

Roles and regulations

Since the 1980s, some 6 million hectares of agriculture land in the Sahel have been covered with trees. Yet, this area could be much larger. The support provided to the rural areas of most Sahelian countries depends on public funding and on the contributions of international donor agencies, so the number of projects, or the number of farmers that can be involved, is limited. Since it took 30 years to cover 6 million hectares, many argue that it might take too long to cover the entire Sahel. Does scaling up depend only on the national and international funds for rural development? Or would there be other ways of reaching out and involving many other farmers?

Frank van Schoubroeck and Mamadou Fall

Mr Dame Diop is a farmer in the village of Bayen, near Thiès, in Senegal. We met him last October in Ouagadougou, Burkina Faso, at an international conference on Farmer-Managed Natural Regeneration, an increasingly popular

technique for increasing and managing the presence of trees on agricultural land. Mr Diop talks in French, slowly but articulately. *“When I was young, there was lots of forest in our village. But in the 1970s, our country joined many of the so-called Green Revolution programmes. The national government instructed farmers to intensify traditional shifting cultivation practices, clear forest and start growing groundnuts. In return we received subsidised fertilizer and seeds. We grew groundnuts to sell and bought food to eat ourselves. In the beginning all went well. But then there were severe droughts, the government’s policies changed and fertilizer subsidies stopped. We were left with empty stomachs. On 12 December, 1992, some people from a project visited our village, and since then the project has helped us to restore trees on 57 hectares of land. These trees appeared to do miracles. They grew quite big in five to ten years, and we grow grains and horticultural crops between them. Crop production is stable and, even in dryer years, none of us needs to buy food from outside. In most years we can sell crops on the market in Dakar.”* Mr Diop’s main interest is in finding a way that more farmers in his community can benefit from this approach.

Yields and taxes Mr Ibra Diakhithé, President of the Rural Council of Niakhene, 100 km north of Dakar, thinks that people can earn a living through fighting desertification. With an annual rainfall of 200 to 300 mm, Niakhene is where the Sahel and the Sahara meet. *“During the drought of the 1970s, at least one third of our people migrated, and whole villages were abandoned. This could happen again very easily as a result of global warming. But we are working hard to avoid it.”* Mr Diakhithé gave a stubborn smile. *“A few years ago the government handed over environmental management to the local government. We are happy with this mandate, even though we only have small budgets at our disposal. With the little money available for our Rural Council, I prioritised actions that would help people make money.”*



Mr Assoumane discusses the role of foresters with farmers in Rouda Adoua, Niger. Photo: Frank van Schoubroeck

For example, when I started as President in 2002, 42 out of the 62 villages did not have running water. I managed to get running water for all villages. This helped to reduce the workloads of women, so now they have more time to take care of their fields and their trees. Trees on the farms help farmers to create protected horticultural gardens, that are now equipped with drip irrigation. In this way, people have business opportunities, and do not need to move away in search of work. The greener the village is, the more people can produce.” This is undoubtedly a successful story, but does it help the Rural Council? “You might think that more business would mean more revenues for the local government. Unfortunately this is not the case. We only levy a ‘solidarity tax’ of 1,000 francs per person per year (about € 1.50); so more local businesses does not mean that we get higher tax revenues. We still depend on the support of foreign-funded NGOs and programmes.”

Yet a local tax on, for example, agroforestry products might be a good idea. Farmers and researchers have shown the many benefits of trees on agricultural land in the Sahel. Trees have deeper root systems than annual crops, and some species can withstand droughts remarkably well. Trees also help rainwater from short heavy showers to penetrate

deeper into the soil, helping ensure that crops make it to the end of the rainy season.

Some researchers claim that there should no more than 25 to 40 trees per hectare; many farmers disagree. Mr Ali Meyno, a farmer in Aguié, in Niger, grows up to 150 trees per hectare. *“I combine tree growing with micro-dosing fertilizer. This gives me cereal yields of up to four tons – and I also sell fuel and construction wood on the rural market. I also rent barren land for a very low price. The first thing I do is start bringing the trees back and improving the soil, which immediately doubles yields. The following years I manage the tree coverage on the land and my yields are even higher. Thus I make a good profit. And after three years I hand back the restored land to the owner.”*

Mr Ali and members of his community benefit from strict local government procedures that regulate land tenure. People who lend or rent land are sure they will get it back after the agreed period. And farmers who invest time and resources in regenerating trees retain the harvesting rights once these trees yield wood. As a result, Aguié has a lively wood market, from where trucks leave every day to towns in Nigeria. The mayor, Ousmane Boubé, is happy with the financial results. *“The market committee decides who should pay taxes,*

and how much. We share the tax money between the state, the local government and the technical services. These services support farmers by running a capacity-building programme on agroforestry.” This is a virtuous circle: the more people produce, the more revenues the local government gets, which allows for more and better capacity-building programmes, and also for better land registers.

Different roles, different opinions

Why is it so difficult to replicate this success? Scientists such as Antoine Kalinganire, at the World Agroforestry Centre in Nairobi, recognise at least one reason. “Foresters should leave the farmers alone!” he exclaims with a big laugh. “Let the foresters manage the forests, and not the farms. Farmers treat the trees on their land like a regular crop. They plant, maintain, cut and sell the produce, following their socio-economic logic. When foresters interfere with the growing of trees on farms – which happens all over Africa – they cannot establish fully productive systems. Foresters oblige farmers to apply for permits to fell a tree, even when tree densities are high. The result is that farmers cannot manage their trees economically. No wonder they clear trees and invest exclusively in annual crops – and miss part of the steady income they could have had.”

Mr Maizombou Assoumane, a forest guard from Doutchi, Niger, does not agree: “We only protect trees so that outsiders or irrational farmers do not cut them down”. This misunderstanding of the role of foresters seems to be backed by stories such as the one told by World Vision’s Martin Nzale: farmers in a village in Kaffrine, Senegal, were happy with the effect of the trees on their soils, which provided shade and fire wood. Then last year this changed: “A rumour went around that fields with high tree density would be taken back by the forestry service. Many people were afraid

and had their family members cut down the trees in order not to lose their land. These trees could have served as their pension! And now they are all gone.”

A group of farmers we met in Rouda Adoua, a village in Niger, also regarded the forester as a policeman. Asked what they would do if the foresters left their region, they immediately said that “we would cut down all the trees!”... Then one of them timidly contradicted the group: “Maybe not... I think we would keep many trees to fertilise the land.” After a ten minute discussion, most people agreed: “If we didn’t need the foresters’ approval to grow and cut trees, our land would soon be covered with a variety of species that we could harvest to use and sell.”

Back to basics

Mr Diop, the farmer from Thiès, was witness to the discussions at the Ouagadougou conference, and welcomed the ideas of establishing a large-scale farmer-to-farmer project for promoting agroforestry. He is convinced that the local authorities will welcome this project. But he also wonders if we do not need another generation of projects that link agroforestry to tenure rights and markets. In many parts of the Sahel there are more and more trees following the promotion of agroforestry. In some small pockets, local conventions on the tenure of land and trees, together with a lively market, have helped entrepreneurial farmers to re-green their land. What they need is clear regulations to support entrepreneurial agroforestry – for all those involved.

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From sand storms to a well-tested approach to higher incomes. Photos: Frank van Schoubroeck

