

Opening of the Committee on Science and Technology

3rd Scientific Conference

Date: 9 March 2015 at 10.00 AM

Location: Cancun, Mexico

(1500 words – 17 minutes)

Excellencies, ladies and gentlemen,

Distinguished scientists,

Welcome to Cancun

Firstly, allow me to thank the Mexican authorities for their generosity in hosting us.

I would also want to recognize the donors and supporters who have made it possible for so many of you to be here today.

But perhaps most importantly, allow me to thank you all for coming. It is a pleasure to see you all here.

Let me start by posing a question. It is an intriguing mystery. **Why did the Maya civilization - a remarkably sophisticated society of more than 19 million people - suddenly disappear sometime during the 8th or 9th centuries?**

The Mayan people never entirely disappeared, of course. Their descendants still live across Central America. Yet, dozens of urban areas in the

lowlands of the Yucatan peninsula, such as Tikal, went from bustling cities to abandoned ruins. The collapse took only about a hundred years.

There are countless theories. Some are plausible; foreign invasion or peasant revolt. Some are downright absurd. Alien invasion for example [*I am not talking about an invasion of alien species...but of little green men.*]

The most convincing theory was proposed by Jared Diamond, in his 2005 book *Collapse*. He claimed that a prolonged drought, exacerbated by ill-advised deforestation and land management, forced Mayan populations to abandon their homes and entire cities.

Unfortunately, we have seen the phenomenon...again and again.

From the dust-bowl in America in the 1930's to Darfur and beyond; harsh and changing climatic conditions and poor choices about how we manage our natural resources have taken civilization, as we know it, to the point of collapse.

To my mind, we are approaching a point where other civilizations will inevitably collapse under the weight of degradation trends and climate change.

So, as an outcome from this Conference, I would welcome your practical recommendations on two key points.

1. We know to address land degradation we need to get sustainable land management implemented more systematically. **But how do we blend modern and tradition knowledge about land management? How do we get the information to the right people and implemented at the right scale?**
2. **What message do we take about land to those working on climate change issues?**

The question of going to scale is particularly vital.

It is an often forgotten truth that 75% of the poorest people in the world live on the land in rural areas. They mostly rely on small-scale rain-fed agriculture. And globally, there are approximately 2.5 billion people involved in smallholder agriculture.¹ For people who depend for their whole lives - and entire livelihood - on the health and productivity of their land, less rain and more land degradation is a tragedy.

How will people survive ever more extreme and harsh climatic conditions? With the current rates of land degradation, how can we meet our needs for water, energy and food?

Already, every year, around 12 million hectares of productive land are lost entirely to land degradation processes. The IPCC is warning us to expect a further 2 percent drop in agricultural output, per decade – as a result of climate change.

¹ IFAD/UNEP (2013): Smallholders, food security, and the environment. p.8
http://www.ifad.org/climate/resources/smallholders_report.pdf

And if current practices continue, we will need at least an additional 4-6 million hectares a year for increased food production annually to meet the needs of a growing population. A population now expected to top 9.5 billion by 2050.

Competition and eventually conflict over scarce and vital natural resources will accelerate. Several vulnerable “hot-spots” are already emerging particularly in the Sahel and Middle Eastern regions. But it is a global problem and no region is immune.

Going to scale and achieving land degradation neutrality - by stopping the loss of healthy and productive land - would make a vital contribution.

Your recommendations can help enable stakeholders understand how to reduce land degradation and rehabilitate degraded land. Such recommendations, based on sound science, are indispensable in our efforts to help vulnerable communities survive and thrive.

But only if the most appropriate knowledge reaches the people who need it most. The right knowledge has to evolve, be shared and be used more widely.

Your guidance on technology, knowledge transfer and the replication of the right practices will be vital for achieving land degradation neutrality. And as climate changes, we will all need to learn how to make the land and the rural communities who live on it more resilient. It may start with a single

farmer. But we will all need to change and adapt our own practices related to land management.

I want to recognise Latin American leadership in this regard. The ground-breaking **Initiative 20 X 20** has a bold target of restoring 20 million hectares of degraded land in Latin America and the Caribbean by 2020. This new initiative promotes partnerships between countries, the private sector, leading research organizations, and relevant programmes in the Latin America and the Caribbean region with the aim of restoring degraded lands, resulting in increased carbon storage, new reforestation, more productive agriculture, avoided deforestation and land degradation, and improved livelihoods.

This, to my mind, is a bold response. It forms the basis of a strong message to the Climate Change community. It is one I would like you to reflect on further during your Conference.

Land and soil have been missing, in any meaningful sense, from climate change agreements so far. But this is changing.

Given the fact that land degradation accelerates climate change and vice versa; if widely adopted - land rehabilitation and sustainable management could be a workable solution for both adaptation and mitigation of climate change.

Land based adaptation is the only solution that will work for the very poorest – who are hit hardest by climate change. Land is their primary – often only – tangible asset. By managing it better, we can build resilience.

The diffusion of cost effective and simple sustainable land management techniques to farmers around the world, especially on 500 million small scale farms, would be vital for the resilience of global food supply. It is clear most of the land based adaptation techniques that are needed are low-cost practices and skills which are often based on traditional knowledge. They can be employment generating and empower rural communities.

At the same time, land has a major role to play in the mitigation debate. Land-use change and land degradation is responsible for about 20 percent of carbon emissions globally.² This is true despite the fact that the soil is the largest carbon store on Earth; after the oceans.

At the moment Parties to the UNFCCC are discussing how to include the land sector in their Intended National Determined Contributions (INDC) for a future comprehensive climate change agreement.

But I firmly believe that investing in sustainable land management now will buy us valuable time to allow for a transition to a low-carbon economy.

To move forward together, we might consider proposing common land-based indicators as measurements of progress for mitigation, adaptation and resilience. Land productivity dynamics, land cover change as an outcome of land-use change and trends in carbon stocks above and below ground seem to have good potential. Such indicators could be used to measure and report on

² UNEP-WCMC: Carbon in Drylands: Desertification, climate change and carbon finance, 2008, p. 5, www.unep.org/pdf/carbon-drylands-technical-note.pdf

progress to UNCCD and in upcoming National Communications and Status Reports and in measuring National Determined Contributions under UNFCCC.

Common indicators will help with reporting certainly. But more importantly, common indicators could establish a baseline for accelerated and effective investment by public bodies such as the GEF and Green Climate Fund and private investors.

The CST, Science Policy Interface and this conference need to join forces with their climate change and biodiversity colleagues to better address the implications of terrestrial/land ecosystem degradation on climate change and the benefits of land rehabilitation/ecosystem restoration for climate change mitigation and adaptation.

That would be a tremendous contribution to the decision making processes for UNCCD. It could pave the way for a future climate change agreement.

Conclusion

To my mind, the linkage between land and climate is clear, measurable and compelling. But I cannot emphasize enough that this is not an intellectual exercise anymore. The scientific recommendations you make must be valid but they must also matter on the ground.

Because as the eighteenth century French writer François-René de Chateaubriand wrote, “Forests precede civilizations and deserts follow them.”

We have a choice. To leave only deserts in our wake and watch our civilizations collapse. Or to take action.

2 billion hectares of degraded land worldwide, a total area larger than South America, have the potential for land rehabilitation and forest restoration.³

With your help, we can seize the opportunity. We can take our solutions to scale. So, please make your recommendations clear. Please make your recommendations practical.

Civilization, as we know it, may increasingly depend on it.

As a final word, I take the opportunity to thank the scientific consortium led by *Agropolis*, the Scientific Advisory Committee and the CST Bureau for their leadership in the preparation of this Conference.

I wish you a successful meeting. Thank you.

³ World resource Institute: A World of opportunity, 2011, p. 1
http://www.wri.org/sites/default/files/world_of_opportunity_brochure_2011-09.pdf