The “Capitalization of Experiences for Greater Impact in Rural Development” project is implemented by CTA in different parts of the world, in collaboration with the Food and Agriculture Organization of the United Nations (FAO) and the Inter-American Institute for Cooperation on Agriculture (IICA), and with financial support from IFAD, the International Fund for Agricultural Development. This project aims to facilitate the adoption of an experience capitalization process in rural development initiatives, where it can help improve the analysis, documentation, sharing, and the adoption and use of lessons and good practices – as an approach for continuous learning, improvement and scaling up.

The cases featured in this booklet were selected and written by those participating in the project. Responsibility for the information and views set out in each case lies entirely with the authors. Reproduction is authorised provided the source is acknowledged.

**About CTA**

The Technical Centre for Agricultural and Rural Cooperation (CTA) is a joint international institution of the African, Caribbean and Pacific (ACP) Group of States and the European Union (EU). CTA operates under the framework of the Cotonou Agreement and is funded by the EU. For more information on CTA, visit [www.cta.int](http://www.cta.int).

**About IFAD**

The International Fund for Agricultural Development (IFAD) invests in rural people, empowering them to increase their food security, improve the nutrition of their families and increase their incomes. IFAD is an international financial institution and specialized United Nations agency based in Rome, the UN’s food and agriculture hub. Since 1978, it has provided US$18.5 billion in grants and low-interest loans to projects that have reached about 464 million people. For more information on IFAD, visit [www.ifad.org](http://www.ifad.org).

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CTA, 2018. Public, private, producer partnerships in East Africa. Experience Capitalization Series 2. Wageningen, the Netherlands, CTA.

ISBN 978-92-9081-627-0
CTA has been implementing the “Capitalization of Experiences for Greater Impact in Rural Development” project since March 2016, working with the financial support from the International Fund for Agricultural Development (IFAD). The project’s purpose is to support the adoption of experience capitalization processes as part of rural development initiatives, whereby it can improve the analysis, documentation and sharing of insights, lessons learnt and good practices, and ultimately their adoption and use.

A few months after the project had started, we heard of the interest of different projects running in East Africa, all of which wanted to look in detail at what they had done and achieved. These projects were all following the 4P approach: the establishment of strong partnerships between producers, the public and the private sector, as the best way to support different value chains - and they all wanted to document and share the lessons learnt. With the steady support of Louise McDonald, of IFAD’s East and Southern Africa Division, they joined our project, and followed the process which led to the stories that we present here.

The insights and lessons drawn from each of the cases emerge as common features, reflecting promising practices that lead to positive results. These are already being adapted and adopted, and many more farmers in the region are benefitting.

My hope is that the readers will appreciate the value of experience capitalization as an approach to capturing, analysing and sharing insights, and that you all will consider it as one of the best bets to promote a continuous learning process, improvement and scaling up.

---

Krishan Bheenick  
Senior Programme Coordinator,  
Knowledge Management  
CTA
## CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Foreword</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>NETWORKING INITIATIVES</td>
<td></td>
</tr>
</tbody>
</table>
  Collective marketing: making maize a profitable product in Tanzania  
  Wilson Karumuna  
  Increasing awareness of post-harvest best practices for maize and bean farmers  
  Christine Ingabire  
  Rural investment ideas become fundable plans  
  Gilbert Tarimo |
| 13   | VERTICAL INTEGRATION: PROCESSING |  
  Increasing incomes and reducing post-harvest losses in Mbulu  
  Bertha Mjawa  
  Market access: ensuring product quality and customer confidence  
  Suleiman Atik Saleiman  
  The agro-enterprise approach increases incomes for Tanzanian smallholder farmers  
  Savior Mbele |
| 42   | VERTICAL INTEGRATION: STORAGE |  
  Agricultural value chain finance for smallholder farmers  
  Alice Kwizera  
  Finding success with soybeans  
  Anthony Wanyoto  
  Improving sunflower production and reducing post-harvest losses  
  Félix Mlay  
  Minimising potato seed losses and improving production  
  Theresa Imanishimwe |
| 64   | INNOVATION PLATFORMS |  
  Innovation platforms for solving marketing inefficiencies  
  Frederick Ogenga  
  SAGCOT – Africa’s Success Story  
  Neema Lugangira |
One of the concepts most commonly discussed in value-chain development projects is that of the 4Ps: the Public, Private, Producer Partnerships. This refers to the strong cooperation arrangements between a government, business agents and small-scale producers, who agree to work together to reach a common goal or carry out a specific task while jointly assuming risks and responsibilities, and sharing benefits, resources and competencies. A 4P arrangement ideally serves multiple development objectives. For example, it can be a mechanism to include a specific target group in value chains led by private companies. Private investment can also facilitate access to markets, technical assistance, knowledge, technology and capital. Finally, intensification of production and development of value chains can generate significant employment opportunities.

In most cases, such an arrangement shows a few key characteristics: private-sector involvement is planned early on so that it becomes part of the project design and implementation, and partnership results are systematically monitored and evaluated as part of the project’s results framework. To the extent possible and relevant, the private-sector partner is selected through a competitive or rigorous selection process that ensures transparency and objectivity, and meets the project’s social, economic and environmental objectives.

On the other hand, producers play an active role in the negotiations and partnership arrangements (both formal and informal), governance and monitoring. A 4P setup is a true partnership in which each partner has clear roles and responsibilities, and shares risks and benefits. Private-sector partners are expected to allocate matching financial resources. Linking with the private sector through a 4P ensures that interventions are sustained beyond the project lifetime because they follow business logic and all involved parties benefit. A 4P should be seen as an entry point to scaling up project results through private-sector investment.

**Learning from experience**

Supporting many different value-chain projects in East and Southern Africa, the International Fund for Agricultural Development (IFAD) wanted to start a process, which would help draw lessons from the different initiatives running in the region. With this in mind, up to 30 representatives of the IFAD-supported projects in Tanzania, Uganda and Rwanda joined the workshops organised by CTA and started an experience capitalization process. Their objective was to describe and analyse a few cases, and to draw lessons, which would help improve and upscale the results already seen in the field.

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The 4Ps refer to strong cooperation agreements between a government, business agents and small-scale producers.
The following pages show some of the results of this initiative. The 12 cases which were selected represent a large diversity (covering maize, rice, beans, sunflowers, potatoes, tomatoes, dairy, tea, cassava, bananas and garlic value chains) but they all show some of the key elements in a 4P arrangement. In the majority of the cases, it is the staff from the Ministry of Agriculture who facilitates the process, although in some cases this is taken up by better-equipped private sector consultants. Two projects applied a cluster approach and the establishment of innovation platforms, involving private sector agribusinesses from the start, while others describe a much broader spectrum, with a larger participation of the private sector later in the process. Other cases show a vertical integration of the value chain functions by farmer organisations themselves.

The majority of the cases included here, as those in other countries and regions show a more traditional intervention, focusing on the provision of inputs and on Good Agricultural Practices (GAP) services involving farmer organisations. It is only the more advanced cases, such as the soya, maize and potatoes projects in Uganda, Tanzania and Rwanda (respectively) that show stronger market linkages with private-sector agribusinesses. This is explained by the fact that these different projects have only been running for a short time, and that further developments are expected — especially in relation to the specific role of producers in the negotiations and in the establishment of partnership arrangements with agribusiness. But experience has also shown that strong linkages have the potential to be sustained beyond the lifetime of a project, and that many benefits are seen after a project has concluded. This is only the beginning!

Good reading.

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**Piet Visser**
Team Leader, Agribusiness & Value Chain
CTA
visser@cta.int
1 NETWORKING INITIATIVES
COLLECTIVE MARKETING: MAKING MAIZE A PROFITABLE PRODUCT IN TANZANIA

Wilson Karumuna
The Producer Empowerment and Market Linkages (PEML) project is improving the livelihoods of local maize producer groups in Tanzania by strengthening their organisational and operational capacities. The project is also facilitating farmer group access to market information systems and financial services, as well as promoting their participation in warehouse receipt systems.

**Maize value chain analysis**

The process of achieving PEML objectives required an assessment and understanding of the maize value chain. This involved organising introductory meetings between stakeholders and farmers and carrying out an analysis of the maize value chain in the district to provide important information to farmers, and mobilise them into collective action. Through these meetings, 29 farmer groups were inspired to join the capacity building project.

The main objective of PEML is to strengthen the capacity of maize producer groups to competitively access profitable markets. More specifically, the aim is to guide the logical execution of activities to strengthen the organisational and operational capacities of maize producer groups. This includes facilitating institutional strengthening and development of marketing skills as well as market-led linkages. In addition, the project is facilitating access to market information systems and to financial services, as well as promoting participation in warehouse receipt systems.
The farmers’ training needs which were identified included marketing skills, financial literacy, the formation, consolidation and registration of groups, as well as business plan development.

Project strategy: stages and approach

Earlier attempts to deal with the problems facing maize farmers in Missenyi by the government’s District Agriculture Sector Investment Project (DASIP) had focused on improving maize production. Farmers got bumper crops but had no skills to sell profitably. Unlike the PEML project, DASIP did not address the marketing challenges faced by farmers, although the project did construct three storage facilities in areas where PEML is operating.

Leading farmers to train others was an innovative approach: GeoData Consultants identified 10 farmer trainers who were also members of the local farmer groups, and guided them in helping their colleagues to understand the economic advantages of a collective marketing approach and the skills required.

One advantage of the farmer-to-farmer training approach is that trainers are aware of the local conditions. Farmers also recognise their trainers as

Baseline information used to guide the PEML project

- Identification of key actors along the chain i.e. farmers and buyers who collect small amounts from individual farmers and sell to wholesalers.
- Maize marketing is done informally and standard measurement units are not used, making it difficult to establish the volume of sales.
- Most buyers come from Uganda and Bukoba who sell the product or process it into maize flour before selling.
- None of the farmer groups were engaged in collective maize marketing.
- Maize marketing is dominated by traders and farmers are price takers as opposed to price setters.
EXPERIENCE CAPITALIZATION: 4Ps in East Africa

colleagues and are more prepared to trust the skills and information provided. It is also a cost effective approach.

The team of 10 farmers trained 618 other farmers in collective marketing skills, and taught them about entrepreneurial practices including joint savings and credit schemes and how to prepare and use business plans effectively. They also practised calculating the cost of maize and bean production, which helped the groups realise the importance of collective selling where they could set the price and ensure a profit.

Initially, attendance was low but gradually, it rose from 30 to 65% as group members became more involved in the efforts to increase the ability of farmers to use the collective marketing approach.

Another challenge was to increase production. Initially production was on average between 200 and 300 kgs per acre. Improvements in production have resulted in rates that vary between 500 and 700 kg per acre. This level of production is still low, with the potential for 1,500 kg per acre. Post-harvest losses are also a challenge. During and after harvesting, losses of 25% were recorded and quality also declined.

During training, farmers identified the need for centres where maize intended for collective marketing could be stored. Establishing and strengthening links with credit and saving institutions was important and the most relevant microfinance institutions were identified. Kyaka SACCOS, a savings and credit cooperative, was selected. Sixteen groups committed themselves to paying the entrance fee to become members of the organisation and contributed TZS 3.5 m (£1,330). Two groups went a step further and applied for a loan of TZS 6.5 m (£2,470) to finance production and marketing.

The district maize market platform

The PEML project subsequently established a Maize District Market Forum. The forum consisted of 70 members and stakeholders, including local government representatives, ward and village leaders, government extension officers, maize buyers, researchers, service providers and group representatives as well as NGO and media staff. The district has also extended its support to help the farmers access markets.

As a result of the first forum, a number of buyers agreed to work with the collective marketing groups. GeoData Consultants supported group members in interacting with buyers in bargaining, bringing maize to an agreed collection point, and provided advice on quality, quantity, measurement, price and when and how payments should be made. Two buyers, Hilary Mohamed and Wilbroad Sprian, bought a total of 322,150 kg of maize and the 18 groups involved in collective selling during the first season of the project made a profit of TZS 34,208,850 (£13,000).

As project activities developed, expenses were incurred by stakeholders involved who were taking time out of their work schedules to be involved. With this in mind, the training sessions were then organised to fit in with the work schedules of farmers and other stakeholders.

Two farming and marketing seasons have passed since the PEML project began. In the first season, 18 groups were supported by the service provider to sell 322,150 kg of maize worth TZS 136.97 million (£51,850). In the second season, 15 groups sold 188,000 kg worth TZS 79.34 million (£30,030). Projections indicate that for the third season, 29 groups will produce and sell 582,430 kg of maize worth TZS 320.30 million (~£120,000). These volumes of maize and money are the result of collective activities and the number of prospective buyers increasing.

Sustainability

INUKA, a farmer group whose members come from different MIVARF groups, has been established to buy maize from the collective groups at a slightly higher price than the one offered by current buyers. If INUKA can secure a start-up fund, it aims to process maize into maize flour and animal feeds, and package and sell it wholesale to consumers. In this way, INUKA will help farmers get good prices and attract more farmers into maize production.

“This project is unique”

“We have had a number of projects but this one is unique. We used to have projects that dealt with farming techniques, but this one leads us all the way from farming to the final stage of selling. There is also close follow up right to our groups in the village. We are now realising the true value of our sweat. Before the project we were selling a sack of maize (120 kg) for between TZS 18,000 and TZS 30,000, but now we are selling at TZS 45,000. We realise the value of collective selling and villagers who are not in groups envy us. We are sure in 3 years’ time we will have come very far in improving our income.”

(Mr. Justine Kabyemela of Kilimilile village).
INUKA will stimulate business and improve group members’ incomes and this will bring mutual benefits to both producer group members and processing groups. If the group takes off effectively it will help force the two current buyers to pay higher prices.

The farmers trained by GeoData to train their fellow farmers have also been active in developing the capacity of groups to manage savings and credit facilities. As a result, 15 groups have earned TZS 92,195,400 (~€112,000), which includes money derived from savings, interest on loans, social funds and other incomes such as fines. A total of TZS 39,726,400 (~€48,250) has been saved and TZS 55,469,000 (~€67,380) is being shared among group members.

Following the Village Savings and Loan Associations (VSLA) model, a group shares a previously agreed upon amount of money, every year. The money from savings and credit activities is used to finance maize production and marketing processes through the group’s internal lending scheme. This financial service has given the MIVARF groups confidence in the sustainability of the collective selling approach.

**Conclusion**

Working with those farmers who have been slow to adopt collective marketing strategies, the PEML project has demonstrated how important it is to harmonise efforts and engage in maize production as a business. A total of 618 farmers – 336 men and 282 women – are now involved in collective selling.

PEML is currently focusing on how ward and village leaders, as well as government and extension workers, can contribute to solving any problems that might arise and negatively affect the sustainability of this initiative. Further, it is important that the project be scaled up to the whole district and if possible, to the entire Kagera region, as supporting farmer groups marketing skills through collective selling is the only way of making farmers develop and improve their incomes. A total of 618 farmers – 336 men and 282 women – are now involved in collective selling.

The project has proven beneficial and after 2 years of implementation, the farmers, through organised groups, have realised a profit of TZS 34,208,850 (~€41,500) for 322,150 kg of maize in the first season, and TZS 37,788,000 (~€45,880) for 188,000 kg in the second season. If there had not been a MIVARF project, according to the data in the initial baseline survey, losses would probably have amounted to TZS 61,218,000 (~€74,300).

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**Wilson Karumuna** is Director for Entrepreneurship Development, GeoData Consultants Limited.  
*E-mail: wilsomuna@yahoo.com*
INCREASING AWARENESS OF POST-HARVEST BEST PRACTICES FOR MAIZE AND BEAN FARMERS

Christine Ingabire
In Rwanda, the professionalisation of the maize and bean value chains is being given priority by the government. Maize and beans are important income earners for farmers. In order for them to meet the quantity and quality demands of buyers, a project has been designed to increase farmers’ awareness of post-harvest best practices.

Rwanda is striving to realise the goals of the Vision 2020 development programme launched by the government in 2000. This includes developing a productive and market-oriented agriculture sector and calls for a private sector led economy, which means dealing with the risks associated with current post-harvest practices. The country’s key staple crops – maize and beans – are particularly important to both farmers and domestic consumers. They ensure food security either through direct consumption or by providing income when sold.

To maintain crop productivity and resilience, given Rwanda’s reliance on rain-fed agriculture and its vulnerability to climate change, Rwanda’s Crop Intensification Programme (CIP) decided to tackle the problem of post-harvest losses. Between 2007 and 2011, under this programme, maize production tripled and bean production doubled. However, despite the progress made under CIP, further actions were required along the value chain to ensure that productivity and food security gains were maximised, and that supply-side developments met market demand.

The multiple cropping systems promoted under CIP involve harvesting during the wetter times of the year. This means that farmers can no longer rely on the sun to dry cereals. In addition, increased humidity encourages the accumulation...
of microorganisms and insects, leading to high rates of deterioration when crops are stored. Fluctuations in temperature also complicate the safe storage and transport along supply chains. To combat these climate-induced stresses, agricultural investment programmes must incorporate improved post-harvest processing and storage techniques.

Tackling a difficult situation

In Rwanda, there is a lack of post-harvest technologies to dry, thresh, shell, sort, grade and winnow maize and beans. Other problems include the lack of appropriate post-harvest infrastructure for adequate storage, processing and transport, as well as problems associated with trading and access to finance. If smallholder farmers are to become competitive in the maize and bean markets in the medium and long term, they must acquire the knowledge, skills and tools to help them meet the challenges that affect the quantity and quality of food produced, and thus, their income.

To reduce post-harvest losses and improve farmer access to profitable local and regional markets, it is imperative that cooperatives benefit from capacity building programmes in cooperative governance and management and in post-harvest management, and that farmers are helped to access finance in order to establish infrastructures that improve post-harvest activities.

The Postharvest and Agribusiness Support Project (PASP) engaged Wakala East Africa Consulting Services Ltd. (Wakala EACS Ltd.) as a service provider to help reduce maize and bean losses, identify why losses occur and provide loss estimates at each stage of the post-harvest activity chain. Eleven districts were involved in the project: Gatsibo, Kamonyi, Kayonza, Kirche, Muhanga, Musanze, Ngoma, Nyabihu, Nyagatare, Ruhiwa, and Ruhango.

Activities undertaken

A training programme on the principles of harvesting and on the best post-harvest practices included:

- Maize and bean post-harvest operations such as harvesting, handling, transport, storage and collection point management.
- Maize and bean value addition, and quality control and assurance at storage, processing and marketing levels.

The training methodology used was structured to include both theoretical and practical elements. A pre-training test was carried out before each training session in order to assess how much the trainees understood about post-harvest handling and storage (PHHS) practices. Simple questions had been prepared beforehand and these were used in group discussions, where each discussion group consisted of five participants. During the meetings, the trainers used a participatory learning approach that included group discussions and demonstrations using visual aids. The participatory training approach enabled trainees and participants to share experiences.

The materials and tools used during the training sessions included manuals in the Kinyarwanda language covering key aspects of effective maize and bean PHHS. Visual aids and flip charts were also used. Participants were provided with pens, note books and shelling machines. But farmer cooperatives also benefited from a coaching programme to improve their maize and bean post-harvest handling activities. This included:

- Training in shelling, winnowing, cleaning, drying and storing maize and beans;
- Sensitisation to the importance of respecting maize quality during shelling and drying, and to quality standards to achieve Grade One quality produce as required by buyers;
- Visits to storage facilities with further lessons on improving quality standards.

Many positive results

About 5,000 farmers were trained on post-harvest operations including harvesting, field handling, sorting, packaging, transportation, storage, value addition and quality control. Maize cooperatives testified that post-harvest losses were reduced by 90%.

The Table below illustrates the challenges faced by the project, the main causes of these challenges and possible solutions.
<table>
<thead>
<tr>
<th>Identified problems</th>
<th>Main causes</th>
<th>Possible solutions</th>
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</table>
| Post-harvest losses and poor quality of maize and beans  | 1. Eastern province  
   • Lack or insufficient post-harvest handling (PHH) infrastructures such as drying and storage facilities. Results show that 81% of cooperatives reported a lack of or insufficient drying facilities, while 74% reported difficulties in accessing storage facilities. As a result, farmers dry and store their produce at home or hire stores, which are substandard.  
   • Available PHH infrastructures are located far from farmers so it becomes difficult to use them.  
   • Cooperatives do not have their own transport. Only one cooperative among the sampled cooperatives owned a vehicle. The vehicle was bought by the cooperative with donor assistance of FRw23 million (€26,585) and FRw25 million (€30,210) from its own resources.  
   • Lack of proper PHH equipment such as mechanical threshing machines, moisture metres and drying facilities. Farmers reported using poor facilities like woven mats, basins, saucepans and baskets, torn sheeting, banana leaves, and bags.  
   • Lack of skills/technology in PHHS. Even though 81% of cooperatives reported to have been trained in PHHS, the dissemination of skills to individual farmers by the trained lead farmers was not successful. 19% of the interviewed cooperatives have not received any PHHS training.  
   • 100% of interviewed cooperatives reported lack of working capital to cover post-harvest costs and crop collection from farmers. | MINAGRI-PASP can:  
   • support farmers’ cooperatives by establishing drying and storage facilities closer to major production areas.  
   • mobilise more farmers to join cooperatives through WEACS as a service provider and create a critical mass and economies of scale for dried and stored maize and beans.  
   • support cooperatives through WEACS and other private service providers in training cooperatives to develop bankable projects, in order to access the required finance needed for PHHS infrastructure and equipment.  
   • mobilise cooperatives’ internal resources so they can buy equipment that is within their financial means.  
   • organise training for all cooperative members in all aspects of PHHS. |
<table>
<thead>
<tr>
<th>Identified problems</th>
<th>Main causes</th>
<th>Possible solutions</th>
</tr>
</thead>
</table>
| Post-harvest losses and poor quality of maize and beans continued | 2. Northern province (Musanze District)  
- Lack or insufficient PHH infrastructures like drying and storage facilities. This problem was reported by 75% of farmers interviewed. Cooperatives that do have access to storage facilities reported that they do not meet the required standards.  
- Lack of PHH equipment such as threshing machines. In this province they only use small hand threshing machines and they don’t have moisture metres to test the quality of stored maize and beans.  
- Most members (75%) of the cooperatives in the northern province have never been trained in PHHS. They also reported high infestation of pests (weevils) especially in hybrid varieties of maize. | MINAGRI-PASP can:  
- in collaboration with MINICOM, Access Finance Rwanda (AFR), WEACS and other private service providers, link cooperatives to financial institutions, assist cooperatives in bankable project preparation and operationalise the warehouse receipt system (WRS).  
- through WEACS and in collaboration with MINICOM, target selected cooperatives in this project and support and train them in order to reach the maize and beans standards required for local, regional and international trade.  
- support cooperatives through training in the best PHHS practices from field to storage to overcome pest problems and crop losses.  
- in collaboration with MINICOM, Access Finance Rwanda (AFR), WEACS, ADC – a service provider that helps cooperatives develop business plans – link cooperatives to financial institutions, assist cooperatives on bankable projects preparation and operationalise the WRS.  
- through WEACS and in collaboration with MINICOM, target selected cooperatives in this project and support and train them to reach the required maize and beans standards for local, regional and international trade.  
- through WEACS, support cooperatives through training in the best PHHS practices from the field to storage to overcome pest problems and crop losses. |
| 3. Southern Province                                     | • Lack of transport and working capital. In the Southern province only one cooperative owned a vehicle. In addition high transportation costs were reported and this caused farmers to sell their maize and bean to middlemen who come their homesteads to buy at a giveaway price.                                                                                      |                                                                                                                                                                                                                                                                                                                                                     |
| 4. Western province                                      | • Pest problems (weevils) were reported by 100% of the cooperatives visited. The weevils attack grains being carried from the field to storage. For example, some cooperatives experienced losses of 80%. In the western province, problems such as a lack or insufficient PHH infrastructure, equipment (threshing and moisture meters), and poor transportation system were also reported. Lack of skills/technology in PHHS. |                                                                                                                                                                                                                                                                                                                                                     |
### Identified problems

<table>
<thead>
<tr>
<th>Legal registration</th>
<th>Main causes</th>
<th>Possible solutions</th>
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<tbody>
<tr>
<td>• Some cooperatives are newly created and others are only registered at district and sector levels.</td>
<td>MINAGRI-PASP can: • facilitate the process of legal registration.</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Lack of or limited value addition</th>
<th>Main causes</th>
<th>Possible solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Poor quality of maize and beans. Difficult for farmers to meet the required quality standards of maize and beans due to poor PHHS practices and a lack of PHHS infrastructure and equipment. Also lack of knowledge on the required standards from Rwanda Bureau of Standards and Technology that could enable them to add value to maize and beans.</td>
<td>• Through the extension services of WEACS and the Rwanda Agricultural Board (RAB), train farmers in technologies that add value to maize and bean products, for example, the production of high quality maize flour, composite flour maize and cassava for stiff porridge or maize, and orange fleshed sweet potatoes for nutritious porridge for children at home and in schools, the elderly and pregnant mothers. • through WEACS and other private service providers train farmers and selected cooperatives on the use of iron-rich bean varieties as a source of protein and iron. • through WEACS, train cooperatives on proper cleaning, sorting and grading of maize and beans.</td>
<td></td>
</tr>
</tbody>
</table>

As the table shows, there are still many challenges to solve, although all the objectives dealt with by WEACS Ltd. were achieved although there were challenges as the above table shows. The training sessions in post-harvest handling operations were successfully carried out. After the training, WEACS Ltd. conducted coaching to ensure the theoretical training provided to farmers was properly implemented by the cooperatives. WEACS Ltd. also provided technical support to farmers while undertaking post-harvest handling operations. Another important activity performed during the market linkage exercise was facilitating the development and signing of contracts between maize and bean cooperatives and buyers. WEACS Ltd facilitated the signing of 25 new contracts between maize cooperatives and potential buyers of maize and this led to better prices.

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Christine Ingabire serves as Operations Manager, Wakala East Africa Consulting Services Ltd.  
E-mail: ingabirechrix2@yahoo.fr

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This is one of the results of the process started by the “Capitalization of Experiences for Greater Impact in Rural Development” project, implemented by CTA, FAO and IICA and supported by IFAD.  
http://experience-capitalization.cta.int

Country: Rwanda  
Region: East Africa  
Date: June 2017  
Keywords: Value chains; cooperatives; maize; beans; post harvest; 4Ps; capacity building
RURAL INVESTMENT IDEAS BECOME FUNDABLE PLANS

Gilbert Tarimo
An investment project analysis toolkit, Rural Invest, has been developed by FAO to provide ministry field staff, service providers, NGOs and members of the private sector, with the necessary support when preparing rural development projects in Tanzania. The tool can be used to draw out project information on agricultural initiatives, and is aiding the efficient development of detailed business plans.

Rural Invest is a methodology that facilitates the identification, preparation, ex-ante analysis, monitoring and evaluation of the impact of small to medium-scale investment projects, whether revenue-generating or not, and the development of businesses in rural areas.

The tool was born out of the frustration that many institutions had with the quality of investment proposals that originated in many developing countries, as there was no clear format and most of them were of poor quality. Rural Invest addresses the need of placing greater emphasis on providing resources to communities so they can make their own investments. To this end, communities are likely to be more involved in and committed to the investments than if they were receiving handouts.

Rural Invest started as a simple spreadsheet used by people making proposals for investments at community levels to include the key information needed by funding organisations. However, it rapidly became clear that more and more information could be included in this formatted way and so, over the last 16 years, Rural Invest has grown from a simple set of spreadsheets, to a variety of software forms that can be used to draw out project information on agricultural initiatives.

Rural Invest is now run as an open access software so that anyone can use it, and it enables the documentation of information about the groups themselves, the applicants, the type of the activities they want to do, costs and income, whether or not it is an income-generating project and how the project will be managed. The software is available in seven languages including Arabic, English, French, Portuguese, Russian and Spanish, and is being introduced in Turkish and Swahili.

The beneficiaries of the software are the members of rural communities who are eligible for small investment funding. This can be for what is called
income-generating projects like shops and agricultural investments. It can also be used, for example, for non-income generating investments such as health clinics, village schools, day care facilities and for the development of access roads. The main users of Rural Invest tend to be the field staff of ministries of agriculture and the environment. Users also include NGOs and are increasingly coming from private sector organisations such as banks that have extensive operations in rural areas.

What makes Rural Invest different from other planning approaches is that it provides a tool that can be used by those who may have a background in livestock, sociology or forestry but not necessarily in finance and economics. Rural Invest is a way of identifying potential and useful investments, which then have to be tied into the way the agency operates in accessing these investments and in disbursing and controlling funds.

Background

Increasing rates of economic growth and development in many sub-Saharan African countries has resulted in new investments being planned and undertaken in rural areas. However, those responsible for defining and funding these new investments – whether they are from the ministries of agriculture or the local staff of internationally-financed development projects/private sector personnel such as bank credit officers – often have little prior experience in developing appropriate investment project proposals.

This is especially true of investment project proposals derived from groups or communities that have little or no familiarity with the concept of investment projects, and therefore, require assistance in prioritising their needs and in conceptualising and developing specific proposals.

Tanzania, through its development agents, realised the need for a training toolkit tailored to meet the needs of extension agents and development practitioners. A toolkit would help enhance farmers’ capacities to formulate and manage sustainable rural investments. Therefore, the training of trainers (TOT) was introduced and 21 participants from multiple disciplines in different parts of the country came together in Tanga, Tanzania in November 2015. The TOT also brought together stakeholders from various public-private-producer partnerships. The aim was to enable organisations to work together and spread knowledge to development agents, individual farmers and community groups, and help them manage their ideas and priorities into fundable investments plans.

This was one of the steps in a long process. The investment centre division of the Food and Agriculture Organization of the United Nations, FAO, has been developing the toolkit and adopting it in a number of different countries for more than 15 years, with the objective of enabling field practitioners to support farmers in preparing and evaluating rural investments in agriculture and fisheries, as well as in terms of social and economic relevance. The ideal size of investments varies from €1,700 to €210,000.

The Rural Invest TOT in Zanzibar focused specifically on engaging and sharing knowledge with technicians of Zanzibar’s Ministry of Agriculture, Natural Resources, Livestock, and Fisheries on the following:

- Conducting participatory work with community groups to identify their priorities and develop these into bankable ideas;
- Providing intermediary advice to rural community groups about financial institutions;
- Providing resources to communities to help them make their own investments;
- Enabling community groups to access funds more conveniently so they can work on their ideas;
- Improving the definition and quality of investment proposals;
- Increasing access to local investment funds;
- Identifying and reflecting on the priorities of the applicants;
Ensuring sustainability within projects;

- Strengthening local capacity and increasing project ownership and commitment;

- Increasing capacity to assess investment proposals;

- Using information in ways that would help monitoring throughout the project cycle.

## The toolkit

Information about the Rural Invest toolkit is now available on the FAO investment centre division’s website [http://www.fao.org/investment/ruralinvest/en/](http://www.fao.org/investment/ruralinvest/en/). The training material is available for consultation, including a brochure that describes tools and training manuals. In order to facilitate a simplified financial analysis of the investment (sustainability, profitability and cash flow), the Rural Invest toolkit includes software created and tailored specifically for this purpose.

The Rural Invest software is used by technical staff working with applicant communities, groups and individuals to input information related to investments selected as priorities by farmers or other applicants. Through its reports, it helps assess the profitability of an investment and its sustainability, *vis-à-vis* the source of funds as well as its environmental impact and organisational structure. Access to and use of the software is limited to those who have undergone the training course in order to ensure its effective use.

The primary targets of the learning event are governments, parastatals (for example, chambers of commerce of agriculture/commerce and investment promotion agencies), and non-government field practitioners, including NGOs and private consulting firms working directly with farmers and rural entrepreneurs. Such a learning event targets field practitioners or project staff to ensure that they are able to support and collaborate effectively with applicants in formulating quality proposals, with a high probability of success. Participants must have experience in working with rural communities and be comfortable in using computers. Knowledge of project finance and economics is an advantage but not essential.

Based on discussions with potential participating institutions, the most suitable entities for Rural Invest adoption and those with the strongest demand may be: the IFAD Project Management Unit (IFAD PMU), the Department of Agricultural Extension (DAE) of the Ministry of Agriculture (MoA) and selected NGOs working on food security and rural development who are able to fund investments.

## The Zanzibar experience

A total of 22 participants from Unguja and Pemba were trained on 22 April 2016 and submitted their proposals by 30 June 2016. More than 16 of the applicants showed a broad understanding of the Rural Invest concept and toolkit, and developed projects based on their farmers’ ideas. These were reviewed to identify errors and areas for improvement.

The Zanzibar Government, in collaboration with stakeholders and development agents, has adopted Rural Invest as a methodology and tool and five proposals have been developed with community groups and ministry field staff who have received Rural Invest training. This has enabled them to create project proposals that have helped source funds as donations from the Zanzibar Government’s agriculture support services programme (ASSP/ASDP-L), funded by IFAD.

By 13 February 2016, 61 service providers from the Tanzanian Marketing Infrastructure Value Addition and Rural Finance (MIVARF) programme had been trained to enable them to work more effectively with community groups in facilitating the identification, preparation, ex-ante analysis, monitoring and evaluation of the impact of small- to medium-scale investment projects and the development of businesses in rural areas.

With the collaboration of MIVARF, Rural Invest supports technicians in developing agriculture proposals. Service providers have seen Rural Invest as being a useful and convenient way of developing detailed business plans in a much shorter time.
Ideally, a maximum of three organisations might be selected for training. All participating agencies would be invited to form a ‘Rural Invest support unit’ composed of two or more people. The number involved may vary depending on the needs and size of the organisation. Expression by the organisation receiving the training of their commitments and adoption processes of the tool, would ensure sustainable use of the toolkit.

**Course strategy and structure**

As a strategy, Rural Invest works best when its users are supported by an institution or a ‘parent’ project or programme that is collaborating with communities (and others) seeking investment funds. In order to be effective, the training course should be limited to a maximum of 20-25 participants. These participants should meet the following requirements:

- Possession of professional field experience in facilitating community-driven interventions in food security and nutrition;
- Some knowledge of project formulation and implementation;
- Computer literacy;
- Willingness and capacity to engage in a learning event that involves a training course and 3 months of part time project preparation;

It was also mentioned that participants to the Rural Invest trainings should take an e-learning course on Rural Invest prior to the commencement of the course, and that before the training they submit the e-learning course certificate to the Rural Invest training team. This can be accessed via [http://www.fao.org/investment/ruralinvest/e-learning-course/en/](http://www.fao.org/investment/ruralinvest/e-learning-course/en/)

The e-course consists of nine lessons each of which take about 40-45 minutes to complete. The course covers the key concepts of Rural Invest and what to expect during the training. It includes a final assessment test and after successfully completing the test, participants can print out a certificate of completion which can then be forwarded to support participation.

The training begins with a half-day sensitisation event to bring participants together and create awareness about what is involved in the training. The potential of Rural Invest is described, and emphasis is placed on the need for commitment by the selected organisations and their role in disseminating the potential uses of the package. And after the sensitisation event, the course follows a three-phase structure:

a. Two 3-day sessions in class: modules 1 & 2 on participatory methodology

b. A 4-day session in class: modules 2 & 3 on Rural Invest software

c. Two 3-day sessions in the field on communities and case studies

After the course, participants are expected to work on practical cases and put forward their own ideas using the Rural Invest software. Ideally, to demonstrate their understanding of the approach and how the software can be used, these should be real life cases. Backstopping will be provided by the Rural Invest team at FAO headquarters.

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**Gilbert Tarimo** works as Agriculture Development Intern at the Marketing Infrastructure Value Addition and Rural Finance (MIVARF) programme.

E-mail: tarimo.gilbert90@gmail.com
FRESH RICE

Net Weight: 5 Kgs
2

VERTICAL INTEGRATION: PROCESSING
INCREASING INCOMES AND REDUCING POST-HARVEST LOSSES IN MBULU

Bertha Mjawa
In the Bashay valley, Tanzania, farmers have received help to purchase processing equipment, and training on post-harvest management technologies and packaging materials, to reduce post-harvest losses and increase their income by processing their garlic crop. The creation of a consortium for the garlic value chain is also helping to strengthen and coordinate the sector.

The Marketing Infrastructure, Value Addition and Rural Finance (MIVARF) programme has been working for 7 years in 29 regions and 74 districts in Tanzania. One of the districts, Mbulu, contains the most productive garlic producing region in Eastern Africa; the Bashay valley. In 2013, MIVARF began working in Mbulu to implement one of its key objectives: adding value to crops to reduce post-harvest losses and improve incomes. This project was scheduled to run until March 2018.

The Bashay valley is well known for its garlic production, but encounters high post-harvest losses of between 30% and 50%. These losses would be reduced if farmers were able to process their garlic into a powder, oil or paste; the value-added products would also result in greater profits for farmers. Processed garlic products are currently imported from Asia, so MIVARF has been testing the potential of processing locally-cultivated garlic – with great success.

**Objectives and approach**

In the Bashay valley, MIVARF’s objective is to improve garlic productivity by 2018 by promoting the uptake of post-harvest technology, and marketing of products. The MIVARF approach to post-harvest management is based on participatory learning.

Technological interventions that lead to pre- and post-harvest improvements, such as good agricultural practices and good manufacturing practices, are guided by specialists and experienced producers through Farmer Field Schools that encourage learning by doing. In addition, efforts are made to introduce farmers to national standard marketing procedures as laid down by law. These include the
use of formal weights and measuring procedures when farmers are processing the oil, paste and powders, and the use of packaging materials that not only preserve the product but guarantee food safety.

Producer groups involved in other MIVARF projects, as well as garlic farmers from outside the area, have contributed to the Bashay initiative. In addition, the local authorities, the national research institutes, regulatory authorities, policy-makers and the packaging industry provide information about market prices and the regulatory standards required for garlic products. Traders and the media have played a significant role in disseminating information about the project.

On the basis of their experience, these stakeholders support coaching and training on post-harvest management technologies. They have also helped to provide the equipment needed to process garlic once it has been harvested.

Project development

Following a detailed needs assessment, a small group of 15 garlic cultivators – two men and 13 women – were selected by the local government to take part in a pilot project. Costs associated with capacity development were carefully budgeted. They included the organisation of coaching/training sessions for potential trainers and beneficiaries, as well as learning visits. Initial activities were designed to help producers understand the principles of processing garlic and how this could increase the value of their crop. A cost benefit analysis was also done to assess the economic suitability of the venture.

The training sessions were closely monitored and – where necessary – additional training was given by experts expressly hired for the purpose. Although there were only a few experts in the region, those who were engaged arranged for the 15 farmers to attend learning visits to organisations and individuals already involved in the garlic value chain, including private garlic processors and regional traders. These specialists were also involved in linking garlic producers to micro-finance institutions.

The 15 farmers were coached on how to develop a constitution and register themselves as a processing group. They were also evaluated as for matching grant funding offered by MIVARF; an essential step in raising the money needed to acquire garlic processing equipment. Group members were slow to bring together 25% of the amount needed to secure the equipment because most group members had limited financial assets. MIVARF provided the remaining 75%.

A supplier was contracted to provide and install the equipment, and train those who would operate the garlic processing machines. This equipment was 85% more efficient than hand tools and very few people were needed to operate the machinery. At the same time, processing the garlic in this way ensured that it fully complied with international and national quality standards. Producers were also trained in how to maintain the equipment. While the machinery had many advantages, a serious disadvantage was it depended on electricity and was vulnerable to power cuts that often occur in the region.

Premises for the equipment also had to be arranged. As the group could not afford to build a suitable unit, it set about hiring one. The eventual location of this facility did have some disadvantages as it

One kilo of processed garlic (€6) is worth considerably more than fresh garlic (€1.5)
was about 30 km from where the garlic was being produced. Transport availability and costs were amongst the difficulties producers had to face.

Sensitisation and efforts to encourage behaviour change techniques were made and group members eventually saw the benefit of the equipment.

In order to strengthen feelings of collective involvement, MIVARF – together with other stakeholders – set up an ‘Allium Consortium’. Farmer groups, regulatory authorities, technology experts, traders, marketers and financial institutions are members of this consortium. As a body it meets four times a year to discuss issues regarding the garlic value chain.

There were very few cooperative initiatives in the region, but as the project progressed, the advantages of collective efforts were beginning to be understood by farmers. For example, the project mobilised individual farmers to store their produce together in a warehouse constructed by MIVARF. Each producer has their own ‘cage’ in which to store their garlic, but a single store keeper is entrusted to keep records of the amount kept. When a buyer comes, the owner is called to participate in selling, which was increased due to this bulk storage method.

Marketing collectively enables farmers to bypass the middlemen who were exploiting farmers by buying crops from individual farmers who were unable to negotiate good prices.

The MIVARF programme has placed particular emphasis on encouraging producers to keep a record of their post-harvest handling and marketing activities. To ensure knowledge developed through the project experience would be available for future use, experience capitalisation specialists were given access to the producers’ records to help revise existing guidelines and manuals on post-harvest management procedures in ways that suited the needs of those who would later become involved in value addition activities. Other initiatives also explored the creation of posters, leaflets, pagers, booklets, radio programmes and video clips, which were well received. These can all be used in workshops by trainers and the media to highlight how the MIVARF project has already contributed to sustainable improvements in the income and productivity of garlic producers in Bashay.

An initial evaluation of project progress indicated that although a growing number of beneficiaries had acquired post-harvest handling and management skills, more coaching on the techniques involved were needed. The evaluation also drew attention to a lack of by-laws and government policy that could stimulate garlic processing and guide agricultural industrialisation. Garlic processors now have regulatory certificates and product barcodes, which have increased their trade.

**The way forward**

Although only 4% of harvested garlic is currently being processed in Tanzania, the profits accruing to those who sell their garlic as paste, powder or as a cleaned and package product are substantial. One kilo of processed garlic (TZS 16,000 or €6) is worth considerably more than fresh garlic (TZS 4,000).

MIVARF supports the farmers to work as a group when large orders for garlic products are received. As the farmers do not work as a cooperative at all times, the smaller orders can be dealt with by individual producers. Even though the market for garlic products is currently fairly small and growing slowly,
customers who are using the processed garlic are enthusiastic about their versatility and ease of use.

The financial advantage of processing garlic has, however, led to difficulties within the group. Some members have been taking more advantage of the equipment than others, and this gives rise to bad feelings. In addition, the local authority has reacted to increases in producer income by imposing a higher level of taxation through levies. In a sense this contradicts the Tanzanian government’s efforts to reduce post-harvest losses and increase the amount of value-added agricultural products on the market.

Post-harvest management has led to an improvement in productivity and producer income in the Bashay valley. But MIVARF has identified the need for a strategic management system capable of dealing with the difficulties that hinder further development. These include the choice of variety, not selling collectively, the need for better planning and scheduling where processing activities are concerned, and ensuring a reliable supply of packaging material for all producers.

The identification of garlic varieties most suitable for the region is currently being addressed. Extension officers and researchers are particularly interested in the potential of varieties found in southern Tanzania. However, making a selected variety available to producers before the growing season starts is often a challenge because seed is not always available when required.

Efforts are also being made to encourage a collective and cooperative approach when it comes to buying inputs, selling products or acquiring funds. In addition, the project continues to help producers provide garlic powder, paste and peeled and packaged garlic that meets customers and food manufacturer’s requirements.

Delivering garlic products in appropriate packaging is not only necessary for customer convenience, but also for if producers are to meet food quality and safety standards. However, sometimes these packaging materials are unavailable and action has therefore been taken by advocacy groups – with the support of food regulatory authorities such as the Tanzania Food and Drugs Authority (TFDA) or the Tanzania Bureau of Standards (TBS) – to encourage the packaging industry, with success, to make affordable and appropriate packaging materials available for all categories of producers in time for the marketing season.

Bertha Mjawa is the Value Addition Specialist at the Marketing Infrastructure, Value Addition and Rural Finance (MIVARF) programme, Tanzania. 
E-mail: mjawabj@gmail.com

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http://experience-capitalization.cta.int

Country: Tanzania
Region: East Africa
Date: June 2017
Keywords: Value chains; cooperatives; garlic; post harvest; value addition; 4Ps
MARKET ACCESS: ENSURING PRODUCT QUALITY AND CUSTOMER CONFIDENCE

Suleiman Atik Suleiman
In Zanzibar, an Agriculture Sector Development Programme-Livestock (ASDP-L) is enhancing the access of rural agricultural households to improved agricultural production technologies, increasing household food security and incomes. Through business coaching and farmer field school training, fruit and vegetable growers are learning how to add value to and ensure good quality of their produce.

As part of any agribusiness, income, as well as profits and loss, needs to be closely monitored. This helps to indicate whether the market is good and whether new small-scale enterprises should be expanded, reduced or halted. But in most cases, farmers are not able to carry out cost-benefit analyses for the betterment of their enterprises.

Cash flow problems often destroy small-scale enterprises, so careful forecasting of start-up and running expenses is therefore essential. It is always better to start small with minimum investment and grow slowly with the market. And competition may be healthy, but too much competition can destroy the market unless creative marketing strategies are developed. Although some initiatives have been developed, many farmer groups or organizations lack strategies to collect the market information they need to enable them to assess market demand.

Successful agri-businesses require a well organised and dedicated team is essential, especially for product development. In many groups, the leaders become overworked because of a failure to identify the roles and responsibilities of other members in the production chain. Overlaps are also common while important issues remain unattended.

Working to tackle these issues, the Agriculture Sector Development Programme-Livestock, ASDP-L, has been implemented by the Ministry of Agriculture and Natural Resources, Livestock and Fisheries in Zanzibar since 2007, with funds from the International Fund for Agricultural Development (IFAD). The satisfactory performance during the first years led to the approval of additional financing in June 2015, together with a 2-year extension. The purpose of additional financing was so the programme could reach more farmers through farmer field schools and secure sustainable long-term benefits. This is in line with the findings of IFAD’s Country Programme Evaluation (CPE) in 2014, which recognised the success of ASDP-L and its innovations, including the potential for scaling up as well as the need for further support in market linkages, value addition and enterprise development.

**Goals and objectives**

The goal of the programme was to contribute to the sustainable reduction of rural poverty in the framework of Zanzibar’s Strategies for Growth and Reduction of Poverty (II) programme, by increasing the incomes of agricultural communities and improving food security.

The additional finance was to support Farmer Field School-based enterprises, including cooperatives, marketing associations and small and medium-scale agro-industries, to work towards value addition and...
EXPERIENCE CAPITALIZATION 4Ps in East Africa

assure the quality and marketability of the products developed. Some farmer field school-based enterprises have been categorised as ‘green light groups’ meaning they have met the criteria to receive a grant, among them are those growing and processing fruits and vegetables.

Project beneficiaries were trained on how to harvest and process fruits and vegetable commodities in ways that would increase their market value and attract customer attention. Beneficiaries were closely monitored as they set about implementing this advice and developing strategies to secure improvements in product quality and market access.

It is well-known that produce can easily be contaminated when environmental and processing conditions are poor. Micro-organism development has to be prevented so that commodities produced can be safely consumed. On Pemba, this proved difficult, not only because drying systems were poor, but because frequent rainfall contributed to high levels of moisture retention in the commodities being processed. These factors, in combination with poor standards of hygiene, contributed to the danger of micro-organism infestation.

Earlier attempts to train and improve the standards of those involved in this commodity market had proved ineffective. Those working on the current project decided to focus on training farmers how to prepare for harvesting and the best time to harvest. Beneficiaries would also be coached in post-harvest procedures and the grading and processing of raw materials. In addition, priority was given to ensuring that farmers used appropriate packaging materials when sending their products to market, and labelling the packages in ways that made their content easy to identify.

Advice was also given on marketing procedures, in particular, understanding customer requirements and ensuring that there was a frequent and sufficient supply of products that could be sold on the local market. The advantages of advertising to increase customer awareness about the quality of the products on offer were also explained.

The programme encouraged groups to organise study visits. Programme district officers arranged a number of trips to visit producer groups who were marketing what seemed to be a superior product. The programme also facilitated visits to the Tanzanian mainland so groups could also acquire more experience in value addition, and this proved to be effective. And it also contracted a business coach who has been working closely with groups of producers to assist them in developing quality products with prolonged shelf lives that are able to penetrate the market competitively. Groups producing fruits and vegetables have benefited from this support because they received training on how to develop various processed products and minimise postharvest loss.

The business coach developed a mini-survey to identify the status of each beneficiary group, including

111 groups

JUMWAMPE is an association that gathers together horticultural producers from all the districts of Pemba. Group members have been working together since 2010, and the association was registered in 2013. Currently, there are 111 groups of small-scale vegetable producers each with an average of 15 members. Meanwhile, about 80 members have been registered as individual farmers. JUWAMPE is an example of how the skills that have been acquired have helped members address marketing issues. Training was organised for their members on how to diversify their produce, and add value to a number of products to increase their income. During demonstration days, JUMWAMPE also invite institutions like the Food Security and Nutrition Department and the Milele Foundation. The purpose was awareness creation through networking with potential buyers, and building relationships with existing buyers and connecting their members to the loans and grants institutions.
its production capacity, level of knowledge, human resources and in particular, its technical personnel and technological components. The inception report showed that poor technology was one of the factors that undermined product quality control. Under such circumstances, the programme agreed with the business coach’s recommendation that groups should be granted tools and equipment from the ASDP-L project to enable them to diversify their raw materials into products that would eventually fetch good market prices, and increase profit.

**Project impact**

Not long after we started it became clear that the beneficiaries of the project were making efforts to improve the value of their commodities, in line with the advice they had been given. A further positive result was that product promotion was proving successful, and commodity variety and quality were becoming increasingly well-known.

However, several difficulties arose during the course of the project. The vegetable materials and plants grown on Pemba mature at different times. Despite training, some farmers still found it difficult to estimate precisely when their crops were sufficiently mature for harvesting.

The storage and packaging of commodities was also problematic, in particular, poor packaging, labelling and the lack of an identifiable brand were seen as hindrances to marketing efforts. This was especially the case when advertising and promotional activities were aimed at gaining access to a wider regional market.

It soon became clear to those involved in organising the project that efforts had to be made to deal with the way commodities were being damaged and contaminated by vermin, moulds and fungi before they reach the intended market. Producers were largely unaware of how customers reacted to food safety issues. In fact, the lack of critical control and hazard analysis procedures meant that potential consumers would find it difficult to assess whether products might be contaminated, or how long they could safely be used. These problems persisted for some time before the project became aware of them.

Despite these hindrances, the project has made significant progress. The adoption of productivity enhancing technologies and best practices, which at present stands at 70%, has contributed positively to a significant increase in the productivity of crops such as cassava—from 9.5 to 20 t per ha, and banana from 9 to 25 t per ha. This is due to the diversification of these crops through value addition. Many crops are now being made into different products rather than being sold as raw materials. However, disparities continue between individual farmers as far as productivity is concerned.

Interaction with business coaches has certainly equipped farmers with the skills needed to develop products and exercise quality assurance control. Nevertheless, further training should be provided to farmers regarding the price and quality of raw materials required for production, as well as packaging processes.

Producers have shown clear willingness to adopt product quality and marketing suggestions. This has improved their incomes, although prices continue to fluctuate. Product quality standards need to be verified by the relevant institution to significantly improve consumer confidence.

The increasing numbers of orders for the products reflects the steady growth of local demand. However, market promotion and quality improvement activities have had a limited effect in some regions, and this should be further explored.

**Conclusions**

Running a small-scale business is not only about buying, producing and selling; it also involves keeping clear records, verifying profits and loss, managing cash flow, and maintaining tools, equipment and buildings, reviewing the market regularly and

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Interaction with business coaches has equipped farmers with the skills needed to develop products and exercise quality assurance control.
expanding the business wisely. Although setting up a micro-enterprise may have its difficulties, making it a profitable venture is the biggest challenge. It is therefore necessary to closely monitor each investment and purchase costs to keep track of profit margins.

The approaches that have been used in this programme to improve farmers’ livelihoods have been successful in terms of the knowledge and skills acquired by the beneficiaries. Indeed, this is evidenced by the formation of so-called ‘spill over’ groups that have been created with the support of farmer facilitators who have provided services to others after receiving trained form the business coaches.

The extent of commitment by direct beneficiaries to actively facilitate others demonstrates both the rate of adoption and the degree of sustainability. It is a reflection of the impact felt by those who were direct beneficiaries, as well as the level of solidarity and mutual recognition that seems to be widely present at community level.

On the basis of the results seen, future initiatives should focus on

- the establishment of collective marketing initiatives for fresh produce – particularly vegetables – to reduce the challenge of a flooded market;
- the use of proper packaging materials and labelling for the products to ensure product wholesomeness and quality assurance;
- promoting the participation in regional and national farmers’ exhibitions to promote public awareness and market coverage;
- focusing on the quality and reliability of supply as a crucial element for ensuring steady sales and a good price. Raw material must be controlled on a continuous basis to reduce loss and damage to ensure good product quality;
- devising new marketing and sales strategies. Although competition may make market penetration more difficult, it also proves that there is an active market. A new micro-entrepreneur needs creativity and sales strategies to establish his or her product or service on the market; and
- maintaining equipment and keeping business premises clean and in good running condition will certainly contribute to reducing operating expenses.

It is also necessary to note that not everyone is a good manager and therefore management skills may need to be developed or acquired through training.

Suleiman Atik Suleiman
works as Food Security and Nutrition Officer at the Ministry of Agriculture, Natural resources, Livestock and Fisheries, Tanzania.
E-mail: aticsule@yahoo.com

This is one of the results of the process started by the "Capitalization of Experiences for Greater Impact in Rural Development" project, implemented by CTA, FAO and IICA and supported by IFAD.
http://experience-capitalization.cta.int
THE AGRO-ENTERPRISE APPROACH INCREASES INCOMES FOR TANZANIAN SMALLHOLDER FARMERS

Savior Mbele
To reduce poverty and increase food security for smallholder paddy farmers in Tanzania, the national government started the Marketing, Infrastructure, Value Addition and Rural Finance programme. The programme uses the Public, Private Producer Partnership approach to bring together different actors to reduce transaction costs along the value chain, and puts paddy farmers in direct contact with potential buyers.

**In the Southern Highlands of Tanzania, the livelihoods of many smallholder families depend heavily on the cultivation and marketing of paddy rice. In 2013, four wards in the Mbarali district of Mbeya – Chimala, Igurusi, Ihahi and Mapogoro – an area rich in paddy production – were integrated into the Marketing, Infrastructure, Value Addition and Rural Finance (MIVARF) programme. This programme is being implemented by the Government of Tanzania and is supported by the African Development Bank and the International Fund for Agricultural Development. Its major objective is to encourage the development of marketing skills among small-scale paddy producers to reduce poverty and increase incomes and food security. The programme’s implementation strategy was based on the 4Ps approach (or Public, Private Producer Partnerships) and a service provider from the private sector – Ruvuma Commercialization and Diversification of Agriculture (RUCODIA) – was contracted by the Mbarali District Council to facilitate interventions.**

MIVARF works with different actors along the value chain, including producers, processors, marketing associations, input agro-dealers, the local government and millers. As part of these efforts, many steps have been taken to provide capacity building through training, coaching and mentoring of farmers’ groups.

**Strategy: learning by doing**

There is a considerable demand for the high quality paddy rice produced in Mbarali – both in Tanzania and in neighbouring countries. Buyers operating as individuals or as corporations continue to stimulate this demand. However, in general, the price smallholders receive for their rice is determined by the middlemen who link supply with demand.
The first objective of the MIVARF programme was to increase the value of the rice being offered for sale. Smallholders used to sell paddy, but with the cooperation of a local miller, MIVARF began encouraging farmers to mill their paddy into pure grain so that they could attract a better price. At the same time, the decision was taken to set up a limited company. Its objective would be to look for potential buyers, identify their requirements and offer them quality certified and packaged rice.

This involved identifying those who would most benefit from such activities. Working with local ward leaders and interested parties, MIVARF initially identified 46 farmer groups as likely beneficiaries and subsequently, 36 of these groups became involved in project activities.

The next step was to establish such a company. Once established, the company would explain to farmers and the other partners involved how it would work to improve the financial position of its beneficiaries. Establishment took some time as all 36 farmer groups had to be consulted. Eventually in August 2015 it was decided to register the company as Usangu Marketing Company Limited (UMACO). In addition, the Usangu Rice brand had to be formalised, obtaining a taxpayers’ identification number (TIN), business licence and barcode.

By 2015, these formalities had been completed. A continual review of common understanding and consensus between individual groups played an important role. It was decided that the milled rice husks would be packaged in quantities appropriate for different categories of buyers. Each package would display the brand name USANGU RICE and its logo. The name Usangu was chosen because Mbarali’s Usangu valley produces up to 30% of Tanzania’s rice and potential buyers are well aware of the superior quality of rice produced in this area.

Among the difficulties MIVARF encountered during company development was the selection of 50 shareholders (required by law) from more than 150 individuals interested in becoming shareholders. Selected shareholders would have five shares worth TZS 10,000 (£3.86) per share, which meant they would have to pay in total £19.30. Initially, some shareholders were slow to meet these costs, causing funding problems for the company.

UMACO’s board was formed with nine members. MIVARF coached and advised them on the general principles of company management and marketing procedures. This was not always easy. Capacity building efforts had to take into account the different levels of education and experience of those involved.

MIVARF also supported UMACO staff in dealing with local authority laws and regulations, as well as with the marketing procedures. In doing so, it took into account the fact that many of those involved in the company had yet to develop the confidence to actively take part in company decision-making. The process of decision-making was also affected by the fact that company meetings were often poorly attended.

Consolidating market identity

a. Milling and quality procedures: UMACO applied for rice safety and quality certification from both the Tanzania Food and Drugs Authority and the Tanzania Bureau of Standards to comply with food quality and safety issues. MIVARF had facilitated the identification and engagement of a rice miller who would cooperate with nine millers working at the Igurusi Rice Market in Mbeya. At Igurusi, MIVARF also took steps to ensure that the premises being used by UMACO were kept clean and that millers followed quality management procedures. This included ensuring that Usangu Rice did not get mixed with other varieties during the grading process.

b. Packaging: Milled rice grain is packaged according to the amounts required by the buyer. Buyers’ preferences were assessed to determine the type of packaging materials that should be ordered from selected packaging producers. For example, it was found that 3kg and 10kg bags that were made of non-transparent and transparent materials were preferred by customers who would store the rice they bought in their homes. Rice could also be delivered in 20kg, 25kg and 50kg packages.

Although care had been taken in identifying where rice bags could be obtained, not all bags delivered complied with UMACO specifications. Some were poorly printed or did not have the necessary bar code, while others were larger than what had been ordered. Delays in delivering the bags during the harvest season when they were most needed also led to difficulties.
c. Marketing: Efforts made to market Usangu Rice included promoting it at agricultural trade fairs held at key locations: Arusha, Dar-es-Salaam, Lindi, Mbeya and Morogoro. At least two carefully chosen and trained UMACO representatives attended these events. They were responsible for establishing contact with potential buyers and were often able to sell considerable quantities of rice.

In July 2016, as part of ongoing market development activities, a UMACO store was opened in Dar-es-Salaam, and between October and December of that year, about 4 t of rice was sold. Market reach subsequently widened significantly, and increasing numbers of people have now become familiar with the USANGU brand.

Whilst there has been substantial market progress, there have also been difficulties. These include a lack of reliable transport to carry rice from Igurusi to market, the high cost of promoting USANGU at trade fairs, and the expense of opening new shops. In addition, a positive but complex problem arising from promoting Usangu Rice is that demand is now greater than supply.

Assessing impact and sustainability

The impact of the Mbarali agro-enterprise project can be assessed in several ways. In analysing project experience, MIVARF has been careful to note the problems that need to be addressed if progress is to be sustained.

The agro-enterprise approach to training, coaching and preparing farmers for agri-business initiatives has been successful in reaching both men (60%) and women (40%) farmers. It has helped them see their farm as an enterprise and to understand the dynamics of marketing and price fixing. Smallholders came to understand the importance of knowing about market prices, buyers’ requirements and regional demand. This information can help them decide how and at what price to sell their rice. It also reduced their dependence on middlemen and small-scale traders who they tended to see as their only market outlet. MIVARF encouraged farmers to explore the advantages of collective marketing, storage in public warehouses where buyers could see their product, and to adopt standard weights and measuring procedures.

Farmers agro-enterprise strategy on board

Kennan Sanga is a small-scale farmer living in the Lunwa village, in the Mbarali district in Mbeya. Since 1999, his main occupation has been paddy farming. A person with standard level seven education, Sanga is also married with six children.

Previously, while farming, he used to get 10 bags of 100 kgs per paddy acre and sold this at TZS 30,000 per bag (€11.50). After the training provided by the MIVARF programme, Kennan Sanga transformed himself into a commercial farmer.

“Training helped me to do commercial farming by starting keeping all farming records as well as establishing short- and long-term action plans on farming and business activities. All of these are a result of MIVARF training. For instance this year, I have managed to cultivate 2 hectares instead of less than one and as a result, the yield was 780 kg instead of the 260 kgs. With paddy value addition I have successfully managed to sell rice instead of paddy whereby in 2014/2015 I sold 6,343 kg of rice at TZS1750 (€0.67) per kg resulting in TZS 11,100,000 (€4,280).”

Further, Kennan reported his ability to do rice business without involving rice brokers and as a result, he has had a significant increase in income which he will use to pay his children’s school fees, buy a motorcycle and complete the building of his seven roomed house. “What contributed to my income increase and change is the result of the training I received from the MIVARF programme on paddy value addition,” he says.

Kennan appreciates MIVARF as it has given him the opportunity to own a share in the company and he is now the UMACO board secretary. With this company he has gained business marketing knowledge and is better able to identify business opportunities.

Mr Kennan Sanga
Its agro-enterprise training and coaching efforts also contributed to stimulating support for UMACO and its efforts to negotiate between USANGU farmers and those interested in buying their rice.

However, there are still many farmers who are unable to negotiate a fair price for their rice because middlemen know that if they offer to buy it at harvest time, there will be farmers who urgently need money to meet family expenses like school fees or loan repayments, and therefore will accept a very low price. Connecting these farmers—who often have little confidence in their ability to negotiate better prices—with those with more experience in dealing with buyers and middlemen is seen as a problem that needs attention.

UMACO and company sustainability

Among the factors that will affect the sustainability of production and future marketing activity is the sustainability and effectiveness of UMACO itself. As a company, it still relies heavily on funding contributed by shareholders. While this has been sufficient to cover the initial cost of establishing the company, funds must now be found to cover ongoing operational expenses. Currently, external sources as well as shareholders are being approached for financial support. In addition, MIVARF continues to train and support members of the UMACO board and management to enable them to deal with the complexities of business operations, including government regulations and taxation procedures.

The MIVARF project, which was programmed for the period 2013-2016 for Mbarali district council, came to an end in March 2017. The project is being handed over to the Mbarali local government and other development partners to ensure sustainability. At the same time, RUCODIA initiatives will continue to encourage an agro-enterprise approach.

**Conclusion: From concept to reality**

Smallholders can become pioneers of their own business once they realise future potential. “I have realised that we can do rice business ourselves instead of depending on the middlemen, because by working through our company it became easier and profitable,” said Mrs Kuruthum Mickdali Abdallah, a farmer and UMACO shareholder.

The groundwork facilitated by MIVARF has provided an opportunity for agro-enterprise development. Indeed, smallholder farmers become the marketers of their own produce through UMACO in collaboration with contracted farmer groups. Continued collective selling through UMACO empowers farmers in terms of bargaining power and income aggregation.

To draw farmers out of poverty and improve their incomes, UMACO needs to be supported to increase its capacity to purchase large volumes of paddy/rice directly from farmers at affordable prices. Further, apart from operating in a single focal area, it should scale up its operations to cover the whole district. Lastly, UMACO has to open up more selling points or use agents in different parts of the country to access potential buyers.
3

VERTICAL INTEGRATION: STORAGE
AGRICULTURAL VALUE CHAIN FINANCE FOR SMALLHOLDER FARMERS

Alice Kwizera
A project in Rwanda’s Kirehe district has targeted smallholder farmers and their cooperatives to help them leverage private investment and funds from financial institutions, and with this help them upgrade and diversify their activities. Finance for participants across seven agricultural value chains in the district has resulted in the construction of processing plants, greenhouses, warehouses and drying facilities.

Agriculture contributes significantly to Rwanda’s economy. The sector provides food, raw materials and markets for the industrial sector, as well as employment and agricultural exports that generate substantial foreign exchange. But smallholder farmers need working capital for primary production, and long-term finance to invest in post-harvest infrastructure that can reduce losses and improve product quality. Improving access to finance, therefore, can help smallholder farmers living in extreme poverty to increase their wealth and food production.

Unfortunately, despite government efforts to promote agricultural finance, financial institutions (FIs) continue to see the agriculture sector as risky. Challenges inherent in agricultural value chains also hinder the flow of finance: the lack of collateral, low productivity, an unpredictable climate, inadequate storage and processing, as well as market uncertainties, make it difficult for farmers to access finance.

The International Fund for Agricultural Development (IFAD)-funded Kirehe Community-based Watershed Management Project (KWAMP) has contributed to promoting financial services among various agricultural value chains in the Kirehe district, in eastern Rwanda, through the Value Chain Development Fund (VCDF) grant programme. The VCDF project targeted smallholder farmer cooperatives, agribusiness companies and individual farmers and – with technical and financial support – helped them leverage additional private investment and funds from FIs to upgrade and diversify their activities.

In Kirehe, participants from seven value chains – maize, rice, honey, cassava, banana and vegetables – have accessed loans from 11 FIs including five commercial banks, one microfinance institution (MIF) and five savings and credit cooperatives (SACCOs). The 25 projects involved in this initiative focused on upgrading and diversifying activities by installing food processing plants, purchasing equipment for medium-sized food processing units, constructing tomato greenhouses, as well as developing warehouse and drying facilities for maize and rice cooperatives.

**The agricultural value chain finance approach**

An ‘agricultural value chain’ considers both the actors and the sequence of value adding activities involved in bringing agricultural products from production to the end-consumer. This ‘farm to fork’ process begins with input suppliers and involves producers, producer groups, traders or aggregators, processors, retailers and wholesalers, as well as consumers and those involved in export.
In Kirehe, 28 participants from seven value chains – maize, rice, honey, cassava, banana and vegetables – have accessed loans from 11 financial institutions.

Each value chain actor has distinct characteristics and financial requirements. A producer needs to finance farm investments or inputs, while those engaged in processing and packaging might need long-term credit and equity to invest in machinery and buildings. In each category, the requirements of the different actors also vary. For example, a large-scale farmer needs credit to purchase heavy machinery, while a smallholder needs credit to purchase inputs like seed, fertiliser and pesticide.

The term ‘value chain finance’ refers to the flow of funds to, and amongst, the various links in a value chain, and to financial services, products and support services that address the needs and constraints of those involved in that chain. There are internal and external forms of finance:

- Internal value chain finance is financing that takes place within the value chain, for example, when a supplier provides credit to a farmer or when a lead firm advances funds to a market intermediary.

- External value chain finance is financing from outside the chain made possible by value chain relationships and mechanisms. For example, when a bank issues a loan to a farmer, guaranteed by a contract with a trusted buyer or a warehouse receipt from a recognised storage facility. Collateralisation based on warehouse receipts and risk mitigation, such as forward contracting, futures and insurance is also relevant here.

Programme objectives

The KWAMP agricultural investment project ran from 2009-2016 and its objective was to develop sustainable and profitable small-scale commercial agriculture in the Kirehe district. It was responsible for managing a VCDF grant of US$1,000,000 (about €850,000).

The purpose of the grant was to promote commodity value chain development by supporting producers’ integration into markets and increasing the value and volume of local commodities by facilitating the establishment of input and output bulking systems, for example by upgrading or constructing storage facilities and improving the management of drying, grading and processing operations. The project worked with local FIs such as banks, MIFs and SACCOs to facilitate lending to value chain stakeholders operating in selected value chains through a credit-matching financing scheme.

VCDF grants were combined with credit provided by local FIs. The loans that were extended by local FIs were complemented by VCDF matching grants to established (25%) and emerging (50%) value chains in Kirehe district.

COOPRIKI-CYUNUZI: a case study

COOPRIKI-CYUNUZI is a rice growers’ cooperative and its experience illustrates the approach and objectives of the KWAMP/VCDF project. Located in Cyunuzi village in the Gatore sector of Kirehe district, the cooperative has 2,856 members – 1,765 men and 1,091 women. Currently, COOPRIKI-CYUNUZI operates in the marshlands of Kibaya and Cyunzi, an area of 618 ha in Ngoma and Kirehe districts. Members are organised in 16 zones and in each zone farmers are organised in small groups depending on zone size.

The cooperative started in 2005, was officially registered in 2006 and in 2009 received a new
Certificate in order to comply with a new cooperative law. COOPRIKI-CYUNUZI’s objective is to promote the interest of rice farmers by mobilising them to join efforts to find solutions to the challenges they face, including middle men buyers who offer very low prices for paddy. The cooperative tries to channel all the paddy produced in the area through the cooperative to ensure a better price. The cooperative also provides the following services to its members:

- Organises and facilitates finance to farmers during land preparation;
- Supervises water distribution among farmers’ plots to ensure proper irrigation;
- Purchases and distributes recommended seeds and fertilisers;
- Organises loan payback at harvest time;
- Fetches paddy brought by farmers to collection centres and ensures its transportation to the main collection centre;
- Organises marketing of the paddy collected from members to different markets and negotiates prices on behalf of farmers;
- Safeguards the interests of rice farmers in Kibaya and Cyunuzi marshlands through advocacy and other negotiations relating to marshlands, water distribution and other challenges;
- Represents farmers in different rice business forums.

The COOPRIKI-CYUNUZI project ran from 2014 to 2016 and its objective was to establish post-harvest infrastructure on three sites. At each site, a medium-sized warehouse and drying area were constructed to help rice growers handle initial harvest operations efficiently before the paddy was collected and sold to different markets.

Total project costs were FRw 282,352,208 (€285,000). Through a co-financing arrangement between KWAMP and Banque Populaire du Rwanda (BPR), the bank provided a loan of FRw 72,000,000 (€72,500) to the cooperative while KWAMP provided a VCDF grant worth FRw 70,000,000 (€70,500). The cooperative’s contribution was estimated at FRw 140,352,208 (€142,000) and included the purchase of three plots for FRw 35,000,000 (€35,300).

**Financing project activities: the steps taken**

The financing and construction of post-harvest infrastructure was completed within 24 months. Working as Finance Specialist at the Ministry of Agriculture and Animal Resources (MINAFRI)/IFAD Single Project Implementation Unit (SPIU), I coordinated the COOPRIKI-CYUNUZI project which involved producers, service providers, rice milling factories, FIs as well as local authorities. These stakeholders took part and became involved in activities including stakeholder meetings, creation of market linkages, business development services, approval of the bank loan and VCDF grant, as well as the construction of warehouses and drying facilities.

Project identification, due diligence, site visits, business development, bank loan approval and VCDF grant release were among the steps I had to see, together with the hired business planning service provider, AC Team Consultants Ltd. At each stage, we met with the management of the cooperative and lead farmers to discuss feasibility and other aspects of the project, such as the capacity of the cooperative to make its own contribution (a bank requirement); where the warehouses and drying grounds would be constructed; the contract commitments attached to the loan and expected sources of repayment; as well as how to ensure that all farmers became involved.

KWAMP representatives met with BPR officials to discuss a possible partnership that would support COOPRIKI-CYUNUZI in realising post-harvest infrastructure. KWAMP representatives also met with local authorities to ask them to help facilitate administration procedures, such as land regularisation in the local land bureau and the provision of construction permits.
In order to make the cooperative’s business more sustainable KWAMP brought in specialists who could help strengthen the cooperative’s capacity in daily management, following up farmers’ field activities, dealing with middlemen and signing of contracts with potential buyers.

During due diligence the COOPRIKI-CYUNUZI management team agreed on the loan option which was a requirement for obtaining VCDF grant approval. However, the cooperative’s representatives did not have the skills needed to prepare the proposals for the loan and the VCDF grant. Therefore, KWAMP gave the AC Team the task of developing the documentation required by the cooperative including, business plans and the grant proposal. AC Team also assisted in helping to meet other requirements until the loan was approved and the VCDF grant was released.

AC Team had signed a performance contract with KWAMP and was paid in instalments upon the completion of each step until the loan and grant had been released. In addition, AC Team was tasked with strengthening the relationship between the cooperative and the bank, and collecting information about potential markets and those buying the rice paddy produced by COOPRIKI-CYUNUZI members. At the same time KWAMP representatives met with BPR branches in Kirehe and Ngoma as well as with the bank’s head office to discuss project co-financing and a joint follow-up on financed activities.

Once the loan from BPR had been approved, the grant approval process was initiated. Contracts were signed, one between KWAMP and COOPRIKI-CYUNUZI and another between KWAMP and BPR. Both the loan and grant were disbursed in instalments upon joint approval and when tasks had been completed.

Construction work started immediately after the first financial disbursement. The cooperative’s manager initiated a bidding process and the best bidder started constructing the warehouses and drying facilities, closely supervised by COOPRIKI-CYUNUZI, KWAMP and BPR. Eight months later three warehouses and three drying facilities had been built on the selected sites. When the construction was completed there was an official launching ceremony and the project was officially closed in December, 2016 which coincided with the end of the KWAMP project.

**Challenges**

The COOPRIKI-CYUNUZI post-harvest infrastructure financing project was successful, but it also faced some challenges. Like many smallholder associations, COOPRIKI-CYUNUZI lacked information about how to get funds from banks and this proved to be a major constraint. In fact, the bank required clear business and construction plans and cost estimates for the warehouses and drying grounds, official land documents, formal collateral, a resolution from the cooperative’s board authorising the application for a loan, as well as information about the COOPRIKI-CYUNUZI contribution to the project.

Even with the assistance of KWAMP and of AC Team it took time to finalise everything and get the entire file ready to be presented in a way that was acceptable to the bank. This resulted in loan processing procedures being delayed.

After collecting the documentation required by the bank, the next step was to develop a bankable business plan. The cooperative did not have the technical capacity to do this so KWAMP hired AC Team to write a business plan and organise procedures with the bank. Steps also had to be taken to regulate land documents for the three plots that were being purchased and where the warehouses would be constructed so that they could be used as collateral for the loan. This process further delayed the loan’s approval and the release of the KWAMP/VCDF.

The other constraint facing the cooperative was the high (19%) interest rate but they had little choice but to accept it because they needed money to qualify for KWAMP financial support and realise their project.

**A success story**

This project was a success. Rice growing activities had previously lacked infrastructure and the distance between the rice paddy fields and the main office in Cyunuzi and markets was considerable. All the three sites are now operating autonomously. The cooperative has now the capacity to store above 2500 tons of rice paddy in three stores constructed with the support of KWAMP Project through the VCDF Grant Programme and dry them on drying grounds paired with each of the three stores.

In addition, all the stores are equipped with an office which serves farmers to meet regularly at the site and decide on seasonal activities.
Improving producers’ access to finance stimulates productivity, creates rural employment opportunities and promotes economic growth.

**Key recommendations**

Policy-makers are advised to create a working environment for agricultural value chain finance and provide directions to other stakeholders willing to promote financial activities relevant to value chain practices that can strengthen rural livelihoods. Recommendations include:

- Supporting agricultural value chain finance legislation;
- Enhancing financial inclusion in agricultural value chain finance;
- Creating mechanisms through which formal lending institutions can increase rural outreach, for example the creation of SACCOs in each district of Rwanda;
- Promoting the cooperative movement so smallholder producers can be regrouped;
- Promote value chain models and value chain financing model development;
- Build supportive alliances;
- Contribute to risk mitigation.

Governments and other supporting agencies have to play a facilitating role in guiding policy-makers and ensuring that the financial system provides sufficient finance to agricultural value chain actors so that demands arising from activities along the value chain can be meet. To do so, governments must:

- Build up the capacity of small-scale producers and other chain actors to ensure a clear separation of roles;
- Enhance sustainable market linkages between small-scale producers and agribusinesses;
- Promote promising value chain finance strategies and business model development;
- Facilitate linkages between local financial institutions and value chain leaders.

Improving small-scale producers’ access to finance stimulates productivity, creates rural employment opportunities and promotes economic growth. Agricultural value chain finance can have a positive impact on social conditions and rural producers’ livelihoods. Therefore, FIs have to play their role in promoting easy access to financial services by smallholder producers and other value chain actors. With adequate agricultural value chain finance, producers can realise their full potential and get enough inputs, fertilisers and chemicals and labour for field operations.

**Alice Kwizera** works as Access to Finance Specialist, at the Ministry of Agriculture and Animal Resources of Rwanda.  
*E-mail: kwizeraalice@gmail.com*

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FINDING SUCCESS WITH SOYBEANS

Anthony Wanyoto
In northern Uganda, one cooperative has benefitted from the second phase of the Vegetable Oil Development Project, which has given its members access to training, improved seeds and guaranteed markets. By boosting soybean production, the project is also increasing the supply of oilseeds for Ugandan processors.

The Government of Uganda has identified oilseeds as one subsector with the potential to stimulate economic growth and reduce the poverty of the smallholders who produce them. Increasing the production of oilseeds and their products has gradually reduced national spending on the importation of vegetable oil products and palm oil.

While sunflower has been the leading oilseed crop since the turn of the century, since 2012 soybean production has been growing steadily given the increased industrial capacity to process the oil used in animal feeds. Soybean also has a high protein content that can help improve the nutritional status of a family. It can be used to make soymilk, which is a cheaper source of protein for infants than dried dairy milk powder, and this can help poor households provide a healthy diet for their young children. Soybean can also be used as a nutritious snack.

Since the late 1990s the Ministry of Agriculture, in partnership with the International Fund for Agricultural Development (IFAD), has invested hundreds of millions of dollars in the development of the oilseeds subsector during the first phase of the Vegetable Oil Development Project (VODP). In 2010, the Ministry of Agriculture in partnership with IFAD invested another €120 million in the second phase of the project – VODP2.
The largest portion of VODP2 investment has been allocated to palm oil projects in western Uganda, however northern Uganda has been identified to be the leading hub for oilseed production and processing. There are two large processors, eight medium processors and over 20 small processors in the Lira hub alone. The total consolidated processing capacity for sunflower and soybean is about 450 t per day. Yet the crushing materials available only meets 50% of requirements. Increasing the production of sunflower and soybean is therefore top of the agenda for VODP2 and leading processors given that the market for vegetables oils and its products have been stable in recent years.

The leading processors – Nile Agro Industries, Mt Meru and Mukwano – were keen to develop soybean production capacity but were constrained by the poor productivity of farmers. There are approximately 35,000 soybean producers, with numbers continuing to grow, but over 50% of these producers are using poor quality home-saved seeds, leading to low productivity.

The Acwec Omio Farmers Cooperative in the Loro sub-county, in the Oyam District of northern Uganda, began as a group of women ploughing together in rotation. In 2014, Acwec Omio became involved in inclusive seed multiplication and were trained and later linked to Makerere University, Kampala in order to access foundation seeds. They bought a few kilos of soybean seed to plant and to assess the new crop’s adaptability. “We were really impressed by the performance of the hybrid soybean seeds. Being our first trial, we were all surprised by the crop performance,” Eddy Okello, the Acwec Omio’s chairperson recalls. In 2015, they registered as a formal farmers’ cooperative and started to cultivate soybean in this predominately sorghum, maize and bean-growing area.

**Starting out**

After Acwec Omio expressed an interest in introducing oilseed crops to Loro farmers, VODP2’s Oil Seeds Coordinator and Hub Coordinator-Lira Hub visited Loro. While on this fact-finding visit, VODP2 staff noted that since cotton had less than a month before it could be harvested and there were still rains, soybeans could be planted between the cotton lines. This would not only ensure the maximum use of land by having two crops in the same field, but would also require no extra labour cost as far as field preparation was concerned.

In 2015, Acwec Omio received training from VODP2 on oilseed production and group dynamics. The question was raised about whether there was a ready market for the produce. It was at this stage that the VODP2 team contacted Magan Patel, the managing director of Nile Agro Industries, about the possibility of developing a partnership with Acwec Omio and making an ‘off-taker’ agreement. Arrangements were agreed upon and VODP2 witnessed a tripartite memorandum of understanding signed between Acwec Omio (the producer); Nile Agro Industries Limited (the ‘off-taker’); and Uganda Development Bank (loan provider). Acwec Omio also formed a marketing structure to help negotiate prices to enhance profitability.

Farmers decided to take on oilseeds after going through a profitability analysis and seeing that oilseeds – especially soybean – were more profitable than maize and beans. When Acwec Omio were given the opportunity to participate in seed multiplication, group members selected Mrs. Okello as the farmer best placed to participate based on her long experience of growing soybean. “We wanted to find out the adaptability of three crops [soybean, sunflower and cassava] to a single plot of land at different intervals in a year,” she explained.

Eddy Okello had first begun growing the crop between 1979 and 1985 and either bought seed from agro-input shops or used home saved seed. She grew a local variety of soybean, commonly known as Katumani, which yielded 120–160 kg per ha. She then embarked on intercropping maize and beans and was able to harvest 360–400 kg of maize and 40 kg of beans per ha. She started growing soybean again in between 1997–2005 and, by monocropping, the Katumani variety yielded 240 kg per ha. She began growing Katumani again in 2010, but on a smaller scale.
Anthony Wanyoto works as Communication and Knowledge Management Officer, Ministry Of Agriculture, Animal Industry & Fisheries, Uganda.
E-mail: awanyoto@gmail.com

423 million: the amount of money in shillings that the Awec Omio cooperative made from their first harvest

At the beginning of Season A (March-June 2014/15), Mrs. Okello received 20 kg of soybean (MAKSOY 3N). She could only plant 16 kg in her garden so she gave 4 kg to another member of the group. She continued receiving training and monitoring from VODP2 and the Agency for Rural Transformation (AFSRT) extension facilitator, Hub Coordinator and the National Crops Resources Research Institute (NaCCRI) team.

VODP2 linked the cooperative to sources of quality seed and farmers bought 12,000 kg of MAKSOY 2N and 3N which was then distributed to 20 of Acwec Omio’s small-scale farmer groups in Loro sub-county, enabling farmers to plant 600 ha. In 2015, the cooperative invested UGx. 26.4 million (€6,000) and a total of 360 t of soybean was produced which gave a total income of UGx 432 million (€100,000). This money enabled them to contribute to infrastructure development and the acquisition of post-harvest equipment. “The introduction on oilseeds crops has greatly helped us,” Mrs. Okello said. “VODP2 gave us all the support we needed.”

Moving forward

The cooperative faced many challenges. Pests attacked the crop, transport for the soybean they produced was unreliable, seed mixing lead to a dilution in the purity of varieties and there were also problems in recovering multiplied seed. Changing weather conditions as well as challenges in managing group dynamics all affected production and output. But Acwec Omio is determined to overcome these problems and make the most of the benefits of growing soybean.

If a farmer is focused and patient, soybean production can be a good source of income because of the high yields and the good price it attracts. Eddy Okello believes that farmers should be encouraged to diversify their sources of income and learn how soybean can be used to benefit their households. “Vegetable oilseed production has the potential to reduce rural poverty if institutional support is given to encourage the rural poor to take on the initiative as a business,” she said. More farmers are being mobilised to plant and grow soybean for commercial purpose and a few Farmer Learning Platforms on soil improvement will be held to enhance productivity.
IMPROVING SUNFLOWER PRODUCTION AND REDUCING POST-HARVEST LOSSES

Felix Mlay
A project in Singida, Tanzania, is working with smallholder producers to stimulate market-based agriculture. To increase the quantity and quality of products available for the market and address poverty in the region, the project focuses, in particular, on overcoming the barriers smallholders face to participating profitably in the sunflower market.

In Tanzania, the smallholder producer sector continues to be a major source of employment; on the mainland, 75% of the labour force works in agriculture. These rural producers tend to be resource poor, have limited food security and income, and are primarily engaged in cultivating staple crops.

A project based in Singida, established by the government of Tanzania under the Market Infrastructure and Value Added, Rural Finance (MIVARF) programme, set out to address the factors that prevent rural producers from fully exploiting the potential of their holdings. These include their limited access to financial services as well as the region’s poor market infrastructure. Running since 2011, the project has been financially supported by the International Fund for Agriculture and Development (IFAD) and the African Development Bank.

In contrast to earlier initiatives undertaken to deal with such problems, the main objective of the Singida project was not only to increase the quantity and quality of products available for market, but also to address income poverty by dealing with the factors that limit sunflower market access. Sunflowers are among the most prominent crops in Singida, where land, climate and other environmental factors favour their growth. The Singida people depend on sunflower oil and seed cake business for their livelihoods.

Mellon Consult(s) Tanzania Limited is a private company that deals with capacity building and empowering smallholders. They were contracted by the Manyoni District Council to increase the capacity of poor rural households in Singida to gain effective access to financial services, and to provide them with the market linkages they need to ensure household food security and increased per person income.

The Singida project is also part of the Producer Empowerment and Market Linkages initiative, funded by IFAD and the ADB. Initially, farmers were organised into groups so that they could pool their skills
Eight out of ten producers accepted the new harvesting technologies suggested, and the collective procurement has had a positive effect.

and financial resources and take measures to improve their quality of life. Seventy-seven sunflower producer groups of between 15 and 30 members in the Manyoni district were organised in ways that enabled them to coordinate their efforts and resources. In addition to these farmer-oriented activities, traders and processors also received training designed to help increase their managerial and financial skills. Two representatives from each of the 77 groups were nominated by their members to attend a training-of-trainers (TOT) session to help those continuing project activities for ensured sustainability.

The sunflower value chain

In Singida, specific attention has been given to meeting the growing market demand for sunflower seed. Steps are being taken to enable farmers to take advantage of

A success story

Andrea Robert, one of the beneficiaries of the project, has had an active and positive involvement in activities and has become an ambassador to his colleagues. From the start, Mr. Robert attended the project’s sensitisation meetings. During the first visit to his village in November 2015, he showcased what he was doing and was later appointed by his group to represent them at the 2-days TOT session organised by the project team at Itigi in October 2016. Furthermore, Mr Robert was also actively involved in the stakeholders’ forum held at Manyoni district’s conference hall, which was attended by 97 participants. The photograph above of Mr Robert was taken during a regional supervisory committee visit to his demo plot, and he can be seen explaining the benefits of the project’s interventions, especially those related to land management, seedling spacing, harvesting and post-harvest handling.

Andrea Robert
the fact that the soil and other physical characteristics of the region favour sunflower production.

To meet the increasing demand for sunflower seed means not only dealing with problems associated with the underutilisation of land, but also making adequate storage facilities available. Among the first steps taken to increase the strength and sustainability of the sunflower value chain was to identify and bring together key players. These included producers, processors, buyers, financial institutions and government officials, as well as experienced service providers from other areas.

In October 2016, a forum committee consisting of 12 members involved in the sunflower value chain was established, and a meeting was organised. Ninety-seven stakeholders who would also be actively involved in the development of project activities were also selected and invited to join the forum. Although some stakeholders were reluctant to be involved because no allowances were paid, the general atmosphere during the forum meeting stimulated enthusiastic discussions about how improvements in sunflower production and marketing could be realised. “Strict regulations will be established by local government authorities to remove illegal buyers, and marketing centres will be established so that the government gets its right revenue and producers enjoy the right buyers”, said Ally Minja, the Itigi district chairman.

The involvement of local leaders, producers and processors in the forum meeting, and the subsequent discussions, substantially contributed to increasing farmer confidence in the project objectives and in the approach being adopted. During the stakeholders’ forum, Mr Luende, district executive director said that “all ward chancellors and village executive officers are to include road and water system construction in their annual budget. This will help ease market access and reaching storage facilities”.

In 2012, post-harvest losses of cereals and sunflower seeds was estimated to be between 15% and 25%. This had a powerful negative effect on the prices farmers received for their products. Farmer groups that had been organised by the project set about working to ensure that by 2018, post-harvest losses would be reduced by at least 10%. Special attention is therefore being given to improving farmers’ bargaining power and negotiating skills so they can take advantage of collectively buying inputs, and be able to deal more effectively with middlemen who buy their quality products at very low prices.

The learning by practice approach has played an important role in all capacity building activities. For example, selected ‘lead’ farmers already adopting the technologies have been actively involved in transferring these skills to their farmer colleagues and farmer representatives. Of particular importance has been showing farmers how to calculate the amount they were losing per acre, given current practices, and how this affected their income.

Farmer Field Schools involving agricultural extension officers were also organised to coach farmers in best farming and harvesting practices. While in general many farmers took advantage of the changes being introduced, there were some who were reluctant to cooperate because they expected immediate returns. Developing policies that would secure further sustainable developments in this sector proved difficult. Policy makers were slow to react to the project proposals. It was not easy to reach agreement with those in policy making positions, despite the fact that the Ministry of Agriculture strongly encourages the development of policies that would facilitate this type of initiative.
Project activities designed to improve the way agricultural products were being harvested and packaged, in combination with the construction of a 1,000 t capacity warehouse, have led to an initial 5% reduction in post-harvest losses and an improvement in incomes and living standards. This has encouraged farmers to start saving to improve their financial stability. “Ukiihiadhi mazao yako ghalani kwa muda wa miezi mitatu kwamba utayaongeza dhamanini kwa kuwa sehemu salama, kuondokana na wadudu waaribifu, na pia kuyauza kwa bei nzuri kisicho cha msimu,” said Rebeca Mathayo, Chairperson for the Agricultural Marketing Co-operative Society at a Muhanga Village meeting in 2016. She shared a view held by most participants: that when you store your cereal in a warehouse, first you avoid risk in many ways, and you will also add value by selling the produce at a higher price when the produce is out of season.

**Main achievements**

Eight out of ten producers accepted the new harvesting technologies suggested, and the organisation of the collective procurement of inputs has had a positive effect on production costs. Farmers’ products can now be stored in the recently constructed warehouse and this has contributed to minimising post-harvest losses. On average, farmers can now produce seven bags of sunflower seeds per acre instead of four.

With improvements in product quality and collective marketing, arrangements have been made with TFDK – a private sunflower seed processing and packaging company – to buy all the produce from the project’s focal area. In addition, private investors have shown an interest in investing in activities, such as supplying post-harvest materials including canvas and weighing scales, as well as other agricultural inputs.

Financial service providers have also started negotiating with smallholders about how to deal with the warehouse receipt system, even if this has taken long as the warehouse receipt system is risky and failed in some areas. Currently, the project is trying to convince the Tanzania Agricultural Development Bank (TADB) to become involved in the warehouse system receipt system in the project area. Two major banks – the National Microfinance Bank and CRDB plc – have chosen not to participate because they have had bad experiences with a similar system in the past.

The TADB, established by the government to improve agricultural and rural livelihoods, could be in a position to support the warehouse receipts operation. The project’s positive impacts are on farmers’ income and food security, in addition to the fact that the Government of Tanzania has removed tax on selected agricultural inputs – in line with its decision to work towards improving the livelihoods of rural people – and this has had a positive impact on those involved in project activities. Lead farmers and extension workers are actively encouraging and organising smallholder producers in an effort to extend the impact seen.

**Felix Mlay** works as Senior Consultant, Mellon Consult(s) Ltd.
E-mail: felixmlay@gmail.com

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MINIMISING POTATO SEED LOSSES AND IMPROVING PRODUCTION

Theresa Imanishimwe
Potatoes are important income earners for farmers in Rwanda. To meet the quantity and quality demands of buyers, the Government of Rwanda is supporting the Climate Resilient Post-Harvest and Agribusiness Support Project (PASP), designed to improve post-harvest infrastructure in the potato value chain.

The Rwandan government’s main economic objective for 2020 is income improvement. To achieve this, plans are being made to transform the country’s economy so that it is knowledge-based, service-driven and private sector-led.

Realising this transformation will depend on the dynamism of the agricultural sector and, in particular, on the sustainable growth of food crops given the increasingly uncertain climate. Improvements are therefore needed in both the physical and policy environment to ensure agricultural intensification and growth. Steps must also be taken to encourage cooperative bulk selling by farmers. In addition, the distribution of farm inputs must be improved and modern infrastructure must be developed in key commodity value chains.

Since 2007, the Crop Intensification Programme has been the flagship programme of the Ministry of Agriculture and Animal Resources (MINAGRI). It has focused on increasing the production of six priority crops: maize, wheat, rice, Irish potato, beans and cassava. The programme involves facilitating access to improved seeds and fertilisers, the consolidation of land for more effective use, and the provision of advisory services.

Reducing post-harvest losses of key commodities is expected to generate additional income for smallholder farmers. To improve post-harvest handling and storage facilities, the Government of Rwanda designed the National Post-harvest Staple Crop Strategy which aims to:

(i) Develop an efficient post-harvest system driven by the private sector to reduce post-harvest losses and ensure food security;
(ii) Increase competitiveness by decreasing marketing costs along the value and supply chains;
(iii) Enhance farmers’ access and linkages to markets.

In line with this strategy, the Climate Resilient Post-Harvest and Agribusiness Support Project (PASP) was designed to reduce post-harvest losses in the Irish potato value chain through two interventions:

(i) The HUB: an aggregation point for capacity development programmes and business coaching, which respond to farmers needs;
(ii) Post-harvest climate resilient agri-business investment support.

Scope of the project

In Rwanda, Irish potatoes are eaten by many people and there is a big demand for them. For this reason, through the PASP project, the government is encouraging Irish potato cultivation in areas where climate conditions are favourable, such as the Musanze district.
The Cooperative pour la Production Agricole et Augmentation des Intrants (COOAPAI), is an Irish potato cooperative active in the Gataraga sector of the Musanze district, northern Rwanda, where large quantities of potatoes are grown. Current government policy is to establish Irish potato collection centres like those of COOAPAI elsewhere in Musanze, so that buyers can meet with those who grow and sell potatoes.

COOAPAI has shown how a farmers’ cooperative can link producers to other key stakeholders along the value chain. These contacts help farmers identify the main causes of post-harvest losses and assess the impact of such causes at each stage of the Irish potato value chain. Such an assessment helped PASP to build up sustainable mechanisms that minimise post-harvest losses.

In this way, the project planned to:

- Develop a comprehensive action plan with clear activities and expected outputs;
- Conduct market analysis, including an assessment of market linkages and development potential, with the owners of small and medium enterprises and market actors in the Irish potato value chain, as well as a value addition needs assessment;
- Organise and strengthen COOAPAI;
- Develop training modules and conduct training and coaching services on the following:
  - Cooperative organisation, and management;
  - Business plan design and development;
  - Irish potato post-harvest operations (harvesting, handling, transport, storage and collection point management);
  - Irish potato value addition and quality control;
  - Market analysis and market access;
  - Calculation of production costs;
  - Design and management of the HUB model.
- Assist COOAPAI to develop a 3 year strategic plan;
- Identify and recommend post-harvest materials and infrastructure that farmers can use for handling, packaging, processing and storage, as well as suppliers of these materials;
- Provide technical support when equipment needs to be purchased;
- Help COOAPAI with value addition (e.g. proper packaging and development of new Irish potato products);
- Organise and assist farmers’ cooperatives, as well as key value chain actors, to establish HUBs;
- Facilitate COOAPAI’s access to financial services (credit, savings and loans are a key HUB service);
- Train farmers’ cooperatives in management and maintenance of post-harvest infrastructure;
- Develop strategies that encourage farmers’ cooperatives to include youth and women at decision-making levels;
- Sensitise and assist cooperatives to develop bankable business plans that can be submitted to financial institutions for loans and grants under PASP and the Adaptation for Smallholder Agriculture Programme; and
- Develop procedures to follow up and assess the implementation of these plans.

Implementing these tasks involved a thorough review of relevant literature, as well as field visits and consultative meetings with Irish potato cooperative members and key stakeholders, including agro-dealers, transporters, processors, wholesalers, retailers, and financial institutions. This enabled the identification and analysis of the critical challenges affecting the development of the Irish Potato value chain. Cooperative members and other key stakeholders were then mobilised to get involved in the HUB and given assistance to ensure that the post-harvest chain is well managed and losses reduced. To fully achieve this, the cooperative will be helped to develop bankable business plans and linked to financial institution when finance is needed.

COOAPAI and the HUB

In collaboration with the district agronomist, a field visit was made to COOAPAI to introduce the project, capture farmers’ expectations and gain an insight into the Irish potato value chain. In 2016, 45 farmers – 20 men and 25 women – took part in discussions during the one-day meeting and field visit, as did COOAPAI’s executive and audit committees and the Rwanda Potato Traders (RPT) organisation.

During the meeting, PASP field staff gathered information on the current market structure of the potato value chain in Gataraga and identified the challenges and opportunities. The key challenges included poorly organised cooperatives, poor harvesting methods, transport problems, the lack of proper storage technologies and inadequate collection centres. The role of middlemen in the marketing process was also identified as having a negative effect on farmers’ incomes.
A comprehensive action plan, which detailed key interventions to be carried out over a 12 month period, was developed in response to these findings and indicators to evaluate the plan’s progress were also defined. This included a training programme and the organization of the HUB.

COOAPAI has 16 individual farmer members and works with 10 farmers’ associations, each of which has 150 members. After a capacity needs assessment, farmer members were trained by the PASP project in topics that addressed gaps in their knowledge and skills. The training content developed included materials relevant to:

- Cooperative organisation and management;
- Business plan design and development;
- Irish potato pre-harvesting and harvesting activities and post-harvest operations – sorting, washing, cleaning and grading, packaging, transport, storage and collection point management;
- Irish potato value addition and quality control;
- Market analysis and market linkages;
- Cost-benefit analysis – calculation of production costs and pricing;
- Organisation and management of the HUB model.

The next step was the organization of the HUB. This was built around COOAPAI Potato Collection Centre Ltd., and included farmers, processors, agro-dealers, traders, transporters, NGOs, local government entities and financial institutions – such as banks, micro-finance agencies and the Savings and Credit Cooperative, as well as guarantee fund institutions. Meetings and study tours were organised to increase awareness of best practices to reduce post-harvest losses.

Farmers and HUB members identified appropriate Irish potato value added products based on the HUB members’ needs and preferences, as well as market and financial capacity. The stages involved in primary processing – cleaning, sorting, grading, packaging and storage – and secondary processing of Irish potato, which leads to the production of products like crisps, flour, starch, ethanol and liquor, were discussed in these meetings.

In collaboration with PASP, COOAPAI elaborated a strategy and business plan for reducing post-harvest losses and producing more value added products. The Post-harvest and Storage Department of Musanze district assisted the cooperative in developing the business plan based on the interventions highlighted in the strategic plans.

“We store our seeds safely”

My name is Josephine Mukankusi, I am married and have six children. I am a farmer and I mainly cultivate Irish potatoes. I am the president of the COOAPAI cooperative, where we cultivate 25 hectares from which we can easily harvest 500 t of Irish potatoes. Before we became involved in the PASP project we used to harvest potatoes during the rainy period and encountered big post-harvest losses. This was because we lacked a modern potato seed warehouse and relied on germination bags for storage. Now the project has helped us to construct a warehouse, so we can store our seeds safely. PASP provided training on best practices for post-harvest storage and processing, and now, before harvesting we dehaul our potatoes in the field in order to ensure they have reached maturity. I have also been trained how to calculate production costs, which makes it easy for me to calculate profit and loss predictions.

Mrs Mukankusi
**Outputs and achievements**

So far, the outputs of the COOAPAI project include:

- A detailed market analysis report on the Irish potato value chain. The price of Irish potatoes used to fluctuate a lot because farmers were not able to store them, but now that COOAPAI has been linked to RPT, which buys the crop directly, the unit price of Irish potato has increased as there are no middlemen involved and less potatoes are spoiled as a result of poor storage;

- A value addition needs assessment. COOAPAI is presently constructing a warehouse for potato seeds, which will be stored and sold at planting time for an attractive price. The cooperative aims to have the warehouse for potato seeds ready within 3 years, along with its own truck to take potatoes to market. COOAPAI has received a PASP grant worth €10,300, through the TWUZUZANYE Savings and Credit Cooperative in Gataraga, to construct the warehouse, which they have already repaid;

- At least 1,500 farmers per year have been trained in post-harvest operations and are now able to run their Irish potato cooperatives as business enterprises;

- COOAPAI is now linked to other HUB actors, including financial institutions, buyers and agro-dealers for input delivery. The cooperative needs to use these links to provide organic and mineral fertilisers and other inputs to farmers at moderate prices;

- At least two business ideas for value added potato products were identified in collaboration with farmers and other service providers, and has since been funded by financial institutions, including the Savings and Credit Cooperative.

PASP is now working with the members of 10 local potato cooperatives. These have been selected from the 20 cooperatives involved in the post-harvest infrastructure and climate awareness project based on the number of members, area of land under cultivation and volume of production.

Some 1,500 farmers from these organisations — 750 men and 750 women — were trained for a period of 3 days and then coached for a further 2 weeks on their own fields. A particularly important criteria used in determining which farmers would be trained and coached, was age. At least 30% of the farmers selected had to be less than 30 years-old. The trainers identified by PASP worked with groups of 30 farmers on issues relating to storage, marketing and value addition.

**Relevance and follow up**

Project evaluations indicate that about 1,000 cooperative members have been reached and that livelihoods in the Musanze district have substantially improved. While production has risen from 20 t/ha to 25 t/ha and the price of potato seed has fallen, the fact that climate change is affecting the amount of potatoes harvested has to be taken into account.

Some farmers rejected the project’s approach because it cost time and money to implement, while others found it difficult to transport their potato crop to their cooperatives’ warehouse because of the distances involved. Other factors that inhibit the adoption of the project’s best practises include the fact that cooperatives might not have the financial capacity to provide storage facilities with a cold room, for example. Account must also be taken of the fact that some farmers prefer to store potatoes on their farm and claim that the improved seed potatoes lack the succulence and taste of the ones that they have been cultivating.

Those farmers who have adopted the new approaches promoted by the project can continue to depend on the support of the stakeholders who have been involved in this initiative from the beginning. PASP, for example, has stated that it is prepared to pay 40% of the costs of infrastructure improvements if farmers can provide the remaining 60%. Logically, many farmers are interested.

Theresa Imanishimwe works as Post Harvest and Storage Officer at the MINAGRI/PASP Project.

E-mail: theresimanishimwe@gmail.com
4 INNOVATION PLATFORMS
INNOVATION PLATFORMS FOR SOLVING MARKETING INEFFECTIVENESS

Frederick Ogenga
In Masalala, north-western Tanzania, the creation of an innovation platform has helped to improve smallholder paddy production and reduce inefficiencies in access to inputs and credit. Other value chain actors, including millers and buyers, have also benefitted from an improved supply of better quality paddy.
When facilitating an innovation platform it is important to establish rules right from the start.

problems, explore opportunities and identify solutions that can lead to improvements and gains in a specific sector. When thinking of developing an innovation platform it is important to understand how respective sub-sector value chain actors relate and clearly understand the synergies existing between them. In Msalala Council, a detailed paddy sub-sector value chain study was carried out for the benefit of the actors involved. The study highlighted existing business opportunities and challenges. The results of the study were shared through feedback meetings and value chain actors adopted the insights provided by this information, and committed themselves to working together to find lasting solutions to the challenges facing the sector.

Smallholder rice producer groups, marketing associations, processors, agro-input providers, buyers, financial services providers, the local government authorities and the MIVARF programme coordinating unit, as well as IFAD, have collaborated closely in developing the initiative. In the first organised innovation platform meeting, SEIDA worked with those involved to appoint and select an interim platform working group committee. This committee worked closely with SEIDA teams and continued consultations with key platform member organisations and interest groups to ensure that their concerns, problems and challenges would get attention from sector-wide practitioners.

The selection of the first interim platform committee required every key actor to select one representative. These included paddy producer groups, financial institutions, paddy milling and processing firms, agro-input providers, rice traders and aggregators, SEIDA and the local government authorities. Smallholder producer groups, because of their large number, were given three members. The selected representatives were then asked to appoint their chairperson and secretary. The first platform meeting was attended by 38 members and interim platform leaders were identified. The company CEO of the Mazao Group (see box) became the chairperson and the secretary came from Msalala— a paddy farmers’ company.

The interim leaders were subsequently tasked with developing the terms of reference for the committee, with technical support from SEIDA, and given the mandate to ensure that the terms of reference and the platform calendar of events and meetings were established within the first month so that a larger platform meeting could be convened to catch-up with the farming season calendar.

**Innovation platform meetings**

After the first innovation platform meeting, a second meeting was called to approve the platform terms of reference and the calendar of events. Five meetings have been held since October 2015, and at every season preparation and harvest period thereafter. The meetings involve planning and review of the year’s production outcomes against what was forecast, with SEIDA playing a backstopping role.

Key actors were given sufficient time to present their activities and what they were doing that made them eligible to become members of the innovation platform. From their presentations SEIDA was able to document existing synergies and the problems that each player faced that required the attention of the other players in the platform.

It became obvious during these meetings that members were opening up and bringing very important information to the platform about the paddy sub-sector limitations and opportunities. For example, producers complained about poor prices, untimely access to seeds and fertilisers, high production costs as well as the lack of credit for inputs and production equipment. Millers and buyers were concerned about the poor quality of paddy and rice, high transport costs and the inadequate volume of supplies.

This has shown that, when facilitating an innovation platform, it is important to establish rules right from the start. The facilitator’s role should be known and accepted by all players, and the facilitator must always refrain from showing sides and ensure that all members get adequate attention and that their opinions are respected. But above all, the facilitator
EXPERIENCE CAPITALIZATION 4Ps in East Africa

The case of Mazao Group, Kahama

The Mazao Group is a milling and processing company that turns paddy into finished rice. The company is a family owned enterprise established in 2014 and owned by Mzee Hamisi Mazao. To date the company employs 16 members. During the paddy subsector value chain study in 2015, SEIDA interviewed the company and representatives attended a study feedback meeting. The firm became a member of the innovation platform and the company CEO was selected to be the first chairperson of the Msalala Innovation Platform.

The Mazao Group has benefitted from the innovation platform. Previously the company had bought paddy from Rukwa and Katavi through brokers because it was difficult to get adequate and quality paddy from the Kahama area. But now it became possible to link the company with Kahama producers and this has increased profitability because transport costs have been cut and there has been a reduction in the turn-around time for collecting paddy, from 2 months to a maximum of just 1 week after harvesting. As Hamisi Mazao says, “It is unbelievable to note that for many years we have been wasting millions in buying paddy from over 600 km away in other regions while there was a possibility of buying better paddy just within our own district. Thanks to the programme for instituting an innovation platform owned, managed and operated by ourselves”.

The company is now working with over 1,500 producers and is buying all of the paddy produced in Msalala through a Memorandum of Understanding negotiated via the innovation platform. The increase in company business has enabled it to attract a matching grant facility under MIVARF for the acquisition of a state of the art rice milling plant type SB-75, which is multifunctional and can destone, dehull, polish and grade into 1-4 grades and then package the rice. In total the plant cost TZS 86,000,000 (€32,500) and the company paid only 25% of the cost, with the rest being a grant.

The Mazao Group’s market has expanded greatly and it is now able to supply regional markets as far away as the Democratic Republic of Congo, Kenya and Rwanda, as well as Arusha, Mwanza and other parts of the Great Lakes regions in Tanzania. The company’s future is bright and the management plans to establish a network of rice supply chains in different regions, develop its own rice brand and enter into contracts with a large number of producers and a chain of supermarkets for brown rice which through the acquired plant it is now able to differentiate and package.

The functioning and success of the Msalala paddy innovation platform depended on the effective...
facilitation and coordination of MIVARF activities by SEIDA. It has also been positively influenced by the good co-operation between the programme’s beneficiary groups. Significant soft management, facilitation and people skills were required to ensure the platform succeeded. To a large extent, engaging partners is only a small part of the process.

The biggest challenge lies in getting partners who have different philosophies about work and life, who have never talked to each other, who have a mutual distrust of each other, as well as different reward pathways, to work together on a common agenda that will lead to mutual benefit.

Particular aspects of this initiative can be conceived and managed at grassroot levels by the beneficiaries themselves and with minimal support – initially and afterwards – they can be sustained beyond the support phase.

**Frederick Ogenga** works as Lead Consultant, SEIDA.  
E-mail: fredriel@gmail.com

This is one of the results of the process started by the “Capitalization of Experiences for Greater Impact in Rural Development” project, implemented by CTA, FAO and IICA and supported by IFAD.  
http://experience-capitalization.cta.int

Country: Tanzania  
Region: East Africa  
Date: June 2017  
Keywords: Value chains; cooperatives; innovation platforms; rice; marketing; 4Ps
SAGCOT – AFRICA’S SUCCESS STORY

Neema Lugangira
The Southern Agricultural Growth Corridor of Tanzania (SAGCOT) initiative, established in 2011, is a public-private partnership that aims to promote sustainable agricultural growth in the region, and engage smallholder farmers in relevant policy dialogues.

Over the past 10 years, Tanzania has become a pioneer in leveraging public-private collaboration to transform its agricultural sector. One of the best examples is the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), an initiative conceived during the World Economic Forum (WEF) in Dar-es-Salaam in 2010. SAGCOT officially started operations with a double launch, first in Dar-es-Salaam by retired Prime Minister Pinda, in January 2011, and subsequently during the WEF in Geneva by the retired Tanzanian President, Dr. Kikwete.

SAGCOT is a public-private partnership (PPP) that seeks to develop the Tanzanian agricultural sector by fostering responsible agribusiness investments in the country’s Southern Corridor. The SAGCOT Centre Ltd works as a broker and catalyst in the formation of partnerships among registered organisations to incubate initiatives that promote inclusive, sustainable and viable agricultural value chains.

Through a coordinated multi-stakeholder effort the SAGCOT partnership hopes to:

- Transform agriculture in the Southern Corridor;
- Promote sustainable resource management;
- Leverage public and private investments to spur growth;
- Promote smallholder engagement models that enable inclusivity.

SAGCOT is made up of registered partner organisations from a variety of sectors, including the government (both ministries and agencies), private sector companies, development organisations, research institutions, foundations, civil society organisations and farmers’ groups.

SAGCOT’s cluster model approach for ‘making it happen’ seeks to connect investors to smallholder out-grower schemes in the vicinity of large-scale farms throughout the Corridor. The economies of scale stimulated by the cluster model approach depend on the cooperation of farmers, agribusinesses and service providers within the partnership. Importantly, this approach enables the participation of small, medium and large-scale farmers and makes it possible for them to share the benefits that derive from the clusters.

SAGCOT has six clusters in specific locations: Ihemi, Mbarali, Kilombero, Ludewa, Rufiji and Sumbawanga. In an effort to ensure positive and measurable impact, SAGCOT has started to operationalise the Ihemi Cluster, which covers the Iringa and Njombe regions. The learnings derived from this cluster will inform operations of the next cluster, which is expected to be introduced in 2018.

In 2016, 62 companies and initiatives committed themselves to action and described the concrete investments they planned to make. The SAGCOT Centre, in consultation with other partners, selected 17 of these investment proposals for intensive implementation in the Ihemi cluster. The companies chosen are listed in the table below.
Applying a green growth approach

To ensure that the SAGCOT Investment Blueprint for accelerating agricultural development in Tanzania’s Growth Corridor meets the needs of smallholder farmers and contributes to the valuable environmental assets of the Corridor, the SAGCOT Centre instituted the SAGCOT Green Reference Group (GRG).

The SCL GRG works with partners to support sustainable agricultural intensification in the SAGCOT region by constructing a conceptual framework with decision support tools to be used by the SAGCOT partners, such as Tanzania Nature Conservancy, the Wildlife Conservation Society and the World Wildlife Fund.

In 2016, the SAGCOT Centre GRG continued promoting environmental sustainability in the six SAGCOT clusters through quarterly GRG meetings. These meetings addressed issues that affected cluster investments, including water use, relationships with local communities, land use, availability of technologies and sustainability.

The SAGCOT Centre established a partnership with the Land Use Dialogue and the International Union for the Conservation of Nature to facilitate cluster level GRG events in the SAGCOT region. The Land Use Dialogue platform, hosted by Yale University, can be used to address competing stakeholder interests in implementing a landscape approach to conservation.

Opportunities still exist for the sustainable intensification of smallholder agriculture, linking conservation to food production, developing value-chains and bioenergy production.

Policy reforms: creating an enabling environment

SAGCOT is a showcase initiative for PPPs geared towards agricultural growth. In order for SAGCOT to be able to leverage public and private investments of up to €3 billion by 2030 to spur growth, Tanzania needs to have an enabling environment that attracts such investment. Policy reform, advocacy and dialogue promoting PPPs are all critical to achieve this objective.

Since its inception in 2011, SAGCOT has facilitated policy dialogues through different avenues, including the Partnership Accountability Committee, the Policy Analysis Group and Compact. These dialogues have made concrete progress in ensuring that the government of Tanzania delivers on its policy commitments. The main objective of engagement through policy dialogue is to increase clarity and certainty with regards to policy formulation and implementation for the agricultural sector, as well as the implications that these policies have for priority regions such as SAGCOT.

In October 2016, SAGCOT established a policy department to deal with its policy advocacy and dialogue agenda. This new department has shaped SAGCOT’s policy direction and its focus on creating strategic policy partnerships in order to create a strong and robust policy network. Among the stakeholders, smallholder farmers have been singled out as critical to policy discussions related to the agricultural sector.

Key highlights

SAGCOT convened a high-level dialogue between key stakeholders in the agricultural sector and the Vice President of Tanzania during the Grow Africa Investment Forum in Kigali in May 2016.

SAGCOT championed the Dutch-Potato Mission to the Corridor region, which resulted in a memorandum of understanding (MOU) being signed between the governments of Tanzania and The Netherlands in 2016. The MOU aims to develop the potato value chain in Tanzania by increasing the capacity of the Tanzanian institutions in the region that are involved in this sub-sector.
SAGCOT’s policy direction is guided by four main strategies:

1. Foster policy research, analysis and dissemination on the priority policy constraints from the cluster
2. Establish strategic policy partnerships with key stakeholders at regional and national levels;
3. Promote policy advocacy with key stakeholders at regional and national levels; and
4. Promote infrastructure development that supports agribusiness and smallholder farmers in the region.

SAGCOT has adopted IFAD’s Public Private Producer Partnership (4Ps) approach, which means that its policy calls for the inclusion of producers in partnership decision-making. SAGCOT needs to start actively engaging the 4th P – producers – and bring them closer to the partnership table because they play a critical role in further linkages with smallholder farmers.

Recognising the importance of smallholder farmers’ participation in policy dialogue, SAGCOT has started to establish strategic policy partnerships that will pave the way for their participation. SAGCOT will learn from similar regional initiatives, like the EU-funded programme Enhancing Opportunities of Eastern Africa Farmers Organisations, in how to establish effective policy dialogue for food security, governance and the improvement of rural livelihoods.

Through its Policy Department SAGCOT will partner with smallholder farmer organisations within the region, including National Networks of Farmers’ Groups in Tanzania and the Kenya National Farmers’ Federation. SAGCOT also aims to assess the current capacity of smallholder farmers to understand policy matters and their ability to engage in robust policy dialogues. This will lead to an understanding of the gaps that need to be bridged through strategic policy partnerships.

SAGCOT believes that smallholder farmers are key stakeholders and that it is important to ensure their understanding of policy matters if they are to meaningfully participate in policy dialogues. In fact,

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**Results in Ihemi**

Mussa has been cultivating maize on his farm since 2014. However, in the season 2015/16 he allocated a fifth of his 2 ha farm to cultivating tomato. The timing coincided with the establishment of Darsh tomato processing industries in Iringa, which provided an extra market in addition to the region’s existing fresh tomato market. With an assured market for his produce, Mussa is now earning increased income from his land through tomato farming. He says that “farming is my passion and I have discovered that the tomato value chain is my preferred choice and gateway to transforming my life and that of my community in Ilula.”

Kayusi Musigwa, an emerging Tanzanian smallholder dairy farmer, was encouraged to venture into the dairy business as a result of the establishment of an ASAS milk collection centre near his 4 ha farm in 2012. This led him to buy two high breeding heifers to start his dairy farm and his stock has since grown from two to eight cows, producing about 65 l of milk daily. Now, he says that “in the dairy business, the most important aspect is market assurance, which ASAS guarantees”. He is very grateful to the SAGCOT initiative for making this possible.

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Mr Kayusi Musigwa
when empowered, SAGCOT believes smallholder farmers can drive the agricultural policy and legislative agenda in Tanzania and beyond.

To achieve greater smallholder farmer involvement SAGCOT will develop plans to enhance their participation in policy dialogues. It will:

1. Conduct a situational analysis of smallholder farmers’ current understanding of policy and legislation matters within the agricultural sector
2. Develop a training programme for smallholder farmers to enhance their policy and legislative understanding, and build their capacities to contribute to policy dialogue
3. Convene policy meetings between key stakeholder groups and smallholder farmers

In addition to the above, SAGCOT is already in the process of entering into strategic policy partnerships with key regulators within the agricultural sector. Among other activities, these policy partnerships will convene joint meetings aimed at raising the awareness of smallholder farmers about different policies, regulations and industry standards in the SAGCOT region, starting with the Ihemi cluster.

**Key lessons**

To ensure key objectives are realised, such as sustainable smallholder commercialisation, green growth and inclusive value chain development, the SAGCOT initiative aims to create focused partnerships and increase the efficiency of its brokerage through “priority value chains and lead partners”.

Continuous dialogue is crucial in resolving policy constraints. The creation of an enabling environment for investments in the region will need a continuous approach to encourage dialogue amongst partners, with conversations broadened at all stages to include actors such as farmers’ associations, civil society, local companies, financial institutions, and relevant Ministries, as well as other stakeholders in the agriculture sector.

Sustainable market solutions motivate smallholder production. To sustain and reinforce smallholder production, and thereby support market development, it is important to clarify quality standards and requirements early on, and secure partnerships with private companies to guarantee a market for farmer produce.

Finding the right partners for the innovative solutions in the clusters required SAGCOT to work with different models, depending on the cluster and the partners. All clusters face challenges in creating an enabling environment and require partners, such as aggregators and members of civil society organisations, to support their businesses. SAGCOT has a best practice model for joint monitoring visits to resolve bottlenecks and encourage the sharing of best practices from elsewhere between its partners.

**Neema Lugangira** works as Head of Policy at the SAGCOT Centre ltd.

_E-mail: n.lugangira@sagcot.com_

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Jorge Chavez-Tafur

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PUBLIC, PRIVATE, PRODUCER PARTNERSHIPS IN EAST AFRICA

CONTACT US

CTA
PO Box 380
6700 AJ Wageningen
The Netherlands
T +31 317 467100
F +31 317 460067
E cta@cta.int

CTApage
CTAflash

CONTACT US

CTA
PO Box 380
6700 AJ Wageningen
The Netherlands
T +31 317 467100
F +31 317 460067
E cta@cta.int

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