



Evidence of Success

Working as a sustainable land management specialist at the Centre for International Cooperation of the Free University in Amsterdam, and as a Senior Fellow at the World Resources Institute, in Washington, Chris Reij is the facilitator of “African Re-greening Initiatives”. This is a platform that supports farmers in the process of adapting to climate change and in developing more productive and sustainable farming systems. This platform was launched to help scale up the results of the efforts of those farmers and communities in Burkina Faso and Mali who have shown enormous success in the fight against desertification.

Interview: Jorge Chavez-Tafur



Looking at the world as a whole, are the deserts growing?

All over the world, we see recurrent periods of drought, a severe depletion of soil fertility, and the degradation of the vegetation cover. So, yes, we can say that things are worse. In West Africa, in particular, there was a prolonged drought between 1968 and 1973, and rainfall remained low, and it is still irregular. Farmers have been forced to expand their cultivated areas in order to compensate for the declining crop yields, cultivating in areas which had some tree cover, and therefore cutting the trees in order to farm. During the 1970s and 80s we saw an enormous decline in the vegetation cover in order to increase the total yields – basically by expanding agricultural production into land that was marginal, creating degradation. Today, climate change is only making the situation worse for farmers and herders.

This is a gloomy picture... Yes, it is gloomy. In a way, we are heading into a perfect storm. And unless we do something at a large scale, we are heading into trouble. But things are happening, and we now know much better what to do, and how to do it. And if you look at the Sahel, there is a lot of evidence, with farmers engaged in a very successful approach. If you go to southern Niger, you will find 200 million trees that were not there 20 or 25 years ago. And this is not because farmers started planting trees, but because farmers protect and manage the trees that regenerate spontaneously in their farms. What you see is that the density of on-farm trees has increased, while vegetation in the common lands has degraded, so there is a shift from natural vegetation to agroforestry systems on farms. This is highly relevant to farmers, especially in areas of high population density. And it shows that farmers have come up with systems that can cope with drought.

Is this just one 'island of success'? This is an island, but it is an island of 5 million hectares, which is bigger than the Netherlands. And it happens in a place where farmers had their backs against the wall. Yields had gone down so much, the population densities were so high, the natural vegetation cover almost didn't exist anymore, so women had difficulties with the household energy supply. Without intensifying their agricultural production system and increasing production sustainably, farmers would have been forced to leave, there would no longer be a future for them.

Whose idea was it? Perhaps this is what I like most. This is local knowledge, and local knowledge in action. The contribution of projects,

Chris Reij went first to West Africa in 1978 as a regional planner, at a time when, after a severe drought period “serious erosion was taking place and yields were declining drastically”. Yet, looking back, he feels that desertification is now an even more serious problem. However, “in this ‘sea of doom and gloom’ you find many ‘islands of success’ where the degradation rates have not only diminished in the past 30 years, but where things have improved, and which have an enormous potential for scaling up. This is all very positive.”



and even of researchers, has basically been limited to supporting farmer's efforts. We are only catalysing processes, and creating movements. It is the farmers who are experimenting and innovating.

Isn't there a contradiction between producing food and stopping the deserts?

I don't think so. If anything, the contradiction was there before the 1960s, when most of West Africa was following the "modernisation" paradigm, and "good" farmers were those who cultivated a monocrop and who wouldn't have trees on their fields. Even after independence, many governments subsidised farmers to remove the trees from their fields, in order to allow for mechanisation, in the hope of achieving higher yields. It is clear now that this kind of modernisation was detrimental to the sustainability of agricultural production systems, because it causes a lot of erosion, and thus also affects crop yields. What we see now is a reversal of that paradigm. The evidence points in the other direction: without on-farm trees, there is no future for agriculture in Africa's drylands.

So are there more crops now?

You can see enormous differences between the villages with trees and those without trees. Trees produce fodder, so families have more livestock. Trees produce leaves, which are sometimes part of the human diet. Trees produce firewood, which farmers can even sell in the markets for cash which they can use to buy expensive cereals on the market during drought years. Villages without trees do not have the same opportunities, and this translates directly into higher infant mortality rates. I don't necessarily believe in a strict organic approach; adding small quantities of fertilizers can be very beneficial. But this is not just about fertilizers, but about complexity, and about developing complex agricultural production systems which are more resistant to drought, and more productive. And these can be seen in place.

Aren't more ingredients needed?

The technical part of the protection and management of the trees is very simple, but you need village institutions; the people need to organise themselves in order to manage the new tree capital. So the building of village institutions is required, and there are two possibilities. Either you look and see if there are traditional institutions which can be revitalised, as it is happening in some parts of Mali, or you help build new village institutions which can do the job, as is happening in some parts of Niger. Either way, these village institutions need to have a balanced representation of men and women, and also of herders, and also of the young. And then you see that, over the years, these village institutions do their job by, for example, sanctioning those who do not respect their rules for managing their resources... These village institutions are developing into problem solving institutions: when other problems emerge, villagers can meet and discuss and come to an agreement. And the villagers soon realise that there are also neighbouring villages going through the same process, so they are now in the process of building inter-village institutions. It takes time, as it is a complex process, but it is happening, and it works.

Don't you also need land ownership?

We are talking about individuals, managing their property. So this only works when farmers have the exclusive rights to the trees on their farms. Back in the 1980s, the land and all the natural resources belonged to the state, a heritage of the French colonial times. But this started changing after 1985. Clearly defining issues such as the ownership of the land and of the trees is a key condition for success. In that sense, it is very important to work with national

governments, and to engage in dialogue in order to create enabling agricultural development policies and forest legislation which gives farmers the explicit ownership of their own farm trees.

So you need a national-level framework that supports, or at least does not go against what farmers are doing... Exactly. You need policies which enable farmers to do things, and also policies that give them an incentive to take care of their resources. We need good policies and legislation. It is vital to create grassroots movements and work from the bottom up, but we also need to go from the top downwards, creating and enabling national policies and legislation. There is a role for both. I think that farmers can be even more effective if the national policies and legislation support this process. There are no other major obstacles which would prevent us from being successful, so I think that success is within reach.

So are we going to see 5 million hectares of trees elsewhere?

We will see them soon in many other places. But we need a systematic strategy for scaling up the agroforestry successes seen in Niger and other areas. This would have to include farmer study visits, or bringing farmers from one place to another, and helping them see what other farmers are achieving. Another component could be to spread information by systematically using ICTs, mobile phones and rural radio, and giving the floor to

all those farmers who have so much to say. In short, it requires an effective and efficient knowledge management programme. And this programme needs to include policy makers. Many national policy makers have no clue of what is happening on the ground. You need to bring the policy makers from governments and donor agencies into the field, and show them what is happening on the ground, so that they get inspired by success, and support similar processes.

And what must they do? If they are Members of Parliament they will see if there is a need to revise the forestry legislation in order to make it more supportive. If they work with media and communications, they can find ways to communicate these achievements to a larger section of the public. There is a whole toolbox that can be used for scaling up.

Which brings us to international platforms, such as the UNCCD. What would you tell them?

With Luc Gnacadja at the helm, the UNCCD is in good hands, and their message is pointing in the right direction. The problem is that not all the countries that signed up to the Convention are taking all the right steps to get there, so we still have a lot to do.

For more information, please contact Chris Reij at c.p.reij@vu.nl, or visit the website of the Africa Re-greening Initiatives: www.africa-regreening.blogspot.com

Natural regeneration

"Having gone to the Sahel many times, the first time I really saw success was in the Yatenga region of Burkina Faso, where an agroforestry project was supporting farmers in improving a traditional technique of putting stones in a contour. This helped them reduce or slow down the flow of water in the fields, which caused water to infiltrate, also reducing damage downstream. This led to an increase in the numbers of trees regenerating, and thus to many more trees in the fields. Several years later, I was sitting with farmers in Senegal, who just told me to look around. 'Look around you, we've been planting trees since 1984, what do you see? Nothing'. But then they took me to another place, and said 'we've been protecting the natural regeneration in this area, and what do you see...?' And it was lush green. You saw the young trees coming up and growing quickly.



"Of course, there is a limited number of species that regenerate, and the whole process also depends on what you have as 'seed memory' in the soil. In terms of cost-effectiveness, however, the natural regeneration approach is better because you skip a nursery, you don't need to transport your trees to the areas where they are going to be planted, and you don't need to water them after planting. No wonder that more and more farmers are picking this up."