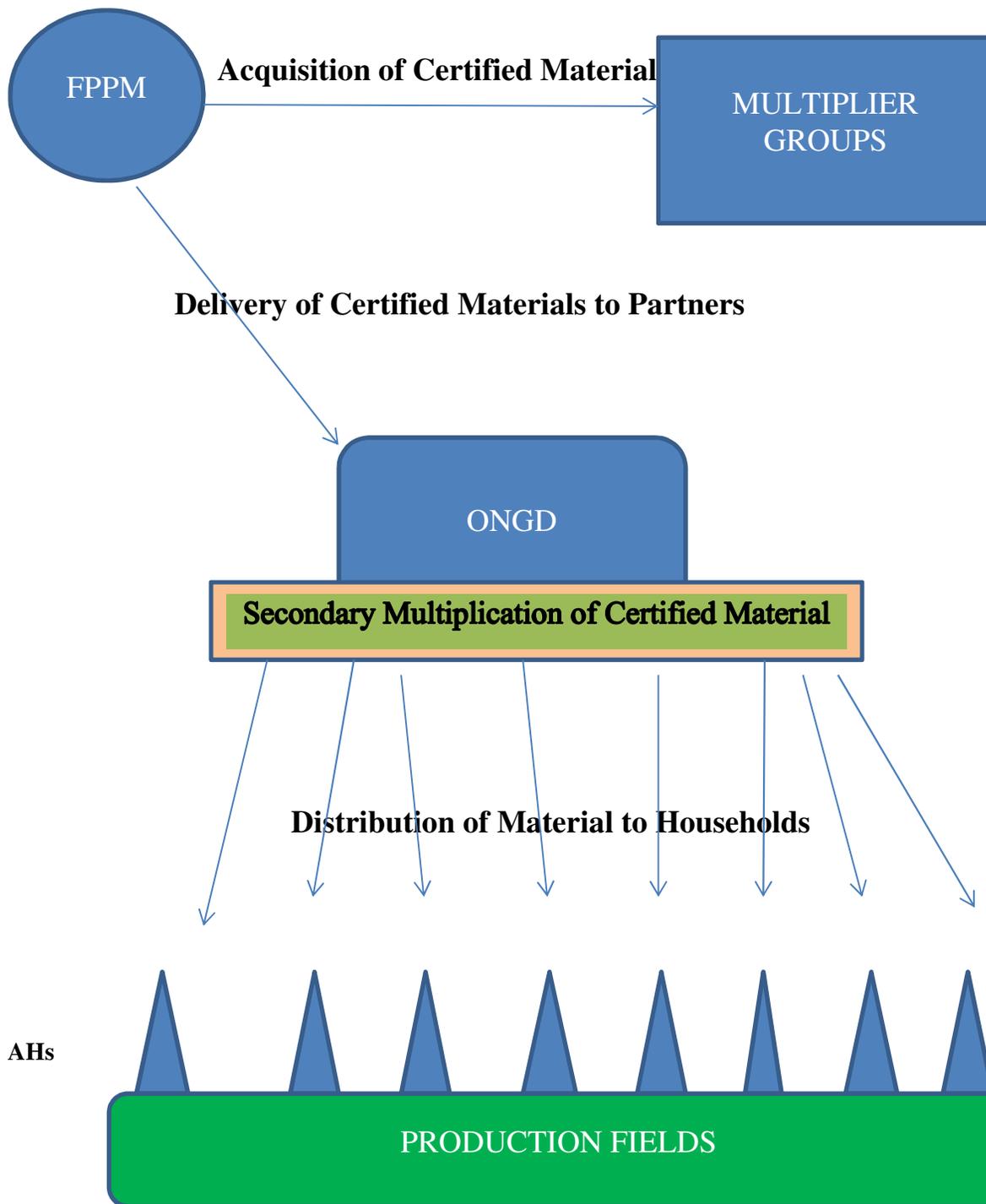
The scheme of distribution of plant material and seeds:

**Fig. 1: Production Process - Foundation Planting Material**



N.B.: FO - Farmer Organization or Association  
AH - Agricultural Household

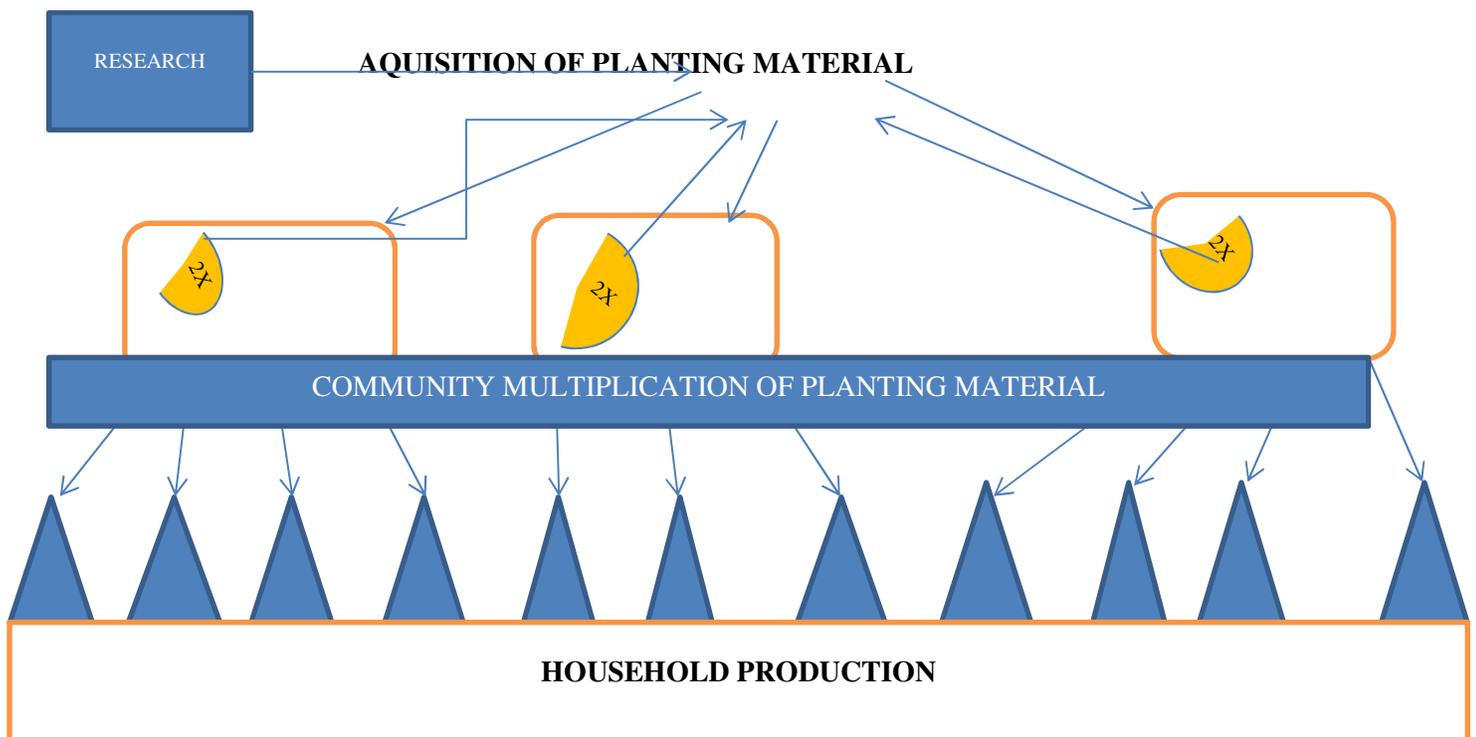
**Fig. 2: Production Process Using Certified Material**



**Fig. 3: Spatial Distribution of Planting Material**

FPPM procures foundation material from IITA/INERA research centers and distributes it to partner organizations and associations. These carry out the multiplication of the material through farmer organizations that they have organized and trained. After harvest, FPPM receives twice the quantity of seed originally distributed for multiplication and the rest is retained by the partner associations for distribution to farmer groups for the planting

of production fields. The seeds received by FPPM will be distributed to new partner organizations that will also multiply and distribute what they produce to farmer associations that will subsequently return twice what they have received, and so on.



### 2.3.3 Introduction of best cultivation practices through the establishment of demonstration plots.

- A. The location of demonstration fields will be identified in conjunction with the sites of FFFs.
- B. Demonstration fields will be set up at the selected sites and supervised either by staff conducting FFFs or people from the community that provided the land.

### 2.3.4 Stage demonstrations through FFS in collaboration with IFDC, IITA, and INERA on integrated management of soil fertility and plant diseases.

- A. Install the demonstration fields.
- B. Train association extension agents in integrated management of soil fertility and plant diseases.

### 2.3.5 Stage demonstrations of animal traction: Plowing the land at the end of the rainy season and using animal traction for post-harvest work.

At some sites the weeds of the genus *Imperata cylindrica* will constitute a major constraint to increased production because they require more weeding, making farming more labor-intensive and costly. Plowing at the end of the rainy season can help solve this problem. Using animal traction is also labor-saving for women and producers in general by providing for post-harvest transport from the fields. Demonstrating the benefits of animal traction will help Component Two staff prepare producers for harvesting, processing, and aggregating their products.

- A. Selection of pilot intervention sites in consultation with communities.
- B. Training of communities concerned through FFS.
- C. Acquisition of animals and materials.
- D. Demonstration of techniques.

### **2.3.6 Promote Demonstration of Post-Harvest Technology in Synergy with Component # 2**

- A. Identify techniques and equipment.
- B. Purchase or rent equipment for post-harvest activities.
- C. Demonstrate post-harvest techniques and expand community awareness in the project area.

### **2.3.7 Strengthen Organizations Involved in Soybean Processing**

- A. Understand the challenges facing rural organizations involved in soybean processing, especially related to packaging and distribution, which are problems that can be solved by working with Components Two and Three.
- B. Build the capacity of NGOs, such as the Bandundu women's organizations MAM'SA'NGOL in Idiofa and Moms Bongisa in Lusekele, in order to promote production, processing, and consumption of soybeans, cowpeas, and lima beans. Such NGOs have as a goal, among other objectives, the improvement of the nutritional health of women and children through the consumption of especially nutritious foods.

### **2.3.8 Establish Contacts with Projects Financed by other Donors**

FPPM will operate in coordination with projects financed by other donors, e.g. EU, WB, CTB, to avoid duplication or repetition of activities and to create real synergy.

### **2.3.9 Establish Contacts between Producers Enrolled in FFFs and Buyers of Raw Agricultural Products.**

This activity will be conducted in conjunction with the activities of Component Two in a common effort to promote linkages between producers and markets.

- A. Draw up lists of producers in FFFs and their products (Quantity and Quality).
- B. Draw up lists of buyers / users of agricultural products.
- C. Organize producer – buyer meetings;
- D. Guide Component Two on best sites for aggregation centers.

### **2.3.10 Increase the Rate of Diffusion and Adoption of Technologies by:**

- A. Developing curriculum for training materials and crop management demonstrations;
- B. Promote integrated soils management by developing materials for demonstrations and training;
- C. Promote agricultural mechanization;
- D. Improve techniques for postharvest drying, e.g. cribs, fumigation, in coordination with component No. 2.

### **2.3.11 Develop and implement with IITA Biofortification Project Focused on Women Beneficiaries**

Acquiring and promoting cultivation of iron and zinc-rich bean seeds and vitamin A-rich manioc cuttings from Harvest Plus, as well as high-protein maize seeds from INERA is an ongoing activity in the production component. The iron-rich beans and vitamin A-rich cassava are new varieties, only recently released, so the pace of multiplication and production within FPPM will depend at first on the supply of planting material. This activity contributes to the overall goal of improving the nutritious quality of foods available within the Kinshasa marketshed.

- A. Acquire new seed varieties
- B. Do seed multiplication in selected sites
- C. Distribute seeds materials.

### **2.3.12 Improve Access to Fertilizers**

- A. Study the fertilizer supply system (Ref: Component Three: IFDC).

- B. Identify fertilizer retailers (profile and geographical distribution).
- C. Establish a pilot project using "Purchase Orders" in order to stimulate demand. This activity will be conducted in the context of Component Three with the contribution of IFDC through the FFS.

### **2.3.13 Organize Regular Partner Meetings**

At scheduled times, organize meetings to assess the implementation of project activities and planning for the agricultural season; all project partners should participate. This will allow partners to share their experiences, comparing the different conditions each faces in their particular areas.

## **2.4 Issues Related to Global Climate Change**

Issues related to Global Climate Change are discussed in Feed the Future policy documents. Although USAID/Kinshasa does not require the FPPM Project to undertake activities related to mitigating the effects of climate change, the project is obliged to consider the environmental effects of its activities within the project area. Working the soil for agricultural production can have a dramatic effect on the amount of carbon released into the atmosphere. The promotion of different tilling techniques, alone, can greatly mitigate the effect of farming on the environment.

## **2.5 Promotion of Fertilizer**

For several reasons, such as the restrictions on movement related to the national elections and the shift in emphasis in Year 1 implementation from the capacity building program of the Farmer Field School approach to production of improved planting materials, the International Fertilizer Development Center (IFDC), sub-contractor to DAI for implementation of FPPM, did not carry out the activities planned for Year 1. Their activities were limited to a brief survey mission in September 2011.

As the farmer field school component ramps up in Year 2, IFDC will become more active, undertaking early in the year a comprehensive assessment of the functioning and performance of the fertilizer value chain to better understand the factors that contribute to the high cost of fertilizers in DRC relative to other countries in the Common Market for Eastern and Southern Africa (COMESA), the Southern African Development Community (SADC), and the Economic Community for Central African States (ECCAS).

The results of this study will be used to identify costs that are inconsistent with the resolutions adopted by AU Heads of State and Government in 2006 that are embodied in the Abuja Declaration on Fertilizers for an African Green Revolution and subsequently endorsed by the New Partnership for Africa's Development (NEPAD) Comprehensive Program for Africa's Development (CAADP). The study will recommend policy and other related measures to improve the performance of the fertilizer value chain and hence reduce the costs of fertilizer supply and distribution in DRC.

### **3.0 Component Two: Improving Market Efficiency**

Interventions under Component Two focus on downstream value chain functions: from post-harvest handling and aggregation, to processing, to sales in markets with all the intervening transport linkages. The FPPM strategy for improving market efficiency will use technical assistance, grants, and training to test, introduce, and diffuse new technologies and procedures that will add value to staple foods by quality improvement and processing, and increase market efficiencies by linking producers with markets. Reducing post-harvest losses all along the value chain and improving transportation arrangements will lead to more income for all stakeholders.

A significant, basic obstacle to the adoption of many new technologies is the lack of sufficient production in the Kinshasa watershed to warrant investment. Simple productivity-enhancing innovations comprise such elements as good quality storage, post-harvest treatment, on-farm or - near-farm - processing, and dedicated, good quality transport. As FPPM Component One continues to ramp-up production in targeted areas, FPPM will take advantage of the higher volumes coming on-stream to introduce new technologies at the critical points in the manioc, maize, and grain-legume value chains. The FPPM strategy is to intervene at critical points in order to improve and maintain product quality. FPPM regional staff will continue to build networks of local collaborators such as traders, truck owners, port operators, commercial farmers, seed multipliers, ONGDs, etc.

Component Two will collaborate intensively with Component One to address the big jump in the production of cassava. Producers in the project area will be harvesting 100,000 metric tons of fresh cassava tubers in Season A 2013. FPPM has to be ready to facilitate the flow of this production into the market networks that have been prepped to handle it.

#### **3.1 Market Infrastructure**

The Congo is plagued by inefficiencies in the value chains linking producing zones to urban markets. To address inefficiencies in the value chains for staple foods, FPPM in Year 2 will actively promote the rehabilitation and construction of aggregation centers that will allow for the improved handling, bulking, storage, and processing of manioc, maize, peanuts, and beans. Management of the aggregation centers will depend on the specific locations selected. In production zones, they will be operated by producer organizations; in urban markets, product will arrive either by truck or barge so business associations or private businesses will manage aggregation centers. Since market infrastructure includes all and any points in the value chain where products are collected and stored, ranging from small storage huts at the village level, to storage warehouses and silos, market stands and tables, receiving docks, and truck parking centers, the site selection and design of aggregation centers will conform to existing conditions. By reducing product losses and improving value chain efficiency, FPPM can increase food availability over and above any production increases, and give consumers a better quality product.

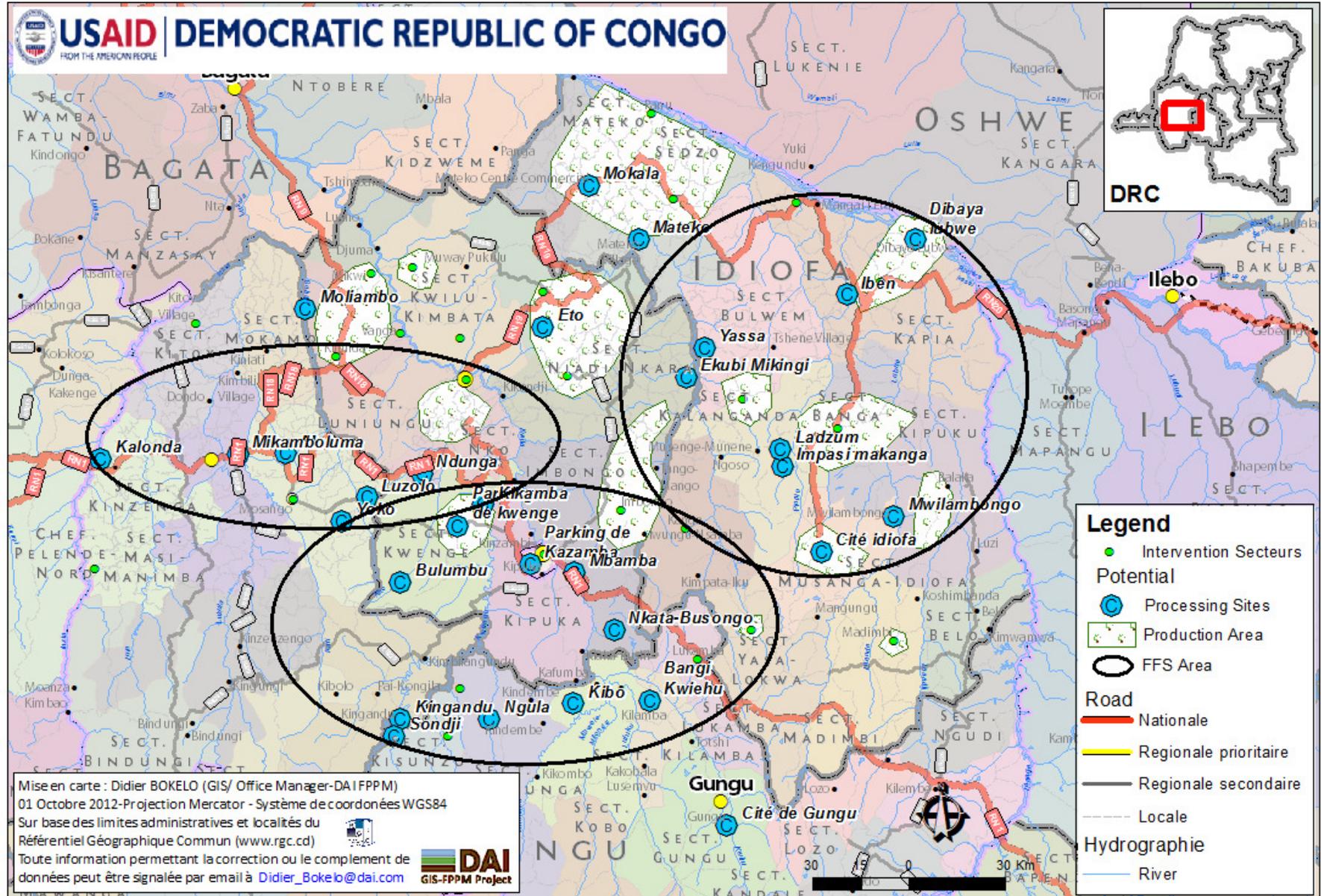
##### **3.1.1 Identification of Producer Associations to Establish Rural Aggregation Centers**

Since early in Year 1, FPPM has been identifying potential rural aggregation and processing sites for cassava. Site selection is a process integrating input from FPPM Components One and Two concerning priority production areas; existing aggregation sites; potential aggregation sites; availability of infrastructure necessary to processing, i.e. storage buildings, electrical generation, piped water, and proximity to good roads; and finally the presence of local management units with sufficient capacity to undertake the complex management routine of processing, drying, and storing cassava while negotiating with merchants for the eventual sale of the product.

The GIS unit established within FPPM over the last year, has produced the following maps showing the clusters within the project areas of production fields of cassava cultivated with assistance from FPPM Component One, potential aggregation/processing sites identified by Component Two, and areas in which the Farmer Field Schools are being implemented under Component Three.

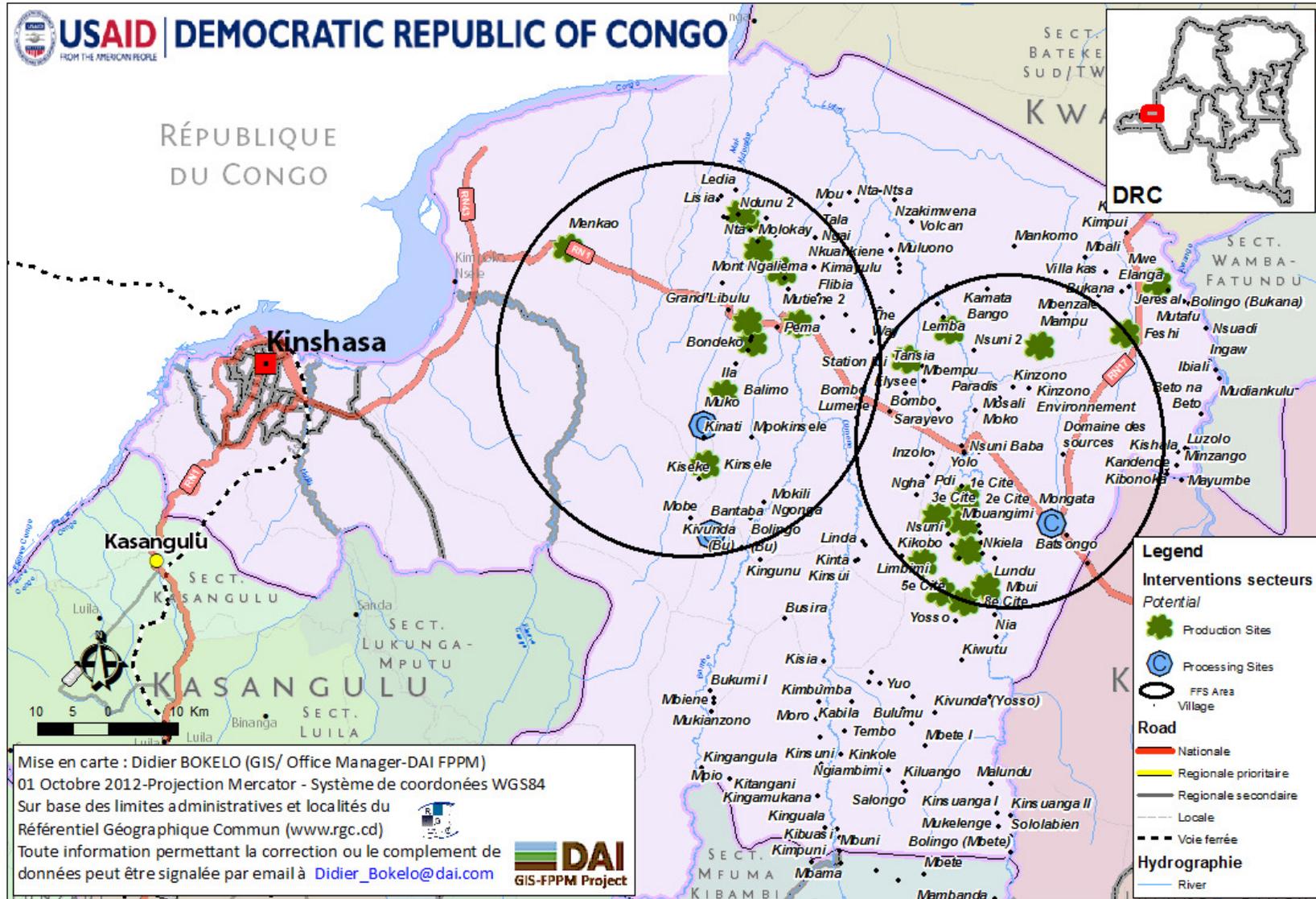
# POTENTIAL FOOD PRODUCTION, PROCESSING AREAS AND FFS SITES IN KWILU DISTRICT

FPPM  
Congo Food Production,  
Processing and Marketing  
in Kinshasa Market-based Project

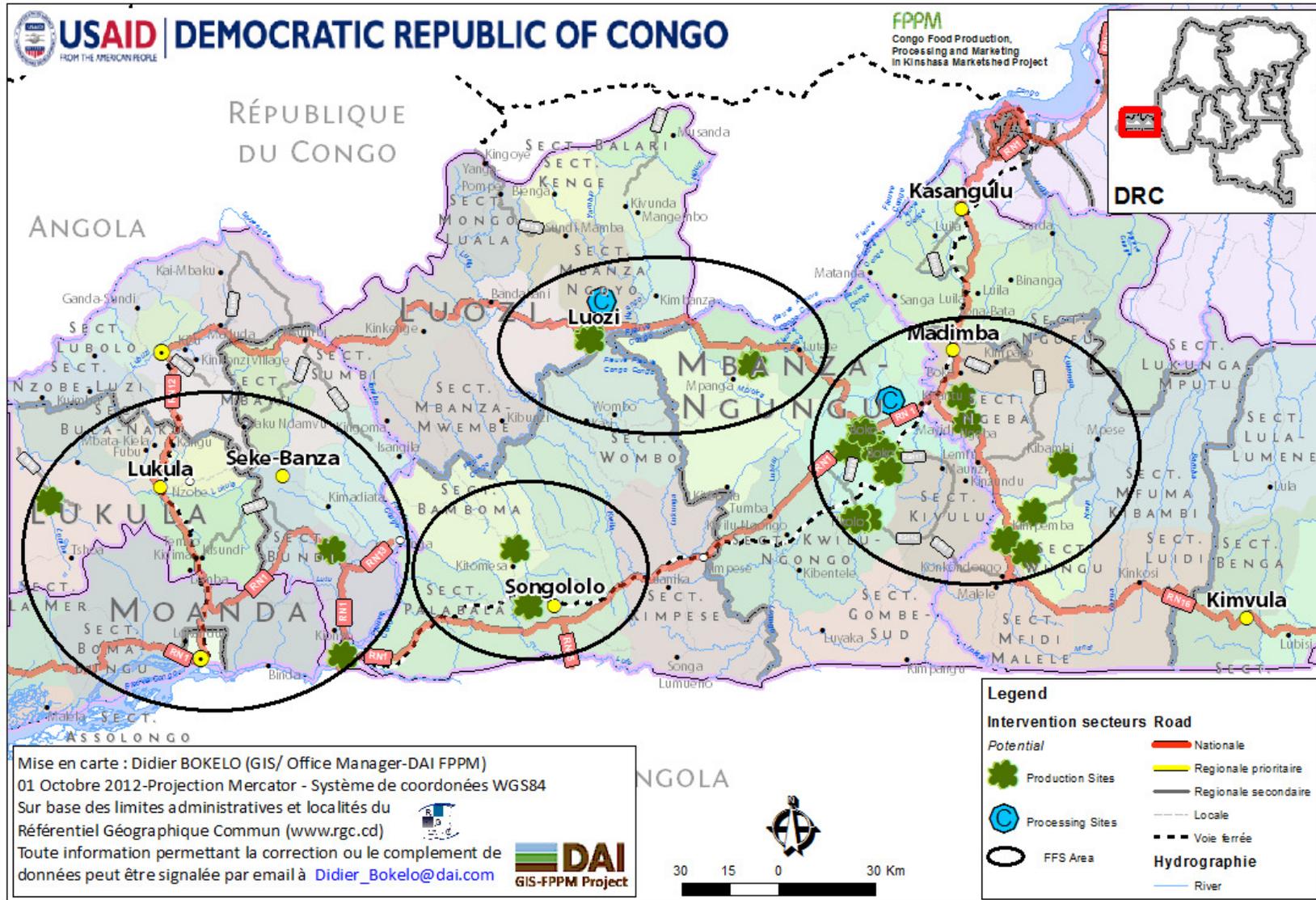


POTENTIAL FOOD PRODUCTION, PROCESSING AREAS AND FFS SITES IN PLATEAU DE BATEKE

FPPM  
Congo Food Production,  
Processing and Marketing  
in Kinshasa Marketed Project



POTENTIAL FOOD PRODUCTION, PROCESSING AREAS AND FFS SITES IN BAS FLEUVE, CATARACTES AND LUKULA DISTRICT



FPPM has assembled a Task Force comprised of technicians from the three components as well as specialists in M&E and GIS to visit the production areas within the clusters encircled in the maps above and identify more clearly the sites where storage and processing infrastructure can be rehabilitated or where it must be constructed and on what scale. The Task Force will produce an analysis of existing data on production and households by sector and territory and will assess accessibility of farms to markets and obtain feedback from producer organizations (POs) on their capacity to work together with FPPM on value chain improvements.

### **3.1.2 Improvements Made to Existing Infrastructure and Construction of New Infrastructure**

Aggregation centers are important points in the value chain not just to maintain product quality by managing the initial processing, drying, and stocking of commodities but also to facilitate the efficient delivery and pick up of agricultural product. FPPM has signed agreements with farmer associations for working together on improving market infrastructure.

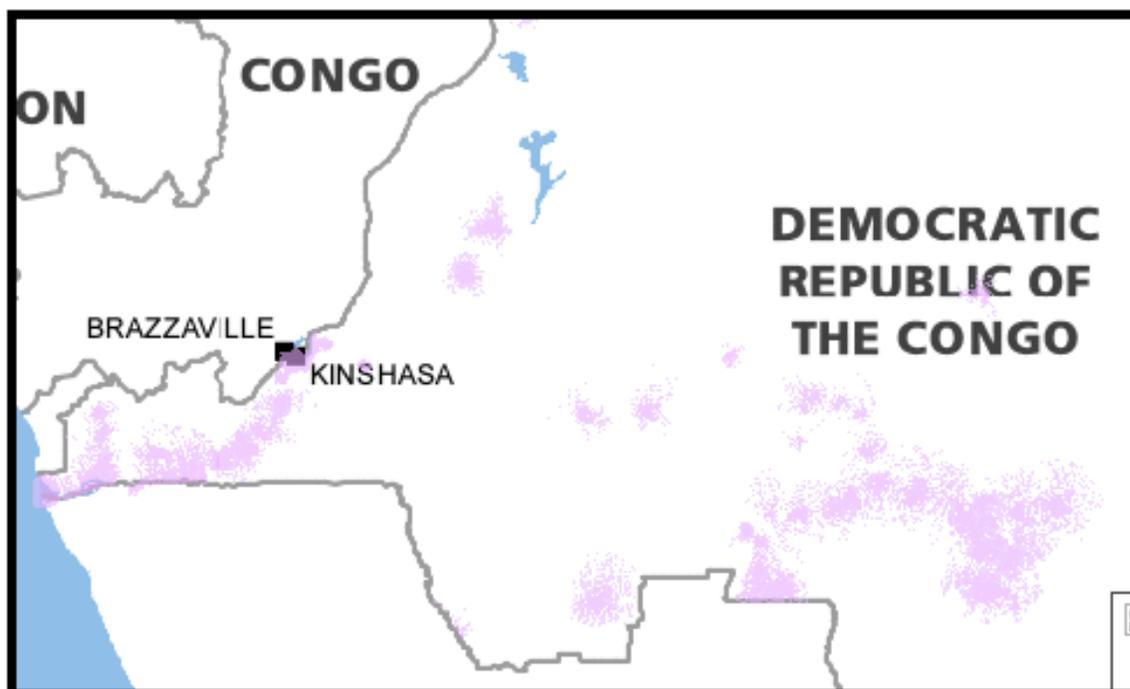
There are existing facilities, from the village level to terminal markets in urban centers, that need repairs of varying levels of complexity, or need to be upgraded in order to maintain product quality. In some cases, the repairing of a roof, laying of cement for floors or drying slabs, installation of ventilation vents, provision of pallets, or construction of drying tables can turn an existing site into a fully functional aggregation center. FPPM has already identified complexes that can be linked to local producer organizations as aggregation centers. The project will have to work with the organizations to ensure management systems are in place and to organize working capital. All work on existing infrastructure for partner producer organizations will include the specification of cost share or the arrangement of in-kind contributions.

FPPM will evaluate secure storage capabilities at all points in the value chain, from village level storage to final delivery to truck parks and processing facilities (small to large-scale mills).

Mid-way through Year 2, FPPM will release a solicitation for a civil engineering firm, or firms, to design and cost-out the various construction and rehabilitation activities related to preparing aggregation centers. The detailed design documents will be collated and will serve, in turn, as technical back-up to another procurement solicitation to select construction firms capable of carrying out the work. The goal will be to have sufficient aggregation/processing centers in place to deal, first, with the 5,000 metric tons of raw cassava that will be harvested in February/March 2013 and, second, to have the necessary infrastructure in place to deal with the 100,000 metric tons of raw cassava that will be harvested in September/October 2013.

## **3.2 Market Information Systems**

Producers lack market information to make informed production and marketing decisions. Without good market information, smallholders can be taken advantage of in negotiating fair prices by traders and transporters. FPPM has conducted a study of the market information environment for staple food crops at major truck parks and ports in Kinshasa and will expand this to provincial aggregation points in the Provinces of Bas Congo, Kinshasa, and Bandundu. It is already clear from field assessments, the experience of the Agrisud project, the baseline study, and information from cellphone companies, themselves, that a market information system using SMS data platforms is premature for production zones due to the lack of network coverage away from the main roads and towns.



### **Extent of AIRTEL Network Coverage in Western DRC (AIRTEL)**

The most effective way to transmit information to farmers is by radio; most households in the project production zones listen to radio transmissions regularly. Print media and TV are also good methods for information dissemination. For rural market centers and urban markets that are within the mobile phone network, a pilot program using SMS platforms is possible although costs of such a program need to be studied.

#### **A. Identify and vet market information points in both rural and urban zones (where agricultural products are shipped from and received).**

During the month of April and May 2011, the FPPM Component Two market information specialist identified terminal markets for agricultural products, so-called *parkings*, in Kinshasa. These include the following 16 locations:

1. Kingasani ya suka;
2. Q17 Mai, Kimbanseke;
3. Liberté, Masina;
4. AV, Mobutu;
5. PNR (Programme National de Riz);
7. Matete;
8. Luza;
9. Rond-Point Ngaba;
10. Gambela/ Lisala;
11. Masimanimba;
12. Kanda Kanda;
13. Somba Ziginda;
14. Matadi Kibala;
15. UPN;
16. Selembao.

In addition to the markets served by trucks, there are twelve river ports where agricultural products are shipped by boat from inland production zones: Five ports in Zone Six: Baramoto, Mamba, Force Navale,

Plantation et Elevage de la Mongala (PEM), Yabongota (Zelo); and seven other ports at different locations along the Pool Malebo of the Congo River, i.e. Maluku; Kombo; Safu; Kinkole; Orgaman; Celco; Mbassa; and Espace Dokolo.

For the rural markets in the project zone, the following terminal markets have been identified:

- Bandundu: Kiakia, Km600, Mbuala Yulu, Muzambala, Port Pendi, Bea Shegum, Ngyenkuem, La Lukeni, Kazamba, Dibaya Lubwe, Ebubu, Yolo, Sedzo, Kabamba, ETO;
- Plateau de Bateke: Mbankana, Bita, Ndumi, Imbi, Impuru, Menkao;

## **B. Collect market information on intermediate transfer points and terminal markets**

FPPM will set up a system of gathering market information in Kinshasa, using students and interns who will work on the first three days of the week (Monday, Tuesday and Wednesday) to gather data on the following products: cassava cossettes and micro cossettes, cassava flour, white maize, yellow maize, peanuts, white beans, red beans, niebe (white and red), rice, and soy. A short form will be standardized to report on the following information :

- Name of market;
- Name of product;
- Source of product;
- Quality of packaging;
- Weight / bag;
- Price / bag;
- Price / kg;
- Price / kg last week;
- Cost of transportation / bag;
- Taxes and other fees paid / bag;
- Cost of storage / bag;
- Total cost of marketing / bag.

Thursdays will be reserved for the compilation of information. The dissemination of market information will be on Friday.

## **C. Disseminate market information to producers and key market intermediaries using radio, TV, in addition to printed handouts**

Market information will be broadcast on community radio station networks as indicated below:

1. **Bandundu Radio Stations:** N'semo, N'kara, Tomisa, Mwinda, Venus;
2. **Bas Congo Radio Stations:** Vuvu Kieto, N'temo, RTK, Bangu, Muinda, Télé Kituadi, Ntomosono, Adri- Madimba;
3. **Plateau de Bateke Radio Station:** Radio Munko.

## **3.3 Processing and Value Added**

Processing is an added value activity as long as the value chain is performing well on the inbound and the outbound. That is, if raw agricultural product is of good quality, and the processed food, whether cassava flour, maize *semoule*, or cleaned and sorted peanuts or beans, is a quality, packaged product. To maintain the value-added, the supply chain and distribution system to consumers must be well organized and efficient. There are usually intermediate steps in processing agricultural products for household consumption. In Congo, there is intermediate processing near the farm for cassava, where tubers are made into cossettes. These are shipped to the urban market of Kinshasa, where there are many small and intermediate sized mills which produce the flour to sell to households. Many households prefer to go the local neighborhood mill on their own to get their cassava cossettes milled into *fufu*.

## **A. Procure materials and processing equipment**

FPPM will determine what materials and processing equipment will be required for the producer organizations or ONGs that are partners by hiring a design and cost engineering consultant who will prepare the detailed documents for processing units and market infrastructure that are then put out for bid.

#### **B. Design and construct micro-cossette and other processing facilities**

The FPPM Component Two team will rehabilitate or construct aggregation centers for storage of micro-cossettes, maize, soybeans, peanuts, and beans so that producers can better position their product for pick-up and delivery to market centers. The aggregation centers in many cases will also be processing centers where producers can add value to their production. Component 2 will continue to coordinate closely with Component One in the identification of producers to work with and site selection for aggregation centers. Component Two will work with FFSs providing technical input on post-harvest value chain modules and will work with Component Three on capacity building in order to ensure that associations and POs acquire and maintain the capacity to manage facilities over time

The design of aggregation centers which includes both buildings and machinery will depend on the sites selected and the partners

#### **C. Improve and rehabilitate existing processing facilities**

Where FPPM targeted sites have received processing equipment but were not trained to use it, or, in some cases, not provided with the expertise to install and start up the equipment, FPPM will assess the potential for operating the equipment and providing training to organization staff to manage the operations, or try to find an entrepreneur to take it over. In the case of the 25 ton/day maize mill in Bas Congo started up by Securite Alimentaire de Cataracts, FPPM is hiring an electrical engineer to help analyze the costs of getting the mill running through SNEL. FPPM is also working on a business plan for Diaming products and preliminary investigations indicate the need for improving the existing processing facilities, which requires the input of an international food engineering consultant.

### **3.4 Market Linkages**

FPPM is implementing a program of staple foods marketing following the value chain approach, from producers to semi-wholesalers, retailers, and consumers in Kinshasa and other urban centers. FPPM interventions will lead to reduced marketing costs, added value to staple foods, technical and institutional innovations, greater specialization and economies of scale, and enhanced competition.

#### **A. Develop pilot programs for long haul transport between aggregation centers and receiving areas in Kinshasa.**

FPPM will specifically work on reducing transport costs on the roads and rivers; introducing weights and measures as an objective basis for transactions; promoting grading and quality classifications, and reducing post-harvest losses. One way FPPM will help alleviate transport costs is by linking aggregation centers with key groups of *commissionaires* in Kinshasa truck parks, who in many cases are also truck owners, and to introduce the use of formal service contracts with scheduled routes. This program, in conjunction with post-harvest planning and aggregation, will be in the interest of transporters since it will: (a) guarantee volumes at specific places and times - without the significant market discovery costs usually paid by the commissionaires; (b) reduce the risks of market loss due to poor quality product; and most critically, (c) shorten both field assembly and market-clearing time (due to the faster sales times of superior quality product).

#### **B. Organize producer networks to supply processors**

FPPM is working with Matchem, and advised on post-harvest techniques that resulted in the planning by Matchem to make some innovations in drying micro-cossettes. Once fully operational, FPPM will work on getting product to Matchem and helping with micro-cossette promotion. Other partners such as Groupedi in Bas Congo can expand the producer networks they are working with but need help with processing equipment in order to handle any increase in supply.

**C. Conduct market test of nutritional products and innovative local foods and support the promotion of composite flours, fortified foods, and weaning foods**

On the basis of market testing its product and getting lab results, FPPM is focused on helping Beni Foods with improving its business plan, developing a better product and upgrading its packaging. Other market tests will be designed and planned for organizations such as Groupedi (unfermented manioc flour) and Diaming (composite flours)

**D. Assist with marketing programs for existing suppliers (eg, TIFIE and IBI village)**

### **3.5 Cross-Over Activities**

#### **3.5.1 Farmer Field Schools (FFS) on marketing, market information systems, and processing**

Throughout Year 2, the Farmer Field Schools (FFS) will be conducting training on production, as well as post-harvest conditioning, storage, and processing. The same trainers who implement the production FFS will also prepare and carry out the post-harvest and on-farm processing modules. The FFS trainers, drawn from the various associations hosting the FFS, are typically agronomists with some practical expertise in both production agriculture and agro-processing.

FPPM will transfer technology on post-harvest techniques (storage, sorting and bagging) and processing to producers through the Farmer Field Schools, focusing on the production of cassettes (especially micro-cassettes) and *kimpuka*. The training modules on farm household-level processing will be developed in the first quarter of FPPM activities and a program for curriculum will build on what was already developed under an earlier USAID cassava activity. FPPM will begin to establish micro cassette processing units in the 2<sup>nd</sup> half of the project and will conduct micro-cassette processing training in the 2<sup>nd</sup> half of the first year.

#### **3.5.2 Training Bank Loan Officers on Agricultural Value Chains**

In project Year 1, the FPPM Marketing Manager participated in a training exercise sponsored by USAID with two local banks, BIAC and TMB, in conjunction with the DCA facility, to train loan officers in value chain analysis. Personnel from both banks expressed appreciation of the exercise and FPPM is planning to repeat such training in Year 2.

#### **3.5.3 Training Implementing Partners on Business Plan Development**

The Component Two team plans to contribute to capacity building of IPs with targeted training in business plan development as a prelude to preparation of bankable proposals for the construction or rehabilitation of aggregation or processing centers.

#### **3.5.4 Updating the Value Chain Studies**

At the request of USAID/Kinshasa, at the beginning of Year 2, a consultant will update the value chain assessments made at the beginning of Year 1. The findings of the updates will contribute to FPPM implementation strategy.

## 4.0 COMPONENT III: Increased Capacity to Respond to Market Opportunity

The huge demand from the Kinshasa food market has been sustained historically by the private sector. The FPPM strategy to build the capacity of the private sector to exploit market opportunities is animated by the search for efficiencies, quality improvements, and risk reduction in local production. The strategy will improve the efficiency of the food supply chain to deliver greater quantities of food at prices that improve access and use by the undernourished, food insecure inhabitants of the marketshed, i.e. about 5.4 million in Kinshasa, 2.4 million in Bandundu, and 1.6 million in Bas Congo. Implementation of such a strategy requires FPPM to find, screen, and select partners who can leverage change from the demand side back up the supply chains and from the supply side to strengthen the development and linkage of primary producer groups to points of aggregation, transport, processing, and marketing.

### 4.1 Farmer Field Schools

FFSs are groups of 20-25 farmers (female, male, and mixed male and female) who learn experientially to manage their farms as businesses. In Africa, FFSs have evolved to serve as focal points in the adaptation of improved farming practices, local savings mobilization and the strengthening of social capital linkages to public and private sources of information, good and services. They have taken over the role of the long-vanished national extension services.

Under FPPM, FFSs were intended to be the sustainable delivery system for many types of agricultural productivity solutions. Although the implementation was delayed in Project Year 1 due to the elections and the revised work plan, in Year 2, FPPM will organize FFSs under the aegis of producer organizations (POs), initially around seed multiplication, a market-based activity with tangible results, and then use FFS as the basis for other capacity enhancements. Making Cents has already begun Year 2 activities with a Training of Trainers (ToT) program to be managed through the FFSs.

### 4.2 Making Cents International

During Year 1, Making Cents developed a curriculum and training program to give local organizations, such as NGOs, CARGs, existing associations, etc., and enterprises that work with small scale producers and other value chain actors key business, financial, and entrepreneurship skills.

The objective of the training program is to increase productivity and income levels of key actors along the cassava, maize, and grain legumes value chains connecting to the key markets of the Kinshasa market shed. Through improved business and financial literacy knowledge, strategies, and technical skills and practices, FPPM will create increased productivity of crop production while promoting efficiencies in handling, storage, transportation, processing, and marketing, with the overarching goal of stabilizing the food supply of the DRC's main population center.

The Making Cents program comprises four phases; Phase 1 was completed in the final quarter of Year 1:

**Phase 1: Work planning and Assessment :** A comprehensive, in-country assessment of the training needs of the targeted audience of agribusinesses and producers—and of the training capacities of local institutions and NGOs—in order to develop and adapt relevant curricula and ascertain those local institutions best qualified to deliver the training, once developed.

Making Cents will undertake the implementation of Phases 2 – 4 in Year 2:

**Phase 2: Curriculum Development and Adaptation:** Development of training and ToT curricula focused on sharpening business and entrepreneurial skills to meet market demands and opportunities. The training curricula will comprise a business skills module—and a Simulation Game based on agricultural cycles—to help trainees make business decisions based on market conditions. This work will entail testing the materials once adapted. The ToT course will cover facilitation skills, as well as an

understanding of how business skills are developed in general and what FPPM's course entails specifically.

**Phase 3: Training Roll-Out:** Provision of ToT training to groups of 20, calibrated to the needs of FPPM, and to facilitating the training of master trainers, certified to train other trainers. Master Trainers are to be developed and trained through the implementation of the core TOTs.

**Phase 4: Follow-up and M&E:** Follow-up evaluations after Phase 3 to ensure proper roll out, scale up, and replication of the training by trained local trainers and Master Trainers.

### 4.3 International Fertilizer Development Center (IFDC)

#### 4.3.1 Agro-Input Market Information Systems

There is no agro-input MIS in DRC and little accurate information available on current levels of production, importation, and consumption of agro inputs such as seeds and planting materials, fertilizers, and crop protection products. The lack of government enforcement of the proposed regulatory framework on pesticides (see the 2005 presidential decree) means that there is no publicly known directory of authorized pesticides, and importers, wholesalers, and retailers. Similarly, the limited availability of pesticides and fertilizers in small packages that would fit the needs of small farmers translates into uncontrolled repacking of these inputs, making it very difficult to guarantee the quality and origins of these inputs, thereby increasing the risk of misuse by farmers, fraud, resistance to pesticides, environmental risks, and poor economic benefits for farmers.

IFDC will undertake a market assessment of mineral fertilizer early in Project Year 2. FPPM will devise a strategy, based on the report findings, for moving forward.

#### 4.3.2 Agricultural Market Information Systems

Existing market information systems on agricultural commodities are limited in scope and coverage. At best, MIS are providing price information for some commodities, e.g. FAO urgency programs reporting monthly consumer prices for selected food crops; Agrisud MIS for vegetables on selected markets in eastern provinces, etc. These MIS cannot provide commercial information that can help FPPM value chain stakeholders to make informed decisions. Under the SECID project, a dedicated MIS was deployed from 2006-2008 in 6 provinces, but ended when the project ended.

IFDC will work with the FPPM Component Two marketing team to assess strategies and technical options. IFDC will profile and map key stakeholders of the project who will receive and share information through the FPPM system. This includes individuals and companies in wholesale markets and ports, aggregation centers, parking areas, as well as in partnering SMEs, media, and public and institutional organizations.

## 5.0 Cross-Cutting Activities

The most important FPPM cross-cutting activities include gender considerations, environmental mitigation and management, and monitoring and evaluation.

### 5.1 Gender

One constraint to the achievement of more rapid agricultural growth in the DRC, as the International Food Policy Research Institute (IFPRI) notes in a recent report; *is the persistence of gender inequalities*. The report asserts that, although women are the backbone of DRC's agriculture, *they face various constraints in increasing their productivity and incomes. On average, women are estimated to work in the agricultural sector for 70 hours per week versus 42 for men.*

FPPM will address this mismatch through a holistic approach to gender inclusion that pulls women into both project activities and project benefits. The goal will be to build the outlook, skills, and interest of women so that they can claim their share of the improvements in farm-to-market chains that result from FPPM activities.

FPPM has contracted with IFPRI to undertake a gender assessment in the first quarter of FPPM Year 2. This assessment, building on the recently released women empowerment index in agriculture (WEIA), prepared under Feed the Future initiative by USAID, IFPRI, and Oxford University, will collect and analyze gender disaggregated data and information on the following indicators: (1) how engaged women were in decision-making about agricultural production, processing and marketing; (2) what sort of access women had to resources, e.g. land, credit, seeds, outputs, and how involved they were in resource-related decision-making; (3) the extent to which women controlled income use; (4) whether women were able to play leadership roles in the community; and, (5) how women use their time. Once the report is finalized, FPPM will integrate its recommendations into the program.

### 5.2 Environment

Central to FPPM environmental compliance is implementation of the project Environmental Management System (EMS), based on the recommendations of the Environmental Mitigation and Monitoring Plan (EMMP) that was issued in draft at the end of Year 1. The EMS is designed as a system comprising screening checklists, mitigation measures, and monitoring plans. The EMS will be an easy-to-use system, making environmental compliance integrated and effective, taking as much guesswork out of the task as possible and building in sufficient documentation to hold up to post-activity performance audits.

At the request of USAID, FPPM also prepared a Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) to guide project use of agricultural chemicals; the FPPM PERSUAP will also likely serve as a basis for the preparation of PERSUAPs for other USAID-funded projects. The PERSUAP, submitted to USAID in draft at the same time as the EMMP, will be incorporated into the EMS.

### 5.3 Performance Monitoring

FPPM's three thematic areas—agricultural productivity, market efficiency, and private sector capacity building—result in a corresponding number of activity sets. Each set will generate outputs and impacts to increase food security and reduced poverty in the Kinshasa marketshed through broad-based agricultural growth. Tracing causality under FPPM will be demanding, requiring a robust and reliable M&E system that both captures and explains project results and impacts to a diverse audience of stakeholders, counterparts, and beneficiaries. DAI proposes to match USAID's commitment to high-quality M&E with adequate staff, strong analytical processes, and customized tools, especially related to GIS-linked reporting.



### 5.3.1 CHART OF PROGRAM OBJECTIVES AND INDICATORS

