

Student Master Economic Development (Mexico): *How do you assure that a twenty-year project will deliver results in twenty years? I mean, I am from Mexico, and I was leading a project in the food cluster, but we had so many problems with the government and the municipal change every three years. That was a huge problem in making these kind of sustainable projects work, let alone a project that needs twenty years. So, how do you guarantee success in a complex society?*

Ferwerda: First of all, in our selection mechanism we started with selecting a number of countries we wanted to work with for the coming five years, such as Australia, Spain, Colombia, United States, India, Turkey, South Africa, Namibia and others. Mexico is not one of them, because one of the selection criteria is political stability – though it remains difficult to decide whether or not there is political stability in a certain area, so your question remains relevant here.

Another important thing is that we create new companies or we work with existing companies who have a sustainable track record; so we look very carefully into the people we are working with and if they are really connected to the land. We don't work with consultants flying in or out, but with people such as the farmers in Spain who are on the land and want to stay there for the rest of their lives. That is the first factor needed in creating a long-term investment.

The last thing, when talking about governance, as for example in Balboa, Spain, farmers and local entrepreneurs have themselves created a company or an association, which in two years time ended up including national parks, entrepreneurs and in the end also the government. The latter is now also embracing the four returns-three zones model, because it helps to create jobs. Their motivation is to bring people back, have open schools again, create social cohesion etc.

Our goal is obviously to prove that this model works, and therefore we don't want to choose more difficult countries.

Student: *Actually, we worked in a project that could use the four return guidelines to be more successful, and we worked for three years on putting together all the stakeholders, and I know Mexico is in a very difficult – mainly political – situation, but they were all very engaged. So that is why I wanted to know where do you start engaging people? I mean, we didn't know, we didn't have any guidelines, after three years we had many people engaged, but things didn't work out due to lack of organization.*

Ferwerda: Our experience is that in such a landscape, people are directly or indirectly connected to the land, and they are living in a situation where they have a mountain of puzzle pieces, and they don't know how to put them together. Where the farmer is for example concerned about irrigation, but the business man with building a company and the need to waste water, and the local government with perhaps building a road, yet the conservationist with the protection of the forest, we – through this four returns-three zones model – zoom out, not on one village, national park or river, but on – what we call – an equal system level.

Also, working within a twenty-year timeframe, you create hope, whereas with a four-year project you can't get anything done.

Aarnaut Loudon: *I used to be in a global company, and I listened with great interest to your presentation, but in the end you went a little bit fast for me: you suddenly introduced*

carbon pricing in Paris and that that is highly required. I was wondering why you suddenly added this, because I don't want to get into climate forming and things like that, but when you look to the world from the outside, like astronauts do, the general impression is that our world is greener than it was a long time ago. Maybe that was the impact of carbon dioxide? Anyway, if you want to restore equal systems, you also need carbon dioxide otherwise it won't work. I can understand the point that you need to value CO₂ emissions, but why so specifically for what you are doing?

Ferwerda: I added this one sentence this morning because when I reread the Dick de Zeeuw lecture series, I saw that tradition is to also discuss practical matters, such as the inclusion of a pricing mechanism for something like carbon. If we were to include an international binding pricing mechanism, the ecological restoration process will go faster; and in the case of carbon, this will help to restore soil and ecological functionality. Furthermore, maybe you have noticed that I didn't talk much about planting trees? That is because planting trees is an instrument within a whole agenda, whereas in the cases I discuss, you sometimes have to remove (sometimes many) trees, so you can for example make biofuels from it. Moreover, many trees are sometimes wrongly situated if our purpose would be to increase ecological functionality. So yes, the world might be greener, but the world has lost a lot of biodiversity.

So, to answer your question: yes, a fast track in this process is pricing carbon, though I don't know if that's really going to happen. If it doesn't, there are a lot of other materials that can be used in creating the ecosystem restoration industry. The logic is anyhow this: if we don't do it, we're killing paradise, so why not do it?

Aarnaut Loudon: *I had the feeling that I haven't expressed myself clearly on this point, but what I heard from you at the end makes it now more clear to me. I thought in the short-term you have to do this, so it may be a short stopper if we don't do it, but that is not the case.*

Ferwerda: No that is not the case. If nothing happens in Paris, we will continue, and we will be successful.

Student David (Nigeria): *the presentation is quite good, it's like a solution to my continent which needs environmental improvement, provision of food security, and then employment; thereby eradicating poverty. But then you mentioned only South Africa in your presentation. Is South Africa a case study for the African continent, or a case study for the company to study how viable this can be in the African continent? Or do you intend going beyond South Africa after some time?*

Ferwerda: Thank you, that is a good question. South Africa is not a case study, because we don't do case studies. We work on the landscapes to create four return restoration companies, so that at a certain moment in time we can leave and let the locals take over the work completely. South Africa coincidentally came on our path, because we knew a good local NGO there working with the U-curve, which we consider to be the right methodology. The farmers were also ready for something new, and the region was connected to a big city, Port Elisabeth – which is very important for having business coming in. All the parameters were there. Since we can't fix the whole world right now, we wanted to invest our time in max five large projects for the coming five years.

But if Nigeria, or a Nigerian company, or a Nigerian landowner will come to us and ask us to bring in an expert from wherever, we can definitely establish these connections. If there is land available, and the surrounding villages want to partake in the change, we are the last ones to say 'no'.

David: *But the truth is that you, as a farmer, don't know and you don't know that somebody knows it: you need to be told. If I am walking down this hall, and if I don't know that there is coffee at the end of the hall, how do I go there to take coffee? The cassava farmers never knew anything and the government was unsupportive, meaning that we have a whole lot of economic policies on paper yet not in reality. So, this organization came and sent its researchers to the farm to meet the peasant farmers, and if you go to Jos, Minna, Abeokuta, you can see these people working, while the farmers never got to know them, and never got the opportunity themselves. So I feel, that if it is possible for the organization you work for to do this beautiful thing, that this organization can kind of try – if possible – to create a channel where it's made known to people that you exist. When they know you exist, it will work as a bridge. Someone will come and ask you, and from thereon work on a solution, and your presence will be valued, and something will be initiated.*

Ferwerda: We are still small, and what we would like to show is that it is possible to replicate. I prefer that the farmer of a farmers association from Spain, South Africa or from wherever – who at least has the experience that it is working – goes and meets your people and starts a dialogue. The farmers you work with know many things already, but quite often they are invisible, because they are squeezed into global markets, poverty or civil war. But start asking them questions like 'if you would get \$15,000,- how would it affect your plantation?' Touch upon their inspirations, it will open up their eyes, and get the conversations started.

Student *Do you exclude the involvement of the institutions, such as the United Nations, ECP, IMF etc., or would you like to have them drawn into this new paradigm?*

Ferwerda: No, the UNCCD and UNEP are connected; we do not wish to exclude these institutions at all. For the development and financial institutions (DFI's) are very important in guaranteeing capital, without which we wouldn't be able to show that this works in the first place. Also, private investors will mostly only step in if the inter-American development bank or FMO will stand behind the project. In the end, in 2020 or maybe later – we hope sooner, but it will probably be later – we would want to give people the choice (when they go to their pension funds) to get 20% of revenues from the usual business industry or maybe 8 to 10% from the ecological restoration industry. That would be our dream – in which case we need them indeed.

Student from Japan (political science): *Thank you for your presentation. You say that it is important to make one agenda, like a holistic approach, and that it is important to include agencies and actors like governments, farmers, conservationists etc., but I think it would be rather difficult to make one clear agenda with that many actors and all their different priorities involved. So how can and do you incorporate all agencies into one agenda?*

Ferwerda: I didn't say this was easy; it is indeed difficult, so you're right in posing that question. But there is one thing in this framework that helps a lot: the timeframe.

Because we have a long timeframe we are able to say 'no' to stakeholders when they have a completely different agenda. A business may of course step into the project with its own agenda, but its intentions should be in the right place. That is my point on withdrawing people and businesses from their silo-thinking; it helps to have a vision for the whole landscape based on an ecosystem framework.

Jan Pronk: *Listening to her question and then to your answer, you're quite convincing in that it is possible to get all the stakeholders together and find that kind of a common basis, because there is always something in it for all of them: the four returns. But how do you get the shareholders interested too?*

Ferwerda: At the moment, we are starting with this investment fund, and you have, let's say, private investors, institutional investors (e.g. the pension funds), the DFI's and the private person. We have decided to start with family offices, because some of them are happy enough with three returns instead of four – and you need to start somewhere. These are the first investors, then come the DFI's, but the real investors are of course the pension funds and the APG's etc. However, they see this as unfitting their portfolio, because it is something cross-cutting their usual business in agriculture, forestry, oil, mining etc. – while we're not at all against oil-drilling or even against shale gas, as long as it all fits into the whole balanced picture.

Therefore, we are yet at the beginning of this phase and are in the process of setting up an investment fund. I believe that within ten years private investment funds will get into this business and receive a return in between 7 and 15 per cent.

Ron van der Hoeven [ISS staff]: *I enjoyed your speech and I liked your inclusion of business. You have put a lot of emphasis on costs and benefits and you showed that usually – in most cases – the benefits are greater than the costs, which leads to my question: because if the benefits are bigger than the costs, then it's logical to do it, yet it's not happening. Why is it not happening?*

I think, but I'd like to test you on that, that it's not happening because you gave a global picture of the costs and benefits. But if you have a system in which costs and benefits for some people are greater than for others, like the 7-15% return on investment, how do you erase the tension between the different actors who vary in the amount of costs and benefits they give and receive?

And then maybe a corollary question: one of the fellows of ISS, Ostrom (Nobel Prize Laureate), put a lot of emphasis on ownership of land, as she talked about the Commons and how to determine the Commons, so is there any correlation between land tenure which is commonly owned and your project? Because when you have a commonly owned tenure you can avoid some of these tensions.

Ferwerda: Why we are using a global picture? Because this is simply all that we got on the economics of ecosystems and biodiversity. Though it's a bullshit figure of course, these are estimates and they help as a convincing power. The figures in the real world however, are much nastier indeed. The issue starts with land tenure, which is why we prefer to work with people and farmers who have their own lands.

How it worked in Spain for example, started with the farmers agreeing to set aside their own lands; i.e. get the goats and the herds off those lands, and let it restore in a natural way. Secondly, they changed their ways of composting etc. and got a higher yield out of it, which compensates for the fact that they have less life-stock or less degradation

activities. They understand now that by creating an ecological corridor, they increase their productivity even more.

How, then, does the investor get his revenues? We ask investors to invest in a certain company, while we – with our expertise – work with the farmers on their lands. When we agree with them that they need to get their goats out on the 25.000 hectares, we ask another beverage company, which wants to bring its water footprint down, to replant those 25.000 hectares. That is the puzzle we put together.

Jan Pronk: *You have seven examples of landscapes, how large are they?*

Ferwerda: One area in South Africa is 230.000 hectares, partly consisting of protected areas, where the government is providing subsidies for jobs. It is one valley of the three valleys that are the watersheds of Port Elisabeth – and Port Elisabeth has a huge water problem. Our interest there was to get connected through the Business School of Rotterdam to the Business School of Port Elisabeth. Then we were able to organize a business workshop, which eventually led to a mobilization of companies that want to bring down their risks. So companies calculate, yet now at least they want to restore another area set aside by the farmers – and sometimes all you need to do is take off the goats of those lands to restore it.

Scholar (India): *In India there is a lot of debate on hunger and malnutrition, the two being different but definitely going hand in hand, and parliamentary committees when they are talking about food security, GM crops is a subject that is coming up a lot. And companies like Monsanto are lobbying very hard to come into India, but there is a lot of resistance. My question to you is, have you in the past – since you've said, companies are an important part of your project – had a GM crops company approached to you; if yes, then what your response has been; if not, and they approach you in the future, what will your response be?*

Ferwerda: Thank you for this question. I didn't expect it, but this is of course a very relevant one. Yet no, they didn't approach us, because we are still small; but yes, we know them very well. I gave this presentation to the CEO of Monsanto during the Business Council Event in Atlanta a year ago. We had a good discussion, but in the end found no common language. This is due to our different views on, for example, creating soil fertility: they think and work in the short-term, while in the long run their activities lead to degradation etc. The same thing concerns GMOs: I'm intrinsically not against GMOs, because a GMO is a fast-track evolution, but they can harm the biodiversity, because the latter sometimes cannot team up with the fast-track evolution that GMOs bring in. We need to take that into consideration: under certain conditions GMOs can be helpful, yet it's not the answer to food security or soil fertility. Instead, the maximization of the interaction between species is the answer to achieve both. We need the maximization of the interaction between species and the optimization of the variety of biological diversity; with these companies this is unachievable.