

Brief no. 1: Challenges for Extension Services in HQCF Value Chains

KEY MESSAGES:

The market for High Quality Cassava Flour (HQCF) provides opportunities for rural households in Africa to add value to cassava.

Extension services have a key part to play to establish the value chain, and should address the following challenges:

- Assist smallholders to meet the quantity requirements of buyers by organising the pooling of raw materials.
- Assist smallholders to meet the quality requirements of buyers by providing simple, easily verifiable quality monitoring support.
- Collaborate with other partners along the value chain, including private investors, banks, standards and food and drugs administration agencies, and researchers.
- Understand the circumstances under which smallholders operate and work within their peculiar limitation to recommend appropriate technologies for ensuring the sustainable inclusion of smallholders in the value chain. There is no 'quick fix'.
- Understand the nature of large markets and prepare smallholders to cope with its negative effects and take advantage of its positive ones.
- Be aware of the power equation between men and women in cassava processing, and how their intervention may shift its balance for or against one group or the other.
- Be able to adapt to changing situations.

The logo for C:AVA, featuring the letters 'C:AVA' in a large, serif font. The colon is positioned between the 'C' and 'A'. To the right of the text is a photograph of green cassava leaves.

Cassava: Adding Value for Africa

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Challenges for extension services in the sustainable inclusion of smallholders in the emerging high quality cassava flour value chains in Africa

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Abstract. Based on the premise that smallholders often get excluded as markets become more commercial, this paper draws lessons from the Cassava: Adding Value for Africa (C:AVA) Project by exploring the main issues and challenges facing extension service partners in five African countries (Nigeria, Ghana, Tanzania, Uganda and Malawi). These lessons include issues around competitiveness in the supply of raw material, assisting smallholders to produce value-added products competitively, working with a range of partners at different stages in the value chain to take pilot studies to scale, ensuring and maintaining quality, selecting appropriate technologies for different circumstances, anticipating negative effects of the market environment on smallholders and ensuring that strategies for ensuring benefits for women and other disadvantaged groups are incorporated into extension service operations. It concluded that one strategy does not work in all countries and, while positive government support for cassava development is helpful, the real challenge is in the need to target markets according to realisable capacities of the smallholder actors in the value chain.

Cassava is one of the most important food crops of Africa. Current studies have however identified clear gaps in the market for some cassava products in Africa. The most promising market to develop is that of high quality cassava flour (HQCF) and its use as a replacement for wheat flour in the bakery sector, in plywood manufacture and also as an alternative or component in traditional cassava products (e.g. instant fufu in Ghana; fermented fufu in Nigeria). The main reasons for focusing on HQCF are that value can be added at the rural household level by processing of the intermediate product (cassava grits or wet paste), thereby increasing incomes for farmers; the requirements for capital investment is lower and less environmental damage is caused than starch manufacture; and many farmers already know how to create the basic raw material for HQCF (grated cassava).

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Therefore a huge technology leap at the farmer level is not required to attain the developmental objective. Consequently, HQCF offers the easiest entry point, benefits the most smallholder farmers/processors in the immediate future and provides a springboard for investment in other products.

The C:AVA project approach is based mainly on three most potent intervention points to develop HQCF values chains: i) ensuring consistent supply of quality raw material, i.e. cassava roots and grits; ii) developing financially viable intermediaries; and iii) ensuring the confidence of end users of HQCF as a food ingredient or industrial raw material. Extension service providers are contracted to provide services (incl. extension, facilitation of market linkages, and technology transfer) to cassava farmers and processors that would improve cassava cultivation and postharvest handling in ways that will add value to the crop and benefit the extension clientele.

The following lessons have been learned during the implementation of the C:AVA project:

Competiveness of the raw material and assisting smallholders to produce value-added products competitively: Two forms for competition are prevalent at the smallholder level in the HQCF value chain: the competition to supply raw materials (cassava roots, grits or wet pastes) for alternative uses and the competition to meet quality and quantity requirements of larger scale buyers. In the first case, the challenge for extension services is to understand that smallholders have alternative uses (e.g. traditional food products) for the cassava roots, grits and wet pastes other than the HQCF value chain. In the second case, large scale buyers of cassava roots, grits or wet pastes often make requirements for quantity and quality of raw materials that are not easily met by smallholders. Extension services need to help organise and pull raw materials from several smallholders in an orderly and transparent manner to ensure that they meet specific quantity requirements and gain enough trust in doing so that all the smallholders in the supplying group can perceive the extension service provider as an unbiased helper who has their interest at heart. Extension services also need to provide simple, easily verifiable quality monitoring support for smallholders to meet the buyers' demand for specific quality requirements. The extension service also needs to ensure that the group understand how this exercise helps them to compete against others in meeting the needs of the end-user. The extension services should work with the end-user to secure a befitting reward for compliance with quality requirement or conversely a befitting punishment for failure to comply with quality requirements. The preference should be towards rewarding compliance rather than punishing deviance.

Working with a range of partners at different stages in the value chain to take pilot studies to scale: Pilot studies by the Natural Resources Institute (NRI), United Kingdom; the International Institute of Tropical Agriculture (IITA), and their collaborators in West Africa (University of Agriculture, Abeokuta and the Food Research Institute, Accra) on the pros and cons of different methods for organising processing and scales of production are just becoming widespread practices especially in Nigeria and Ghana. Small-scale processes using simple technology suited to village level enterprises have the advantage of being located very close to the production sites of cassava. This minimises the transport costs associated with the movement of large quantities of relatively cheaper cassava roots (Adebayo et al., 2009). To make successful pilot studies widespread best practice, extension services need to work all along the value chain with other partners including private investors, banks and insurance companies, standards and food and drugs administration agencies as well as their traditional allies in the technology transfer circle - researchers. The ability and willingness to collaborate in this manner would be to the advantage of smallholders who are often highly dependent of the extension service because of their long standing history of working together.

Selecting and promoting appropriate technologies for different circumstances: The C:AVA strategy focuses in particular on the technical and financial aspects of the value chain, for example improving processing techniques and assisting actors in gaining access to credit. While these appear to have worked very well in Nigeria and Ghana, the project design in Tanzania and possibly Uganda and Malawi should have given more attention to more intangible factors that determine the project's outcomes such as advocacy and publicity campaign to raise awareness and create support amongst politicians as well as consumers;

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facilitation of permanent producer platforms to strengthen linkages between value chain actors, disseminate market information and new technologies and raising awareness on costs and reasonable prices for HQCF and its intermediate products. This is because value chains for HQCF in the sense that have been found in Nigeria and Ghana in the last one and a half year have been found very weak or non-existent in Tanzania. Even in Uganda, C:AVA is only hoping that the interests currently generated will produce some rapid results in the sector. As a contribution to building the value chain for HQCF in the Tanzania, and possibly Uganda and Malawi where the value chains for HQCF are relatively younger than Nigeria and Ghana, there is the need for C:AVA and others to actively provide financial support for rural processors for processing equipment until they have built the requisite skills (technical, business and entrepreneurial) and confidence to stimulate determined investments in the chain. The basis for this is that C:AVA experiences especially in Tanzania and partly in Uganda is that the circumstances under which smallholders operate differ between countries and in fact within countries and communities. For instance:

- Unlike Nigeria, there is no deliberate government drive to make HQCF an important item in the government agenda.
- Unlike Ghana and Nigeria, there is an absence of national or local champions leading the crusade to make HQCF a major player in the agenda
- Unlike West Africa, the use of graters and presses in cassava processing is not widespread and where these machines are available, they are not made from stainless steel which is required for food grade products.
- Particularly in Tanzania, the entrepreneurial spirit appears very low in the cassava sector and risk aversion appear rampant all through the chain from smallholder farmers to the potential end-users of HQCF.

In these varying circumstances, there is no 'quick fix' or formula for intervening in the HQCF value chain. Extension services need to fully understand the circumstances under which their smallholder groups operate and work within their peculiar limitation to recommend appropriate technologies for ensuring the sustainable inclusion of their smallholder groups in the value chain. It is also important for the extension services to prepare their smallholder group for taking on the next technological challenges within their peculiar circumstances.

Anticipating negative effects of the market environment on smallholders: The market environment is in a continuous state of flux. Larger actors often have larger capacities to absorb the shocks and variations in the market environment. Smallholders on the other hand, most of the time either do not have the resources or do not possess the required skills to cope with major movements in the large market. For instance, recent dynamics of the global economy is a factor influencing the cassava postharvest system. The impact of the global market for grains, fluctuating commodity prices including petroleum products are now showing its effects in the demand and supply of cassava. But extension services can and should help in this non-traditional aspect of their work. This may mean that extension officers themselves need to be provided additional training to understand the nature of the large market and prepare their smallholder groups to cope with its negative effects and take advantage of its positive ones.

Ensuring that strategies for ensuring benefits for women and other disadvantaged groups are incorporated into extension service operations: The cassava postharvest system has assigned gender roles. Several studies have shown that cassava processing is traditionally women's business in many smallholder situations (Afolami and Ajani, 1995); but more recent studies have shown that as cassava processing becomes more commercialised, men begin to own and run cassava processing enterprises (Adebayo et al., 2003). Extension services need to bear in mind at all times this power equation and how their intervention may shift its balance for or against one group or the other within their smallholder groups or communities. This way, extension services would prevent or at least prepare remedial actions for interventions in the HQCF value chain that may injure women or other groups who may be disadvantaged by it.

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Conclusions. It is evident that one strategy does not work in all countries. The development interventions in HQCF value chain need to provide a clear understanding of its social and development implications and trade-offs before initiating contacts with smallholders whose position in the system would make a negative outcome more devastating. Even so, it is important to note that there is no 'one size fits all' approach for addressing value chain development for HQCF. The social and cultural diversity that exists within each cassava growing country and communities are wide such that interventions that work in one cassava producing community may not work as well in a neighbouring one.

At this stage of its development in Africa, smallholders are an integral part of attempts to develop the value chain for HQCF. Unlike large scale commercial operators their business skills and ability to engage in any power tussle with larger actors in the value chain are low. This is a major challenge for extension service to act both as an unbiased facilitator and a trusty friend of smallholders in this attempt to ensure that they benefit from an emerging value chain with implications for their traditional practices and knowledge systems.

Finally, while positive government support for cassava development is helpful, the real challenge is in the need for extension services to help its smallholder groups to target markets according to their realisable capacities in the value chain. Sustainable options for the inclusion of smallholders in the emerging HQCF value chain in Africa require a sensitive extension service that is willing to learn along with other actors in the value chain and at the same time share its knowledge of smallholder systems in an open and transparent way such that it gains confidence both from its smallholder groups and other actors in the value chain. The extension service must accept that situations continue to change with time, actors and locations and must be willing and able to adapt as the situation requires in the interest of its smallholder groups. Consistent common sense and reasonable consideration of circumstances at any particular period in time often offer the best way forward.

References:

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The Cassava: Adding Value for Africa (C:AVA) Project develops value chains for High Quality Cassava flour (HQCF) in Ghana, Tanzania, Uganda, Nigeria and Malawi to improve the livelihoods and incomes of smallholder households as direct beneficiaries. It promotes the use of HQCF as a versatile raw material for which diverse markets exist. C:AVA is supported by a grant from the Bill and Melinda Gates Foundation to the Natural Resources Institute, University of Greenwich. For further information contact: k.adebayo@greenwich.ac.uk