

# Virtual Cooperatives: ICT for African Cashew Farmers

### The Challenge

In developing and emerging countries, small and micro enterprises – often part of the informal economy – face huge economic challenges such as low productivity, high transaction costs, and often a lack of access to markets, to logistical services and to financial instruments. Small-scale farmers in rural areas are particularly affected by these constraints when dealing with the established economy.

Although collaborative relationships exist between small farmers and buyers or traders further along the value chain, business transactions are often burdened with inefficiencies and a lack of transparency. The cost is borne in most cases by the informal economy, e.g. when small scale farmers are suffering from exploitation due to a network of intransparent intermediaries.

Even though there might be a mutual interest between representatives of the formal and informal economy to do business with each other, this is prevented by a lack of common business modalities that are meaningful and acceptable to both sides. For example, a bank might not be able to offer a loan to an informal entrepreneur because it



simply has no adequate methods in place to deal with the related risks.

Raw Cashew nuts are being weighed, Photo: SAP

#### Our Goal

The SAP-ACi partnership "Virtual Cooperatives" intends to provide solutions related to market linkages and transparency within the Cashew production and processing value chain.

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"Technology for emerging economies" is concentrating on the needs of developing countries to support their socio economic development. By its nature the sectors of interest are SMMEs (Small Medium and Micro Enterprises), health, education, public sector and NGOs. For more information, visit **www.sap.com/research**.

African Cashew initiative (ACi): The ACi focuses on organizing and supporting cashew producers in five African project countries -Benin, Burkina Faso, Côte d'Ivoire, Ghana and Mozambigue - in order to enable them to increase their yields and the quality of their products, to improve business linkages with the medium and large scale processing industry, brokers and traders develop advanced marketing strategies (including quality management). ACi fulfills its project components through its implementing partners including the African Cashew Alliance (ACA), FairMatch Support, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and TechnoServe (TNS). Funding partners of the initiative include the Bill & Melinda Gates Foundation, the German Federal Ministry for Economic Cooperation and Development (BMZ) and various private sector partners, like SAP.



## Fact sheet

Information and Communication Technologies (ICT) provide the means to enhance the productivity of Cashew farmers, to strengthen farmer cooperatives, and to enable them to do collaborative business with the established economy in a transparent and sustainable way.

### **Our Approach**

Business and technology related interventions are guided by the so called Living Lab methodology. This holistic approach includes business process innovations, added value propositions for each stakeholder, conceptual revenue models, organizational capacity building, scalable system design, development and real life roll-out as well as a close and regular interaction with end-users from diverse cultural and social backgrounds.

The prototypical software solutions comprise mobile applications for small holder cashew farmers, organized in cooperatives, for logistical coordination, bulk selling, traceability of produce, and market information access.

They enable collaborative business processes between the organized producers and agricultural processors, wholesalers, retailers, traders, and financial and logistical service providers to increase the productivity and profitability in particular for participants at the base of the economic pyramid. This not only boosts local economic activity but holds the potential to improve the socio-economic situation for a vast number of under-serviced rural inhabitants.

In addition, established players including multinational cooperations will profit from enhanced transparency and reliability of the supply chain. Existing economic activities between formal and informal players will be strengthened, and regular business transactions with Base of the Pyramid markets will become viable for the established economy.

#### Impact

A 'Living Lab' has been successfully established at the Wenchi Cashew Farming Cooperative in Brong Ahafo, Ghana. End user workshops have been conducted to validate use cases for Cashew sales and logistics, design and functionality of the software applications and to raise stakeholder awareness of ICT potential.



Major efforts went into the development of the prototypical information system for real life piloting. The first live pilot has been

Using ICT in the Cashew sector: Registering the weight of each sack filled with raw Cashew Nuts Photo: SAP

conducted during Ghana's cashew

season from March to June 2011. About 400 farmers in 5 participating buying stations have been registered. All together more than 100 tonnes of raw cashew nuts have been traded via the system. Training material, regular communication to local stakeholders, change management activities, hardand software deployment, etc. have been set up. In addition, basic equipment has been purchased in order to ensure that important facilities for the systemoperation will be in place (e.g. barcode stickers, Smartphones etc.).

#### Partners

#### Contact

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