Good afternoon. I'm honored to be here. I'll try to make some quick and pointed remarks, following up on my colleagues.

I'll tell you, I think Peter [Holmgren]'s put a challenge to us that is very important: How do we shape the future by challenging the present? And I think that’s part of the message that I want to give here. So I'm following up on Pushpam [Kumar]'s points that we need to look under the macroeconomic trends to really understand the underlying base of what we’re dealing with.

I'd like to start with this graph, to understand and to appreciate the time that we are living in – we live in a time of accelerated change.

This document is an edited transcript of a talk that Professor Eduardo Brondízio delivered at the "Colloquium on Forests and Climate: New Thinking for Transformational Change" held at Columbia University, New York, on 24 September 2014, the day after the 2014 UN Climate Summit. A video of the presentation is available at cifor.org/colloquium/governance.
You can see it from many angles, but I think the angle that we have to look at is that we have done a lot. We have accomplished a lot in a short period of time to cope with changes that are at a scale that are very unprecedented.

“To what extent do structural problems persist? We must look into that dynamic to understand why so many initiatives as individuals, as municipalities, as countries, do not add up to a global level.

At the same time, this particular situation creates a dilemma that we’re still learning how to focus on. Accelerated change meaning accelerated responses, but it also means that we have emergent features, emergent properties, emergent conditions all the time. That requires that we critically look at what we have done and what we have accomplished to be able to see: what are the limitations that we have to move forward? My point here is to take a positive look at how much we have accomplished in recognizing the value of forests, recognizing the value of communities, recognizing the value of ecosystem services. But how much do all the structural problems continue to persist? It’s very important that we look into that dynamic to understand why so many initiatives that we have as individuals, as municipalities, as countries, do not add up to a global level.

I took the title of evolutionary governance from my colleague and friend Elinor Ostrom when in a similar week a couple of years ago she talked about the need to look at governance in a diverse perspective to look at many mechanisms at different levels that are taking the charge and doing, and pursuing solutions to the problems we're facing, vis-à-vis a single, global solution. But at the same time, that challenge is limited by a number of persistent issues that we need to confront.

The same acceleration we see in the Amazon, and I went there again to the Amazon in part because I work in the field and I think we need to look under the macro indicators to really understand what’s taking place. Some of my key points here, around recognizing how much of an advance we have made in all those fronts, have to do with the mismatches that we have to confront today. I’ll point to three particular mismatches that I think are important challenges
for all of us scientists. I think we are a long way off in terms of having the tools and the skills to confront the kind of complexity that is emerging. But also, for us as a society: how do we evaluate? How do we re-craft policies in a continuous way to deal with a world that is continuing in an intense process of transformation?

We face now a huge dilemma of interconnected systems. The same advances we have made that have been able to deal well with governance at one particular level are now subsumed by changes happening around those areas. And we need to see – and I think many of the messages before are pointing to the same direction in terms of connectivity – how do we think about governance in an interconnected world? And continuously rethink the advances that we make and adapt the institutions that we have?

“How do we think about governance in an interconnected world? How to continuously rethink the advances that we make and adapt the institutions that we have?

The first one – we’ll touch on it many times, and I think CIFOR is leading our intellectual exercise in thinking about landscapes – it’s the mismatch of land governance institutions.

We have come a long way to recognize the right of indigenous peoples to put aside reserves, to develop conservation areas. This has been perhaps the most successful effort in the last 20 years if you think of the context of the CBD. This is true throughout the world. As far as limiting the expansion of deforestation, it has been very successful. As far as providing rights for indigenous and local communities, it has been extremely successful. But as far as responding to a world where connectivity, and – we’ll use the term of Oran Young – functional interdependence connects resource systems, agriculture systems, forest systems that are apart but integrated through watersheds and other processes. We have now to rethink our strategy of conservation to face that.

I could talk a lot about what it means in terms of governance, in terms of land regime policies, but the clear message is that we need to think in terms of landscape level. We need to think beyond conservation areas or protected
Areas as a strategy for conservation. Many of the Sustainable Development Goals, for instance, tend to focus on protected areas and protected species, when most of the challenge that we face is conservation outside of protected areas. The landscape in the Amazon is telling of that.

What I’m telling you is the “unwanted hug” is the reality of a large number of indigenous areas, conservation areas, and many other areas that are being very fast surrounded by intensive agricultural systems. The problem, as I said, and the Xingu case I think is the best example (at the center), a conversation system, in this case a governance system, that represents an indigenous movement has been sufficient to guard the boundaries of the park in an area of active agro-industrial transformation.

“We need to think in terms of the landscape level. Many of the Sustainable Development Goals focus on protected areas and protected species, when most of our challenge is conservation outside of protected areas.
At that level, that governance system has been very successful. But it has not been enough to deal with the pressures that come through the watershed: the pollutions, the fires, the impacts that are part, ever-more part, of a system that is interconnected. There is a need to re-think how we think about conversation, how we look at landscape, how we look at ecosystem services connecting this area, and move to a next step of this model that has been successful so far, but is limited in dealing with the world in which we are living, particularly with the challenge of climate change. Carlos [Nobre] showed some examples of how that is affecting the Amazon and how this kind of governance can be successful at one level, but is limited to deal with that.

There are many bottom-up initiatives. And again, as in many other forums we see bottom-up initiatives coming up and people trying to take a lead on that. That’s one part of the problem, or solving the problem, but we need to streamline policies and ways in which we talk across different groups, we talk across agriculture and forest systems, and we reconsider how to connect and how to deal with connectivity and to think about ecosystem services more broadly.
“We need to streamline policies and the ways we talk across different groups, across agriculture and forest systems. We must reconsider how to deal with connectivity and to think about ecosystem services more broadly.

The second mismatch, and that was mentioned by Carlos [Nobre], is the mismatch of value aggregation. Again, we came a long way in recognizing the value of ecosystem services, recognizing the knowledge of indigenous knowledge, and a number of other things. But we haven’t changed a bit the political economy of extractivism, and the global political economy of extractivism. We have complemented the political economy of extractivism with economies of subsidies. In many of these areas, much of the economy in these areas, live on subsidies. We need to confront the reality in which the people that are largely responsible for reducing deforestation and reducing carbon emissions, as we have seen, as Carlos has illustrated, they themselves live on subsidies, and have not been able to enter into the market and to enter
into an economy and a productive economy. Much of these areas are running or changing from a productive to an unproductive economy, and that’s a serious issue that we need to confront upfront.

“We haven’t changed the political economy of extractivism. We have complemented the political economy of extractivism with economies of subsidies.”

I’ve been studying one of those systems that I think illustrates the potential outside of conservation areas for small farmers, largely uncapitalized, to respond to market opportunities, to use their local knowledge, and to lead the way in terms of intensification and transformation of areas to respond to market, but in a way that offers enormous economic potential. The Acai fruit case is one of the examples of that. Nowadays, they produce it throughout the Amazon and all over the world.

The returns are very different, and I think that touches very much on the key transformation that we need to rethink. We see in the idea of an extractivist economy for the forest regions of the world, particularly the tropical forest regions of the world, that value is aggregated elsewhere. There are significant economic benefits that an economy like Acai has brought to the local populations. I’m away from not saying that. But more and more, it is a smaller share of a billion dollar, two billion dollar economy, that rests with the population that produces and rests in the municipalities that need most the income to overcome the development needs that they have. We need to start to change. We need a vision of a different economic alternative, and a transformative economy for forest areas.

That’s very clear when you look under those macroeconomic indicators – this is one of the examples. I have worked and I have students work in many other areas of the Amazon, and the picture is the same. Even in areas where you have production, an active market, and a valuable resource, most of the people are depending on government transfers or different kinds of subsidies as their main source of income. That’s one aspect of it that tells a lot about the vulnerability of these kinds of economy.

But there’s another side of it, which are that the municipalities in which these resources are, they do not capture the rich economy of resources. Acai is an example of that. The municipalities that produce Acai, again a two billion dollar economy, does not capture a cent of that economy through tributary or other forms of value aggregation.
“The municipality that produces Acai, a $2 billion dollar industry, does not capture a cent of that industry.

There is this side to it because the most, the biggest demand on these areas is urban infrastructure. Urban infrastructure is a key element for a lot of the population to cope with climate change issues, to cope with all sorts of other vulnerability issues. Municipalities are always investing to cope with the pressure of increasing as fast as accelerated urban expansion.

The last point that I want to make is a mismatch of expectations. I want to call attention to that because on the one hand you have to recognize the way that indigenous people have gained a voice internationally, the way we appreciate that. But it’s also important to recognize that there is a tendency a lot of the time to romanticize the stewardship that indigenous people have in conserving forest and reducing carbon emissions for climate change.
“Indigenous people have gained a voice internationally, but there is a tendency to romanticize the stewardship of indigenous people in conserving forest and reducing carbon emissions.

Very often, and perhaps too often, the discussion where indigenous populations come into play is to show a contrast between a material and an intangible value of nature. Which is far, very far from the reality and from the lives of most indigenous peoples. But we are very much, I think, moving in some ways to a dichotomy where we try to see those two values as incompatible. And with that, I think we avoid having a discussion about poverty, about the economic conditions in which many of the indigenous communities and many of the local communities that have taken the burden of reducing carbon emissions largely in the last 20 years live.
"We need to give very concrete improvements to the populations that have become such important players in climate change and also, paradoxically, have become the most vulnerable.

Those are some of the indicators coming from research in many places that show that disconnection. We need to pay attention to the economies of conservation that we have put in place, and think about a new phase – I think Carlos [Nobre] touched on some of those key issues.

We need to invest in human capital in these areas. We need to invest in infrastructure in these areas. There is a long history of external investment in efforts to increase social capital. Social capital is very difficult to do externally. As long as subsidies go away, as long as projects go away, those ideas go away. We really need to give very concrete improvements to the populations that have become such an important player in climate change and also, paradoxically, have become the most vulnerable.

Thank you."
Eduardo S. Brondízio is Professor of Anthropology and Adjunct Professor of Environmental Sciences (SPEA) and Geography at Indiana University Bloomington. He is co-director of the Anthropological Center for Training and Research on Global Environmental Change (ACT) and the Chair of the Advisory Council of the Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis at Indiana University-Bloomington. Prof. Brondízio served as chair of the Department of Anthropology from 2005 to 2012.

As an environmental anthropologist dedicated to longitudinal, comparative research among rural populations, Prof. Brondízio’s work has analyzed the transformation of rural areas, households and communities in the Amazon, particularly resulting from the influence of national and global markets, government programs and policies, development projects, and environmental change. His research has documented and analyzed the social and environmental implications of these changes and contributions to the transformation of the region as a whole. Increasingly, this research has paid attention to rural-urban migration and social networks and the evolving institutional, land tenure, and socioecological complexity at the intersection of rural, urban, conservation and indigenous areas in the Amazon. This long-term research program has examined these changes through the development of conceptual frameworks and methodologies integrating geospatial, ethnographic, survey, institutional analysis, ecological assessments, and historical investigation.

Prof. Brondízio is a member of the inaugural Science Committee of the Future Earth program, and has been serving on the Science Committee of the International Geosphere-Biosphere Programme (IGBP) since 2011. He serves as co-Editor-in-Chief of Elsevier’s “Current Opinion in Environmental Sustainability”.

Prof. Brondízio has been engaged with international global changed research programs since the mid-1990s and has contributed to several past and ongoing global assessments and initiatives, including: the Millennium Ecosystem Assessment, UNEP’s GEO-4, the Economics of Ecosystems and Biodiversity (TEEB), the United Nations Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services (IPBES); the Global Forest Expert Panels (GFEP) on Forests and Food Security (IUFRU, FAO), and the Thematic Group on Forest, Oceans, Biodiversity, and Ecosystem Services (FOBES) of the United Nations Sustainable Development Solutions Network (UN-SDSN).

Prof. Brondízio has held visiting scientist and professorship positions at the Université Sorbonne Nouvelle – Paris 3, Institut des Hautes Etudes de l’Amérique Latine, the Institut d’études avancées (IEA), and the Laboratoire d’Anthropologie Sociale, Collège de France, Paris, France. The Universidade do Vale do Paraíba (UNIVAP), S. J. Campos, Brazil, and the Swedish Agricultural University, Department of Rural Development, Uppsala, Sweden.
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Cheryl Palm
Director of Research, Agriculture and Food Security Center, Columbia University, on agriculture

Carlos Nobre
National Secretary for R&D Policies, MCTI, Brazil, on climate variability

John Holdren
US President Obama’s science advisor, on energy

Pushpam Kumar
Chief of UNEP’s Ecosystem Services Economics Unit, on green economy

Daniel Nepstad
Executive Director of the Earth Innovation Institute, on land use

Cheryl Palm
Director of Research, Agriculture and Food Security Center, Columbia University, on agriculture

Carlos Nobre
National Secretary for R&D Policies, MCTI, Brazil, on climate variability

Transcripts and videos are also available for the other speakers at the Colloquium on Forests and Climate:

cifor.org/colloquium