

## Background

JOLISAA (Joint Learning in Innovation Systems in African Agriculture) is a European Union funded research project that is coordinated by the French research organisation, CIRAD, and operates in South Africa, Kenya and Benin. In South Africa, the project is hosted by the Department of Agriculture, Extension and Rural Development at the University of Pretoria. The JOLISAA project aims to increase understanding of multi-stakeholder innovation processes and recognises the benefit of combining different forms of knowledge, including local knowledge.

## Looking back over the last year

The JOLISAA project in South Africa started in earnest with a **National Workshop** in Pretoria in November 2010. Some cases of multi-stakeholder innovation processes were presented. This helped participants reach a common understanding of the project and innovation concepts.. Additional cases were also identified.

In June 2011 we welcomed a new UP staff member, Hlami Ngwenya, to the JOLISAA-SA team and said goodbye to Cerkia Bramley who assisted very efficiently with documenting the National Workshop in 2010.

From the range of different cases explored, 11 were selected for **documentation of case summaries** and for inclusion in **an inventory**. These were cases that met the criteria set by the International JOLISAA team. These ten cases are:

## Cases in the inventory

- Soil fertility management. This innovation, found in Vhembe District of Limpopo Province, involves a process of increasing farmers' adaptive capacity to manage natural resources by combining local and external knowledge

about soil fertility. At the same time, farmers' organizational capacities were strengthened to increase their bargaining power. Bulk buying of inputs was initiated to allow them to benefit from economies of scale. Various stakeholders contributed their knowledge, with smallholder farmers at the centre.

- Developing a low-cost protein supplement for chicks. In this innovation process, smallholder farmers from Msinga in KZN, with support from the NGO Mdukatshani Rural Development Trust (MRDT) adapted an external idea introduced by a poultry specialist to suit their context by using their own knowledge and resources. The main objective was to improve the diets of chicks during the winter. This was achieved by taking advantage of old, unhatched eggs, mixed with cooked maize meal (*phuthu*) and sunflower seed.



MaMchunu Dlamini grinding up cooked eggs.

- Community-driven maize seed production. This case documents the evolution of a community-driven system of producing maize seed that was suited to the local condition. It happened in response to smallholder farmers in Limpopo Province expressing the challenge of low maize yields. It shows how more than 10 different categories of actors were mobilised to create a common vision,

harmonise their approaches and work together in response to the needs of the farmers.

- Producing and marketing a new cash crop. This case involves a group of smallholder farmers from Potshini in KZN who wanted to diversify their farming activities and start producing a new cash crop. Through discussions with a neighbouring commercial farmer, one of the farmers identified a market opportunity for cherry peppers. The innovation process, supported by Farmer Support Group (FSG), has involved both technical innovation (the introduction of a new crop) as well as institutional innovation (development of a marketing relationship).
- Developing an irrigation management tool. Researchers at the University of Pretoria and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia, drawing on knowledge gained through other irrigation-related programmes working with farmers, developed a simple irrigation-scheduling tool called a wetting front detector. They then fine-tuned the tool (and how it is used) through interaction with commercial and smallholder farmers, testing a prototype prior to upscaling and commercialisation.



**Smallholders being introduced to the tool.**

- Bulk buying of fertilizer. Smallholder farmers in Okhahlamba District of KwaZulu-Natal (KZN), who have been part of the FAIR (Farmer Access to Innovation Resources) project

piloting of farmer-managed funds to support local innovation processes, have developed a system for buying fertilizer in bulk. They are part of a savings group and have used this as a mechanism to fund the purchase. This process has been supported by FSG and SaveAct.

- Developing and adapting infield water-harvesting techniques. In this initiative, funded by the Water Research Commission (WRC) and implemented by the Agricultural Research Council (ARC) and the Free State Department of Agriculture, smallholder farmers became active partners in the process of developing water harvesting technologies. They adapted the techniques for use with vegetables instead of just field crops, and adapted the specific technologies used to gather and store water.
- Developing a winter-feed supplementation option. Researchers with the KZN Department of Agriculture, Environmental Affairs and Rural Development worked with a farmer in Impendle to find a way to improve the intake of chopped maize stover that he fed to his cattle in winter. This led to the development of a low-cost option for locally available winter-feed supplementation. Livestock owners in Msinga and the non-governmental organisation (NGO) that supports them are now testing this option as a mechanism for creating agribusiness opportunities for youth as well as improving livestock productivity.
- Egg-layer production cooperative. In this self-initiated innovation process in Mahonisi Village in Limpopo Province, a group of 12 unemployed youth turned into a viable cooperative. Concerned with their lack of jobs, the group sought support from the local extension officer from Limpopo Department of Agriculture, to start a small egg-production project, supplying local markets. This evolved into a multi-enterprise cooperative supplying

four big supermarkets (including Pick n Pay) in a radius of 80km.

- Use of local knowledge in developing a mosquito repellent. The traditional healers in the Giyani area have always used some indigenous plants for different purposes. Through a self-organized traditional healers' committee, they formed a partnership with researchers from Council for Scientific and Industrial Research (CSIR) to develop and commercialise a mosquito repellent made from an indigenous plant that has properties similar to citronella. This initiative was funded by the Department of Science and Technology and has yielded positive results.
- Farmer-extension-research joint learning for development of a biopesticide. The vegetable project farmers in the Diphagane village (Limpopo Province) could not afford the expensive chemicals, and therefore tried out a combination of plants to develop their own recipes for pest control (biopesticides). Building on farmers' knowledge, the local extension officer in collaboration with the Researchers from LDA established a joint learning process. The aim was to conduct formal experiments to test the performance of this biopesticide on different crops, and develop a market for it.

#### Next steps

At a meeting of the JOLISAA-SA coordinating team, and with input from some of the international partners, three cases were selected for the next phase of the project, known as the **collaborative case assessment (CCA)**, namely:

- The bulk buying case from KwaZulu-Natal

- The soil fertility management case from Limpopo
- The infield water-harvesting case from Free State.

As a first step in initiating the CCA process, a **capacity-building workshop** will take place in Thoyandou, Limpopo Province, in late January 2012. The aim is to reach a common understanding of the joint process to be followed and the methodologies and tools to be used. The CCA is meant to allow all involved to gain deeper insight into how the innovations developed. National and international JOLISAA team members and stakeholders of the three cases will join the workshop.

**The CCA process** will run from February to June 2012 and will use a range of participatory tools to understand how the innovation process has unfolded and the roles that different stakeholders have played in the process.

At the end of the CCA, lessons will be drawn across the three cases as well as across the three countries. The findings will be shared at a **final national workshop** that is likely to take place in November 2012.

#### JOLISAA outcomes

The objective of JOLISAA is to learn how processes involving technical, social and institutional innovation can be effectively supported and promoted in order to improve agricultural production and rural livelihoods. Key lessons from the learning process will be shared through the final workshop and through other avenues such as project reports, the website ([www.jolisaa.net](http://www.jolisaa.net)), electronic newsletters and policy briefs.

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For more information, please contact one of the members of the coordinating team:

Joe Stevens – University of Pretoria – [joe.stevens@up.ac.za](mailto:joe.stevens@up.ac.za)

Brigid Letty – Institute of Natural Resources – [bletty@inr.org.za](mailto:bletty@inr.org.za) / 033 3460 796

JOLISAA website  
[www.jolisaa.net](http://www.jolisaa.net)