

Increasing Food Production for Smallholder Farmers



Testing Productive Sanitation Systems in Aguié, Niger

The need for increased crop yields in Africa is driving farmers' demand for fertiliser. Productive sanitation systems (PSS), which safely recycle human excreta into fertilisers, can play a key role in meeting this demand. More recently, IFAD-funded (International Fund for Agricultural Development) productive sanitation initiatives have been pursued in collaboration with other actors at a household/community level. Testing of PSS is done in various countries, including Niger, India, Madagascar, and Nicaragua. The aim is to demonstrate that agricultural productivity can be a driver for sanitation and that PSS can be mainstreamed in agricultural production for food security.



Yellow revolution

A “yellow revolution” is currently taking place in Aguié Province, Southern Niger. Participative tests in eight villages demonstrate the effects of using urine as a fertiliser to increase crops. As a consequence of positive results in regard to different vegetables, the demand is high for toilets and urinals that make the collection of the “new fertiliser” possible. Further participative tests are now being carried out on sorghum and millet.



Agricultural extension services

During the twelve-month pilot project CREPA together with PPILDA (an IFAD-funded rural development project in Aguié) and SEI aim to demonstrate that a productive sanitation system can be effective, acceptable to the community and individuals and possible to disseminate and implement at scale. The agricultural extension officers play a central role in conducting the demonstration tests and training the villagers in recycling. Within the framework of the project, 200 toilets (with a subsidy of approximately USD45 per unit) and 700 urinals (with a subsidy of approximately USD13 per unit) have been built to collect “fertilisers”. Several studies and the development of tools and guidelines and a communications platform complement the implementation part of the project to facilitate replication.



Family produces approximately USD 80 worth of fertiliser per year

IFAD is the main funder of the Aguié project with a mission to improve livelihoods for smallholder farmers. If the results are satisfactory, PPILDA will introduce the approach in more than 250 villages in the Aguié Province. Additionally, there is a considerable up-take potential in other IFAD-funded projects for smallholder farmers.

Interestingly, in Aguié Province, the annual quantity of nutrients in excreta from an average family of nine is roughly the equivalent to one bag of urea (50kg) and one bag of NPK (50 kg). This represents a value of USD 80 on the local market and is about twice the amount an average family can afford to buy in a year. It is becoming clear that productive sanitation can help to optimize the use of this resource, while improving human health in the communities. Thus, there are indications that agricultural productivity can be a driver for sanitation in rural communities.

Community voices speak

Milli village

Hamsa Issaka, test farmer: With Takin Ruwa (hygienized urine), I see a faster maturity of the plants. They also give more flowers and fruits. I don't see any problems with Takin Ruwa!

Harouna Adam, test farmer: I find fewer parasite attacks if I have used the Takin Ruwa, and I didn't spend money to get it! We are very happy that the project has made us discover Takin Ruwa!

Manja village

Hadidja Saley, beneficiary and urinal owner: Even if there wasn't any use in agriculture, we women see other benefits. Before we had the urinals there was bad odour in the shower area, but now with the urinals the odour is gone. There is less stagnation of liquids in the shower and on the street outside. The shower is so clean I could even have dinner in there!

Maazou Sanda, CDA (Chief of Gazaoua Agriculture District): During the first workshop when the project was introduced to the authorities my reaction was: Can this message really pass in the villages? According to Islam, urine and faeces are najassa (impure). Fortunately the marabout (religious leader) was there as well and he himself said that we all know the good yields on the fields closest to the village, where people go to relieve themselves.

The fact of referring to these fields is a way to demystify the approach. The results now speak for themselves. For me it's clear. The poor soils, the cost of chemical fertilisers and the distance you have to travel to get these fertilisers are all factors that make the population open to anything that can help them to produce more – and with the productive sanitation approach you also have the sanitation part.

Maifarou village

Hamsa Ibrahim, latrine owner: It is now two months since I have my latrine and I am very happy with it. It is the first latrine I've had. I prefer the dry toilet, because it is faster to sanitize the faeces and I will be able to use the compost soon.

Moussa Ibrahim, village chief: At first people were doubtful. Above all, the tests have convinced us. I think that all farmers who see the method should be interested in this!

Dan Bidé village

Tchima, test farmer: We have welcomed the idea and we will do our best to have good results. We are many people in my household so we can fill up one jerry can in two days! The advantage is also that there is less pollution. According to Islam it is not good to have contact with urine and our urinals helps, because there is no more urine that pollutes the shower area. You should know that the project has a strong support from the women in the village!

More information on the project is available at:
www.ecosanres.org/aguie

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