

ISSER POLICY BRIEF

Innovation Platforms As Strategic Action For Agricultural Development: Lessons From the DONATA Cassava project

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About 5% of Ghanaians representing 1.2 million people, are food insecure. Another 2 million people are vulnerable to become food insecure (WFP, 2009). Food insecurity persists in many households because food value chains face multiple challenges. Food crops production is dominated by smallholder farmers who depend mainly on rainfall and sell their produce at high season for relatively lower prices on local markets or to agro-processing enterprises that pre-finance farmers' production activities. The cultivation of these crops is characterized by limited use of high yielding varieties, fertilizer, mechanization, and post-harvest facilities. As smallholders lack a reliable and affordable supply of credit and agro-inputs, and lucrative market opportunities, their average yields are low. This low productivity is compounded by high post-harvest losses.

Cassava, (*Manihot esculenta*), a common root tuber staple, offers opportunity for household food consumption and enhanced growth in income through its sales to local markets and agro-processing industries. This opportunity has not been fully realised due to the slow adoption of improved cassava varieties arising from poor access to planting material, and weak linkages between cassava value chain actors. Other factors such as lack of access to timely credit and remunerative markets are disincentives which do not encourage farmers to plant the high yielding varieties. In addition to these challenges, most farmers have limited knowledge of the attributes of cassava varieties for different purposes (cassava chips, starch, fufu, gari), and inefficient production practices. In this regard, interventions that support farmers to address these challenges and improve their productivity is likely to enhance cassava productivity for food and also contribute to agricultural development in Ghana.



Pictures of cassava crop and some of its food products such as fresh cassava, cassava chips and grits

In recent times such interventions are being implemented through the collaborative efforts of government, private sector, farmer-based organisations and local NGOs. In spite of this, the sector still faces low productivity and under-investment in research and agribusiness initiatives. To address these problems, innovation platforms as collaborative arrangements between diverse stakeholders are continuously being set up to provide inclusive growth, empower smallholders and establish efficient value chains.

What do we mean by value chain: A value chain comprises an entire system of production, processing and marketing, from inception to finished product. It consists of a series of actors, such as farmers, traders, processors, wholesalers, retailers and consumers, linked together by flows of products, finance, information and services. Value chain supporters such as government regulators, financial institutions, researchers, agricultural advisors, and transporters provide various services to the chain (IIRR policy brief 1).

A well organised innovation platform can effectively coordinate production and marketing activities to upgrade food value chains and make them more productive. This policy brief draws on insights from innovation platforms of the cassava value chain under the *Dissemination of New Agricultural Technologies in Africa (DONATA)* project in Ghana.

Background of a cassava innovation platform

The African Development Bank funded programme on Dissemination of New Agricultural Technologies in Africa (DONATA) was promoted by the Forum for Agricultural Research in Africa (FARA). In Ghana, its cassava project was implemented by the Crops Research Institute of the Council for Scientific and Industrial Research (CSIR-CRI) from 2011 to 2014. With the support of a project manager from CSIR-CRI, the District Agricultural Development Unit (DADU) set up five innovation platforms (IPs) in the Wenchi Municipality of the Brong Ahafo Region. The IPs involved value chain actors such as agro-input dealers, local traders, cassava farmers and processors because the group should not be too big to remain dynamic; hence these actors were invited to join as they had special capacities related to the main value chain problems identified..

Innovation platform (IP) is like a cooking pot to which the actors involved jointly contribute to problem diagnosis, identification of opportunities, coordination, experimenting, learning and implementing of ideas to address problems in a value chain. An IP involves a group of individuals (who often represent organizations and value chain actors) with different backgrounds, skills and interests. Actors whose skills are not needed for a particular cooking activity may stay away as in Figure 1.



Figure 1: Diagrammatic representation of a typical innovation platform

Source: ILRI/Bonaventure Nyotumba

A local NGO together with the DADU formed a coordinating unit which closely collaborated with the actors of the IPs. The coordinating unit actors were trained in IP facilitation, experimentation and group dynamics to be able to effectively perform their task. The project manager served as a link between the coordinating unit, FARA and the funder to give feedback and provide funding for planned activities. DONATA Ghana has focused on improving productivity and income of smallholder cassava producers, processors and traders through the transfer, sharing and dissemination of improved technologies and indigenous knowledge to and among actors along the cassava chain based on three priority points. These are: (1) Access to improved cassava varieties and enhanced soil fertility management; (2) Use of herbicides to control perennial weeds in cassava; (3) Cassava product development and market access. The IPs facilitated joint experiments on high yielding cassava varieties, their adoption and utilization at the farm level, and created opportunities for input dealers, traders and transporters to make their services readily available to farmers and processors. An FM radio station disseminated the information on the project approach and outcomes to a larger population in the district.

List of key activities of the cassava IP

1. Identifying new and emerging constraints from the IPs
2. Meeting to review actors and discuss innovation platform activities based on the existing entry points
3. Establishing demonstration plots on farmers' cassava farms for joint experimentation and experiential learning
4. Creating space and trust for knowledge sharing between scientists, farmers, local NGO technical staff and agricultural advisors
5. Building IP cassava processing centre and training actors in basic book keeping and entrepreneurial skills to manage processing enterprise
6. Disseminating proven cassava varieties and technologies through the media (local FM radio station)

Source: DONATA project report, 2013

Lessons from the cassava value chain IPs

The activities of the coordinating unit has led to the creation of functional IPs that continue to meet to discuss emerging value chain opportunities and problems, coordinating actions to solve them. Though the project has ended, the DADU still plays an supervisory and advisory role to help IP actors to address conflicts and a coaching role to provide information on market options. Farmers involved in the IPs have considerably increased their yields by experimenting and learning good practices and being able to timely access high yielding cassava varieties, inputs, and transport services arrangements from dealers within the IPs. Processors have also been trained in good practices and have obtained mechanised equipment that helps them to produce more gari (cassava grits) faster than before. So far, both farmers and processors continue to sell at existing local markets for household consumption, as it remains difficult to effectively link up and sell to large-scale buyers within the regional or national value chain.

The value chain actors mobilised themselves to plant the introduced high yielding varieties, and as a result produced a lot of fresh cassava and gari in the district. Unfortunately, they were not able to organise themselves and build their capacity to link to a large-scale buyer as a source of guarantee market. This was caused by the lack of any coordinating structure at regional and/or national agricultural levels that could link private sector actors (buyers) directly to the district agricultural unit or IPs. This linkage is important for strengthening food value chains, because large-scale private buyers generally do not like to bear the transaction costs of farmer organisation and training on product standards and specifications. They prefer to work with a recognised coordinating unit that can help farmers aggregate the produce for easy bulking and transportation. Improved access to an industrial market is an important motivation for farmers, processors, input dealers and transporters to continue their participation in the IPs. Hence there is a need for IP coordinators and DADUs to engage private sector actors to share information on their market requirements. It also calls district directors to inform potential large-scale private actors about what is being produced in their district.

The study shows the critical role that researchers can play for inclusive development. District Agricultural Officers have a general coordination role, while researchers can take the lead, network, facilitate and monitor a project-based IP approach, ensuring focus and momentum. Researchers are respected sparring partners at lower as well as higher levels; they are in the position to pose critical questions and organise accompanying research when needed.

We conclude that IPs can be effective for agricultural development if strategic actors are mobilised at different levels to address value chain problems. In Figure 2, we propose how a cassava value chain innovation platform could be supported by a district coordinating unit overseeing an organisational link to a national coordinating unit, as a source of market access information.

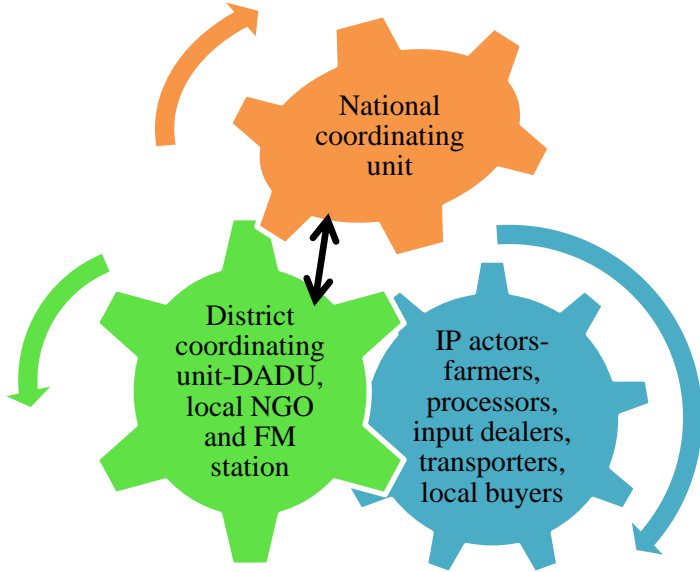


Figure 2: Diagram of proposed IP coordination for the cassava value chain

Hence we recommend:

To set up training for IP leaders and DADUs, how to effectively support the development of food value chains at local and district level.

To encourage IPs at local and district levels, to closely collaborate with regional and/or a national coordinating units. The latter have contacts with strategic actors such as private companies, (inter)-national NGOs and donors etc., needed to address higher level development issues, such as access to industrial and urban markets.

DADUs cannot fulfil this network- and coordinating role without proper support from the Ministry of Food and Agriculture (MoFA). They need IP-related training; support in networking; and should be backed by financial support by MoFA at national, regional and district levels.

Provide organisational support to enhance the development role of local researchers and agricultural units. This will give them the legitimacy and authority to engage with local actors and address constraints in cassava value chains.

The public sector must formulate and coordinate comprehensive agricultural policy and regulatory frameworks within which the development projects initiated by partnerships can operate. This would evade overlap and inefficiencies of partnership or project activities. Agricultural partnerships cannot establish efficient value chains with poorly resourced and highly bureaucratic District Agricultural Development Units (DADU) of the Ministry of Food and Agriculture.

Ensure involvement of private actors in partnerships arrangements. The government should collaborate with the private sector to provide relevant infrastructure, logistics, and funding for DADU.