

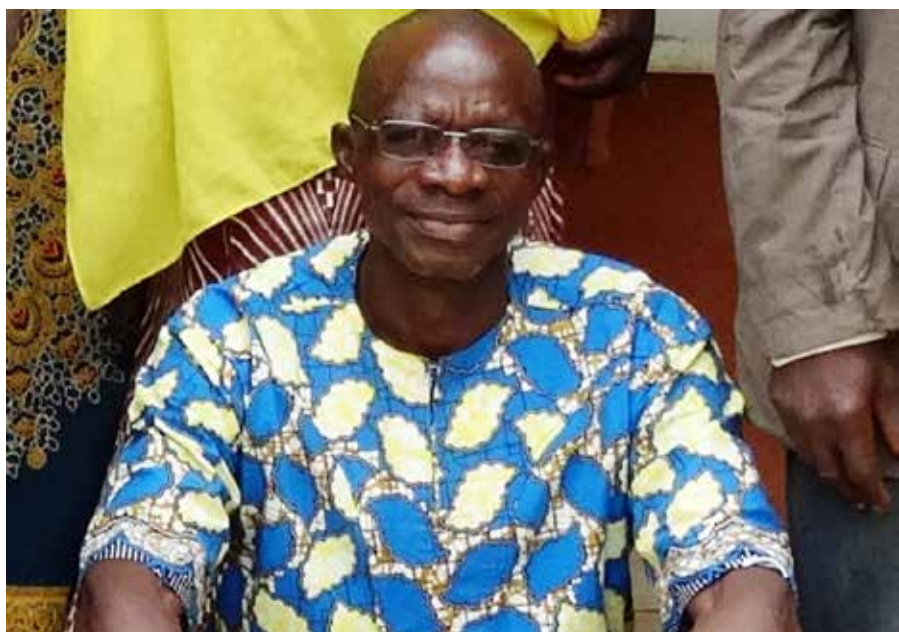
Competition for farmer innovators in managing water in Burkina Faso

In Burkina Faso in West Africa, climate change poses a major challenge to water management in rainfed farming. Trends show years of drought alternating with years of high rainfall, together with a significant rise in temperatures. Faced with this situation, small-scale farmers are adapting in different ways, but these local solutions are little known and not taken into account in national efforts to deal with climate change. The Prolinnova Country Platform (CP) in Burkina Faso, under the aegis of the Prolinnova international network (www.prolinnova.net), therefore started a project in 2020 to promote local innovation in water management in family farming in the Sahel (known by its French acronym Proli-GEAFaSa), with funding from Misereor, Germany.



Ferdinand Bassolé in his tomato plot.

Credit: Augustin Ouédraogo



Basolé Bagnomon, a winning farmer innovator.

Credit: Augustin Ouédraogo

This project seeks to build on local knowledge and the endogenous development of practices and technologies by small-scale farmers to contribute to better management of water in agriculture in order to help rural communities respond better to the challenges of climate change and other new issues they face. The project aims to strengthen the innovative capacities of farmers, particularly women, women's groups and youth, in collecting, conserving, storing and efficiently allocating water to improve food and nutrition security and local community resilience. It also seeks to promote participatory innovation development (PID) in this field, involving other actors in agricultural research and development (ARD).

In Burkina Faso, the project activities are facilitated by Réseau MARP-Burkina, one of Prolinnova's three host organisations in the country, and carried out in the Kirsi Commune in the North and the Réo Commune in the Centre-West Region. One project activity involved organising a competition to recognise local innovation.

Why a competition and who was involved?

The competition was intended to encourage innovative farmers, but also to influence decision-makers in ARD to support local innovation processes. The idea was to build the capacity of local stakeholders in analysing and evaluating local innovation in farming practices and to advocate for recognition of endogenous development initiatives. The local stakeholders, including farmers, learned to identify, characterise and document local innovations in managing water for small-scale rainfed farming.

The organisation of the competition, which covered both Réo and Kirsi Communes, involved numerous actors with specific but complementary roles:

- **Local Multistakeholder Platforms (MSPs)**, made up of representatives of innovative farmers, local development organisations and technical agricultural services in each Commune, mobilised people and coordinated activities through communication with farmer



Total soil cover in Dianda Souleymane's banana plot.

Credit: Augustin Ouédraogo



Farmer exchange visit in Dianda Souleymane's farm.

Credit: Augustin Ouédraogo

innovators; the MSP members had been well trained in concepts and processes of local innovation and PID.

- **Competition Support Team**, formed by the project team and people from the CP's partner organisations *Diobass Ecologie Sociétés Burkina*, World Neighbors Burkina and the National Institute of Environment and Agricultural Research (French acronym INERA), defined the competition's objectives, designed the methodology, defined the criteria in line with Prolinnova principles, launched the competition, led the process of characterising and documenting the innovations, and organised the award-giving.
- **Prolinnova–Burkina National Steering Committee (NSC)**, the CP's governance body, validated the methodology, assessed the relevance of the local innovations, identified the top innovators and gave awards to the winners.

Awarding farmer excellence

First, the project team held a joint meeting of the two MSPs, the support team and the NSC to define the principles and procedure of the competition and to finalise the forms for identifying and characterising local innovations. Then the project team and

the MSPs launched the competition in the presence of the heads of the community radio stations, which broadcast radio spots in the two sites. Posters were also put up in public places such as markets, churches and mosques. A total of 66 innovative farmers applied for the competition: 14 women and 52 men.

Small teams with some members of the MSPs and the project team reviewed the applications by visiting the farms, where they took photos and added information to the forms describing the local innovations. They excluded three applications because information was incomplete and, from the remaining 63, pre-selected 48 local innovations to submit to the NSC. This selection process was also an opportunity for all involved to learn more about valuing local innovations.

The NSC examined the local innovations on the basis of the agreed criteria, which included the agricultural and environmental performance of the innovation, its durability, the possibility to apply and possibly adapt it in different contexts (for wider application both within the farm and by other farmers) and biological interactions such as biological regulation of agricultural pests. The NSC members entered their scores for each criterion into a grid. They regarded 40 of the local innovations (11 by women) to be particularly

relevant for improving water management in farming in the face of climate change: 26 (7 by women) in Réo and 14 (4 by women) in Kirsi.

The award ceremony during “Farmer Excellence Days” held in Ouagadougou, the capital of Burkina Faso, was attended by farmer innovators; other MSP members; technical services for crops, livestock and the environment; local authorities and representatives of local civil society organisations from the two communes. One day was dedicated to each commune and featured the presentation of the winners’ innovations and the awarding of prizes and certificates to the top farmer innovators.

The top two local innovations in Réo were a micro-irrigation system on ridges for tomato production (developed by Ferdinand Bassolé) and intercropping cowpea on bunds combined with *zaï*, ie small pits in which the crops are sown (developed by Bassolé Bagnomon). The top innovations in Kirsi were banana production using a combination of cover cropping, organic mulch and water-trapping techniques (developed by Dianda Souleymane) and fertilisation and water conservation using rice stalks for mulching (developed by Dianda Soumaila). In addition, Ms Philomène Kinda was given an award for her innovation in producing aubergines in furrows (see box).

These Farmer Excellence Days were

moments of pride for the farmer innovators and motivated them to work with other actors in ARD who had recognised the farmers' creativity. The event also offered opportunity for mutual learning between the participating farmers from the two communes.

Stimulating the dynamics of local innovation

The competition helped identify and stimulate the dynamics of local innovation. The various innovations showcased are likely to help meet the challenges of natural resource degradation, including loss of biodiversity, resulting from changes in climate and water regimes. The recognition given to the innovative farmers boosted their self-confidence. As Ernest Bassolé, an innovative farmer in Réo, put it: "We never thought that the innovations we are developing on our farms could one day be appreciated and supported in this way. This is very reassuring for us."

The competition also helped strengthen the partnership between the farmer innovators, researchers and the decentralised technical services for crops, livestock and the environment, as well as the nongovernmental organisations that facilitated the process. The participation of local authorities and other local stakeholders raised their awareness of the relevance of local innovation and should stimulate them to advocate for integrating participatory innovation processes into local policies and initiatives aimed at agricultural development and even national development in Burkina Faso.

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Woman farmer's innovation: growing aubergines in furrows

In the local-innovation competition, Philomène Kinda – a farmer from Réo Commune – was awarded a prize for a new way she developed to grow aubergines in furrows. She did this because she had struggled with shortage of moisture and low yields when she used the normal techniques of planting the seedlings in the open field or on raised flat beds.

Her innovation involves transplanting the aubergines seedlings in furrows about 20 cm deep and 10 cm wide and spaced about 25–30 cm apart. The furrows serve as irrigation channels and also store water so that more moisture is kept in the soil for the aubergine plants. She uses leaves of the neem tree as mulch to reduce water evaporation. When the plants start to grow, they lean on the ridge, which acts as a support. This ensures that the fruit never comes into contact with water or wet soil.

She initially irrigates the aubergines three times a week but daily after fruiting starts. This innovation allows Philomène to make very precise localised inputs of water and fertiliser so that fewer nutrients are lost from the soil and less fertiliser is needed. The overall result of her innovation is better crop productivity under drier conditions.



Philomène Kinda receiving her award at the ceremony in Ouagadougou.

Credit: Augustin Ouédraogo



Philomène Kinda's award-winning innovation in growing aubergines.

Credit: Augustin Ouédraogo