
Sustainable agriculture: A story about making changes for a better future

When it comes to growing crops and protecting the environment, Hajji Abbas Nsereko is on top of things - in more ways than one. The farmer lives in the undulating hills of Mbaliga village, 75 kilometres North West of Kampala City. This is one of the country's poorest regions which were badly affected by the 1980s Civil war whose effect is still evident among the population today. In spite of the bitter past, Nsereko's family have been active participants in a bold, 10 year old experiment to practice sustainable agriculture and conserve natural resources and to help community members improve their standard of living.

His home overlooks a vast green U-shaped landscape, which, though spectacular, bore scars of deforestation, poorly managed gardens and erosion 10 years ago. But following a fervent call from Rural Community In Development (RUCID), Nsereko agreed to use integrated farming methods to protect the environment. In effect, he now acts as the first line of defense for the remaining natural trees and water springs in the village and protects hillside soils from erosion. In return, RUCID provides technical advice, training, and information about agricultural production, processing, marketing, land management, and community organization.

Nsereko's farm is a showcase for its organization and the wide array of crops that can be grown on a farm without causing a decline in its natural resources. He



Madina Nsereko plucks oranges for sale from her orchard managed using organic pesticides and manure

has set aside part of his land to protect natural trees. The remaining hectares provide enough food both for his extended family of 15 and for the local market. Nsereko's crops include beans, maize, coffee, sugarcane, cassava, sweet peas, and, his pride and joy oranges and mangoes. His cows provide milk for the family and for sale. In addition, his wife raises chickens and goats, thanks to the advice from RUCID on the virtues of family members working together.

In the centre of the farm, they raise native breed of goats and fresian cattle which are not given artificial feed or supplements, but eat grass, weeds and vegetables from the farm. Chickens provide eggs and meat for the family and some eggs for sale. The chicken eat the weeds from the garden, vegetable waste and leftover food. The main crop is bananas, which occupies about two-thirds of the land. Another third has an orchard and coffee. The trees on the farm, mostly mango, oranges,

banana and papaya, are grown in the centre around the animals and poultry. He also grows many kinds of local vegetables as well as medicinal herbs. On the southern edge of the farm are mango trees that serve as wind breakers. Such approaches, many of today's farmers like Nsereko take as they grapple with tough agricultural issues, have come to be known as sustainable agriculture (SA), being championed by RUCID, a Ugandan Non-Government Organization based in Lubanja village, Mityana town.

Throughout its 15 year history, RUCID has consistently advocated for alternative methods to improve agriculture, land, lives and the health of farmers who farm with an eye toward sustainability. To reach its goal, RUCID works with 1000 farmers spread out in the districts of Mityana, Mubende and Kiboga supporting them with knowledge in sustainable agriculture technologies, organic farming and building local community capacity to plan and execute projects for rural development. Other activities include trainings in food processing, conservation, storage, marketing, rural health promotion including human resource development/ capacity building.

With support from Misereor totalling 200,000 Euros for 3 years (2008-2011), RUCID has been at the forefront of organic agriculture and its activities clearly exhibit a paradigm shift in agricultural practice as events regarding global food production have made it clear that the current system of agriculture is not capable of meeting farmer's needs in a sustainable manner. Its main target groups are the small household farmers, agriculture extension workers, rural communities and the school community including primary/secondary school pupils and their teachers.



Representatives of PELUM-Uganda member organizations, on a study tour, are shown a section of the farm where endangered plant species are grown

According to the Executive Director, Mr. Sam Nyanzi, RUCID's approach to sustainable development, encourages farmers to change back from conventional monoculture, where one clears everything on the land and then plants a single crop. Now, farmers are going back to multi-cropping where they plant all the crops together. Just as in nature there are bushes growing next to tall trees and little plants, they grow different things together such as maize groundnuts and millet.

"We are also returning to using compost and organic fertilizers, as we used to do. We are going back to using indigenous seeds, the ones that belong in the area instead of buying them from the multinational companies."

This is what we used to do before the advent of conventional agricultural methods” said Nyanzi.

RUCID innovations

Like many farmers around the world, the farmers under RUCID are using sustainable farming methods to conserve and rehabilitate their land while increasing farm productivity and economic viability. For these farmers, ‘sustainable agriculture’ is a new name for an old idea.

“Western-style education had taught us that the old ways are ‘primitive’, but we are again learning their wisdom and value. We are listening to the knowledge of the old people. Our elderly farmers know which crops we should plant together to enhance the soil, to control the pests, to keep the worms away from the seeds in the ground, to keep the birds off the crops,” added Mr. Elisha Sebaduka, the organizations Agricultural Advisor.

On its part, RUCID promotes SA technologies as practiced on its trial farm and those of its members but encourages farmers to go further and improve on the technologies. For example, Sebaduka says RUCID used to promote the preparation of compost in heaps and pits in one place but this was found to be so tiring as the farmers complained that they have to walk several distances to collect the compost. But now, the farmers use less effort after they came up with a new idea of heaping the compost in various places of the garden where it is needed rather than in one place.

RUCID’s trial farm spread over 7 acres gives a vivid picture of the endeavours the organization is taking as it turns out to be a centre for learning. On the farm, are a variety of tree and plant species that are being grown to protect them from



Trainee Organic Agriculture Inspectors under Uganda Organic Certification Ltd (UgoCert) on an inspection mission of RUCID Farm

extinction given that many of them were being wantonly destroyed in the wilderness and on farms in disregard of conservation concerns. These include *Calliandra*, the deep rooting and leguminous bee fodder tree, *hibiscus rosette* a herbal tea which is used to treat anemic cases especially in pregnant women, *Rosemary* and *Lavender* for perfumes and many others.

Also on the farm is another unique innovation. Cotton grown on a nursery bed-like raised platform designed to protect it from destruction by livestock or poultry. The platform is made using bricks, wooden poles acting as props and timber placed across the bricks to support the soil. This idea of growing cotton is intended to give an opportunity to school going children to see how cotton grows.

As RUCID prepares to transform part of its trial farm into an agro-tourism and eco-tourism center, plans are underway to preserve its pristine nature as another innovation to protect endangered plant species for conservation and educational purposes. Besides helping to educate the visitor, it will provide funds for conservation and directly benefit the economic development of the local community.

As part of its activities, RUCID also carries out an outreach and training programme where it advocates for sustainable farming practices to people already involved in agriculture or contemplating involvement in agriculture. Here, prospective or already practicing farmers are paid a visit on their farms or as a group and encouraged to adopt agricultural practices that provide them with sustainable food security and household income while preserving the environment as a community.



A student tends to cotton grown for learning purposes on a raised platform at the RUCID Trial Farm.

The outreach programme runs alongside an extensive residential training programme in organic farming operating on a semester system. The success of this programme is pegged on the exposure given by PELUM to R U C I D



An example of a water drainage and retention ditch at RUCID's Farm. Such technologies help plants to easily absorb abundantly flowing water from rainfall

activities that has enabled 16 students from the Kenya Institute of Organic Farming to study at RUCID through a 2 year exchange programme. At the moment, a total of 23 students from Uganda and Kenya including another from Japan sponsored by the Japanese International Co-operation Agency (JICA) are undergoing practical training in organic agriculture at the RUCID farm.

“Recently we realized that young people need formal training in organic farming principles and practices. This could become their career in this competitive job market besides promoting improvement of agricultural practices in general,” said Ms Sarah Nantume, an Extension Worker.