Boosting European Market Access to Malian Mango Growers

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Abstract—FRUILEMA, a Malian fruit and vegetable economic interest group (EIG), is acquiring the tools and resources needed to meet the requirements (GLOBALGAP certification) for exporting Malian farm products to international markets. Starting with the highly marketable mango fruit, an ICT solution has been developed to enable the identification of producers, to trace farm plots and produce, and to obtain quantitative and qualitative information on produce to support analysis and decision-making. The information is accessible via a web-enabled platform and can be updated using Internet and PDAs. The information is disseminated to producers, trackers, collectors, importers, and other actors in the mango value chain.

Index Terms—Agriculture, Geographic information systems, Information systems, Software

I. CASE (CONTEXT, NOVELTY AND SIGNIFICANCE)

AGRICULTURAL exporters from Mali face many requirements and constraints if they wish to sell to the European market. They need to have exact knowledge about the quantity and quality of farm products, places and periods of production, production inputs used, etc. Meanwhile, international consumers increasingly want to be able to trace the products they buy back to the farmer and plot where it came from. For importers, it is important to be able to assess the quality and reliability of their exporting counterparts. For producers, it is important to know the exact surface of their production areas and the requirements of the market. As analysis during project formulation has shown, agricultural producers in Mali rarely have a correct estimate of their production capacity, often over- or underestimating their real production capacity. This has led to challenges in developing realistic production plans, procuring the right amounts of farm inputs like fertilizers, and being able to deliver the quantities of fruits promised to exporters.

To minimize these challenges and optimize the meager resources available, IICD's Senegalese partner Manobi has further developed and adapted its existing platform to suit FRUILEMA's needs. As an association representing 790 small producers and five exporter groups throughout the country, FRUILEMA wants to use all the data gathered to

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further inform partners about the supply process and improve north-south linkages that promote not only trade, but also mutual understanding and collaboration. This platform allows for the better identification of producers, to know their collective production forecasts, and to trace the entire chain of activities, from the purchasing of agricultural products back to the producer. During the first year of the system being in operation, FRUILEMA was able to use the platform to convince European fruit importers to work with them, resulting in two contracts for the 2008 mango harvesting season.

The platform was developed during 2007-2008, and involved the identification and translation of all processes in the production and "conditioning" of mango products, software development as well as capacity building of the five exporting organizations involved. The platform was developed in collaboration with the five exporting organisations under FRUILEMA. Since the launch, the platform is being further developed to allow for the use of PDAs and other mobile devices to enable direct data collection and data uploading while in the field at the farmers' site, thus expediting the data collection, management and dissemination processes.

II. DEMONSTRATION

The demo will showcase the possibilities offered by the platform, by showing the producer, plot and produce information; tracking plot locations and size using *Geographical Positioning Systems (GPS)*; aggregating information for the use of export planning; and other functionality offered by the platform. If possible, the newly developed access modalities *(mobile & PDA)* will be showcased live as well. The different user levels and their respective tasks and information provision within the system will be demonstrated.

Although the existence of a website strengthened the credibility of the exporting partners and even led to concrete exporting contracts with companies in the Netherlands and Belgium, developing a database with all the necessary information does not guarantee a successful market information system. Many other factors need to be taken into account such as access to credit, physical infrastructure, capacities and marketing. The lessons thus far gained will be discussed during the demonstration as well.