# APF Net Curriculum 3 INternational dialogue on forestry issues

## **Lecture 11 Global policy issues affecting the sustainable management of forests (Part 2)**

## **Video 1**

## **Mitigation, adaptation and landscape approach**

## **TranscriptsDuration: 00:12:02**

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

Hello, my name is Terry Sunderland, I'm here with my CIFOR colleague Giacomo. and this afternoon we are going to talk about the integration of landscape approaches in climate change, mitigation and adaptation. So Giacomo, when you work primarily the interface between climate change, mitigation and adaptation, where do you see that interface is the work we that do on landscape approaches?

(Giacomo Fedele, Research Fellow, Center for International Forestry Research)

Yes, for me you're working on adaptation and mitigation in the synergy side, we talk a lot about synergies but often, it is also a tradeoff. So to really address climate change, there are basically the two strategies, right. Trying to reduce the current emission of carbon from activities, and at the same time we want to try to reduce people's vulnerability. So this is about adaptation. I think it's a very interesting approach, a landscape approach because it brought in a bit, in the discussion about this scale, where our intervention should occur, and I think from our adaptation and mitigation perspective, very interesting scale is landscape because it broadens a bit the extra space for our intervention and from my understanding it also helps to include the different stakeholders in different activities in the landscape because they could be winners, and they could be losers if you try to implement any activities which can have an impact on climate change.

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

What does that actually mean on the ground when you talked about scale, you talked about livelihood, you talked about adaptation which is resilient to climate change. What is that you mean if I went to a landscape when we see this type of project on the ground, what would they, what do I see?

(Giacomo Fedele, Research Fellow, Center for International Forestry Research)

You may see a landscape which is very heterogeneous I would say, very multifunctional if you talk about synergy adaptation and mitigation. I think that resilience landscape should be one that have this in features. It's a mosaic of different structures, you might have different trees, different tree species, a lot of different agricultural species with different crops, you can have vertical structures as well as horizontal structures. Yes, I think this could be the ideal landscape to really address some of the climatic issues that we are facing today.

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

That's interesting because I mean the work that we've been doing on landscape with CIFOR for almost twenty years is about land, very multi-functionality and with this complex mosaics of agriculture, forestry, plantations, and I think we are not talking about anything really different, it's just giving a way of maybe looking through the landscape length itself in terms of climate change.

(Giacomo Fedele, Research Fellow, Center for International Forestry Research)

Yeah I think you're completely right, not really inventing anything but is like looking at this issue from a different angle which actually can bring interesting perspective, and can really help at least for adaptation to be more integrated to mitigation. Very often , even if you look at the climate finance, like 77% of the climate finance is currently going to mitigation projects, adaptation is there lagging behind and looking at the landscape and the possible intervention of landscape could be a way to tightly integrate more adaptation into this climate change policy courses.

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

And what role does REDD and REDD+ play in terms of, because they have this multifunctionality of landscapes?

(Giacomo Fedele, Research Fellow, Center for International Forestry Research)

Yes, so REDD does meaning mitigation strategies and of course its main objective is mitigation but is becoming more and more important is discussion about co-benefits that there are project companies to look at people in terms of improved land tenure, communities' benefits, biodiversity and even adaptation, so I see REDD as a big opportunity if you it's implemented well and its designed, it's really sound and there are some thoughts and by involving a lot of stakeholders, then REDD can be, I think even an effective instrument to help communities to be less vulnerable to the impact of climate change.

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

Seems it's important that you mention the issue of co-benefits. So the various aspects of CIFOR research generate nice correlation between biodiversity and biomass. So if I was a REDD+ fund, I would wanna get those co-benefit, not only for livelihoods but also for biodiversity. So to locate projects where you get the maximum lively benefits but also maximum benefits for biodiversity assessor. It's an interesting point but the REDD+ mechanism is lagging behind, is it not in terms of the original expectations in around 2006, 2007 to period of 2014, there are very few operational REDD projects on the ground. Why is that?

(Giacomo Fedele, Research Fellow, Center for International Forestry Research)

Yeah, it's very difficult question. I think well maybe there were so many expectations and the enthusiasm of the early days, facing difficulty in this broad requirements for participations and this actually requires a lot of times, a lot of people to be involved especially when we talk about mitigation and adaptation energies, there are different experts working in these different fields and often they were working in solos and is the even difficult to bring them together. And REDD is a very interdisciplinary instrument then it requires I think time and effort from different people, different government agencies to come together and discuss and agree on things that needs to be changed in order to be ready for REDD, maybe this was a bit under-estimated but i think what has been done in these last years It's another great option whatever has been done, it would bring benefits may be more in long-term but you don't see it now. In our work on synergies between adaptation and mitigation, sometimes people say we are forgetting the food aspect which is the basis of climate marked agriculture, how do you see about the food in the climate change?

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

I think even the phraseology climate smart agriculture is quite interesting because it implies there's almost a climate stupid agriculture, I think that we underestimate the adaptability of local people in the first place to adapt their agricultural systems to change. One of the key aspects of current food system is that 40-60% of the world's food is grown in smallholder diverse systems, and these are much more resilient to climate change then what we consider you know the commercial agricultural systems of monocultures with most of the trees and other natural vegetation removed. And those systems unfortunately don't get the support in terms of research support, also development support because they are small holder farmers that tend to be relatively poor and despite the contribution to the world food systems, they are pretty much out there on their own and the post-harvest losses are extremely high as well, and there's also a big year gap, the year gap between what is actually achieved per hectare could actually be increased by inform more in person. So with those sort of development in person that I'm talking about in terms of fertilizer or other products and extension, better seeds, better germ plasma, we can actually support these smallholder farms to produce yet more food and yet exhibit that level of resilience and adaptation that we are striving for.

(Giacomo Fedele, Research Fellow, Center for International Forestry Research)

OK maybe tell you very often we hear that agriculture and forestry are enemies, and what do you think about this? Do you agree or what forest can get from agriculture and vice versa?

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

That's a good question because the silent mentality is pervading in science for the last thirty to fifty years, and I think that's something the CIFOR as an institution within the CGIR Is trying to break down those silence and trying to understand the role of forests and agriculture and the interaction between them. As I mentioned earlier much of the world's food is grown in landscapes with trees and there is interaction between trees in forest, playing incredibly important role as a host for pollinators, playing a great role in pollination services, benefits many crops, soil stabilization, watershed protection and ecosystem services are important for agriculture. So getting people to actually understand that is critical. We're undertaking systematic review right now, looking exactly at what is the role of forest and trees in sustaining agriculture, and related to that is the direct provisioning of trees and forests and what we used to refer to as non-timber forest products, forest fruits, and other edible materials, leaves from the forests do actually play an incredibly important role for nutrition of people living in the proximity of the forest. So relatively poor people have a better diet than people who actually more money and who tend to buy less healthy products for their dietary consumption. So that is such a powerful message. The trees in forest not just provide ecosystem services, just for agriculture, but providing nutritious sources, the foods in themselves. So that's, as I say, a powerful message that we're taking to the political table, trying to get forest and landscapes on the agriculture map.

(Giacomo Fedele, Research Fellow, Center for International Forestry Research)

And very often even in our research we find out that forests and trees can offer alternatives to the people that are living in disaster areas, they are more and more affected by droughts, by the extreme floods and the connection rely on recipients of the forest to help them with some non-timber forest products, or some alternatives to their livelihood that has been disrupted because of these.

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

That's exactly right, yeah, forests play incredibly important roles as a safety net, particularly in terms of adaptation to climate change, to climax climatic shocks. People rely on as you said, non-timber forest products and other things from the forest. Year that role shouldn't be underestimated.

(Giacomo Fedele, Research Fellow, Center for International Forestry Research)

And even the role of trees and forests are playing before, I mean the anticipation of a disaster, if you have a healthy ecosystem or healthy forests protecting steep slopes from soil erosions or degradation. Sometimes we only realized later when the forest is not there anymore that problem might rise up.

(Terry Sunderland, Principal Scientist, Center for International Forestry Research)

And that's why we have to be proactive in our research and not reactive in this, where I think the comparative advantage of CIFOR is we start to predict some of those things before they actually happen, so we can mitigate against them.