



*Memoria*  
*International Forum*  
**Landscape Restoration, Governance and Climate Change**

**February 17<sup>th</sup> -18<sup>th</sup>, 2014**  
**San Salvador, El Salvador**



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## Introduction

In Central America there is no longer any doubt about the impacts of climate change on territories and their infrastructure, productive systems and the vulnerability of local populations. The International Forum on Landscape Restoration, Governance and Climate Change is part of a joint effort led by Fundación PRISMA in coordination with the Central American Integration System (SICA) the Ministry of the Environment and Natural Resources of El Salvador, the Forests Program by the World Bank, the Global Water Initiative and the Climate and Development Partnership with the purpose of promoting a space for dialog, analysis and exchange of experiences relative to the approach and outcomes of landscape restoration and strengthening territorial governance in the context of climate change.

The International Forum convened a series of well-informed actors with frameworks and approaches, lessons learned regarding the landscape approach and its relevance for the Central American challenges arising from climate change. Cases like the ones from China, Rwanda and Ethiopia presented by the documentary film-maker John. D. Liu, and different approaches and experiences presented by the World Landscape Forum, Fundación PRISMA, Ecoagriculture Partners, Ecosystem Return Foundation, the Natural Resources Institute, World Bank, Global Water Initiative and Red Solidaridad, among others, that outlined a good part of the state of the art and strategic framework for the landscape restoration efforts as a fundamental pillar for the adaptation, mitigation and strengthening strategies on territorial governance in the context of climate change in Central America.

Besides highlighting the high vulnerability in Central America resulting from climate change, regional processes and initiatives led by the Central American Integration Secretariat and other many Secretariats such as CCAD, CAC and CEPREDENAC were also pointed out as also were existing national policies in countries like Honduras and Costa Rica and innovating initiatives from El Salvador where there is an emerging process to coordinate environmental restoration , which, in the opinion of John D. Liu, could become the next success case in the region and worldwide.

## Monday, February 17: Inaugural speech

### **Hugo Martínez.**

#### **General Secretary of the Central American Integration System - SICA. (Video-conference)**

The SICA countries make up one of the most vulnerable and threatened regions because of its geographical and natural location and because of its high poverty indexes and social deficit. In this context, there are many challenges that must be addressed: the recovery of ecologic integrity of the region and an increase in the response capacity. For Central America, climate change is already a reality, as the impacts associated with this problem (increase of intense rainfall, storms and drought periods) are affecting the social and economic base of the countries, including sectors such as infrastructure, production, health and public finances to name some; this situation which according to ECLAC estimates could represent up to 8% of the regional GDP.



During the Presidential Summit held in San Pedro Sula (2008) the Heads of State proposed the need to advance on a shared agenda on this topic as part of the institutional response, starting with the preparation of the Regional Climate Change Strategy, instrument that sets the norm and seeks to coordinate current and future efforts. A very important aspect is the pressure created by climate change impacts on the fiscal situation of the countries; this is expressed in the high costs of the reconstruction and rehabilitation processes. In this regard, the Secretary stated that the Central American countries hope to count with stronger support from the international community in the near future, to face these challenges.

## Objectives of the fórum

### **Susan Kandel.**

#### **Executive Director of Fundación PRISMA.**

The International Forum “Landscape Restoration, Governance and Climate Change” is a joint initiative that seeks to promote a space for discussion and exchange of knowledge, experiences and lessons learned on landscape restoration, which should also contribute to the development of territorial governance as a critical dimension for the integration into the public policies of adaptation, mitigation and development objectives in Central America.



In this context, the International Forum aims to be a space to share knowledge, conceptual frameworks and analysis that will contribute towards the construction of a protected institutionality and incentive schemes to promote the transformation of degraded landscapes, enhance resiliency to address climate changes and mitigate the greenhouse gas emissions; share practical experiences about more advanced practices being undertaken worldwide on

landscape and territorial governance management and contribute to the establishment of policies to integrate adaptation, mitigation and development objectives.

## Key note Presentation

**John D. Liu.**

**Director of Environmental Education Media Project - EEMP**



The ecosystems and services they provide (air, water, food, etc.) are equally important as the human systems. Currently, the ecosystems are seriously affected by human activities as they interrupt the natural regulation processes and reduce biodiversity. This has caused unimaginable effects. There are common elements among the realities of different countries and continents, despite the geographical and cultural differences, where traditional agricultural practices are a factor that causes a temperature increase, eliminates the fertility in the soil, and accelerates the collapse and malfunctioning of the ecological systems, therefore generating poverty and food insecurity. The reduction of biodiversity – to be understood as the “original sin” – has led to the reduction of biomass, organic materials in the soil and has significantly altered the ecosystems. Given this scenario, there needs to be a new narrative to face the historic degradation cycles in a generalized climate change context.

The restoration case of the Loess Plateau in China has become a reference for the whole world. The Plateau has an extension of 640 thousand km<sup>2</sup>, and in 1995 it was characterized as a dysfunctional ecological system, with a lack of water infiltration and retention in the soil, high levels of erosion and extreme poverty conditions of the population. Based on the evaluations that showed that the sediment control exceeded the restoration costs, they decided to start a pilot project in 35 thousand km<sup>2</sup>, which focused on reducing the incidence of droughts and floods while promoting a change of behavior and productive practices at the local level. The construction of large scale terraces and planting of trees were promoted under an integral approach while they were able to create employment and new sources of income for the local population. The outcome of this work was a significant transformation of the landscape and of the social and economic systems of the area, establishing the base for a model that has already been applied in other countries like in Ethiopia and Rwanda.

A change of paradigms will define the sustainability or failure of civilization. This is why it is so important to understand the ecosystems, how they work, and everything about their natural evolution, to align human behavior with these dynamics. The current economic systems state that wealth comes from production and consumption when in reality, all the goods and services come from the ecosystems. This proposes a challenge to work on the promotion of new values where biodiversity, biomass and organic matter will acquire their corresponding value. By understanding that the ecosystems are central for survival, economy and ecology cannot be understood separately.

*During the current phase of the crisis, restoration is an enormous commitment. Elements such as food security, risk management and employment generation must be promoted to strengthen*

the social capital with an emphasis on young people. The functions of the ecosystems must be revalued in this scheme and the work of the local workers must be recognized; this will facilitate the transition into a more “*ecological era*”. There are people around the world who are willing to assume these challenges and transform the landscapes and their lives, but this requires unflinching support by the public and private bodies.

## Key note Presentation

### **Herman Rosa Chávez.** **Minister of the Environment and Natural Resources of El Salvador**



El Salvador has a series of characteristics that are influential on the landscape and ecosystem restoration possibilities, such as: i) important changes in the spatial and urban distribution of the population, where the latter doubled during the period 1971-2007; ii) transitioning from an agro-exporting economy to an economy of services / remittances with the consequent motivation and growth of the urban economy; iii) strong migratory processes (1/3 of the population living abroad) and the remittances that represent the main source of foreign exchange; iv) expansion of sugar cane harvesting using unsustainable practices, such as burning and the intensive use of agrochemicals; and v) the mangroves (the largest in the country) threatened by clearing of the trees and degradation, but at the same time is the center of attention to multiple local efforts.

Extreme events have intensified in the last few years, reaching limits not previously experienced. The E96 low pressure system associated to Hurricane Ida (2009, Agatha tropical storm (2010) and tropical depression 12E (2011) caused enormous damages and loss (6% of the GDP); an extreme drought event affected the corn production in the eastern part of the country and the losses were estimated at \$35 million. These types of situations are not exclusive to El Salvador, which can be reflected in the first places occupied by the countries in the region – especially Guatemala Honduras, Nicaragua and El Salvador – in measurements like German Watch’s Climate Risk Index. In this way, the variability and climate change worsen the critical conditions of the Central American vulnerability.

In light of this analysis, landscape restoration arises as a strategic response and the restoration experiences that are already underway must scale to higher levels of coverage. For El Salvador, the priorities consist of transforming the agricultural practices with an emphasis on the promotion of sylvopastoral systems, strengthening rural agriculture with archeological options while crops like cacao recover, ensuring the eco-systemic services that come from coffee forests and restoring riverine forests, mangroves and wetlands. This is about an adaptation initiative that has clear climate change mitigation co-benefits, which is known as a focus on Adaptation-based Mitigation (AbM); the first is accepted worldwide by the Forest Carbon Partnership Facility (FCPF).

In the public policies area, the National Ecosystems and Landscape Restoration Program (PREP) is the main climate change adaptation effort in the country and its purpose is to make a radical transformation of the rural landscape to recover the basic functions of the ecosystems

and build better resiliency conditions to address climate change. The goal of the Program consists of restoring 1 million hectares (50% of the national territory). On the other hand, the objective of the National Environmental Policy (PNMA) is to reverse the environmental degradation and reduce the vulnerability and also counts with four strategies: climate change, biodiversity, and environmental sanitation and water resources. The strategic actions are aimed at: i) developing a widespread and intense dialog and communications efforts.; ii) prioritize incentives and support to promote cultural change, collective actions and social coherence; iii) search for the synergies between the adaptation, mitigation, biodiversity, water, risk reduction in case of disaster and combat to poverty actions; iv) support scaling-up of local and promising initiatives; and v) mobilize global funding and accelerate the transition.

## Panel of commentators

**Noel Barillas.**

**Coordination Center for Natural Disasters Prevention in Central America (CEPREDENAC)**

For Central America, climate change represents a very complex problem, as it requires simultaneous actions and interventions from a wide range of sectors. CEPREDENAC has been effecting changes to generate synergies between the environmental, climate change and risk management agendas. Some of the greatest challenges that were identified were the alignment of policies and implementation of strategies. The Central American integration was revived in July 2010 establishing five strategic pillars: democratic security, institutional strengthening, social security, economic integration and risk management and climate change. The Central American Policy on Comprehensive Risk Management (PCGIR) and the Regional Climate Change Strategy (ERCC) form part of the instruments that will contribute to the last pillar.



While the countries of the region have advanced on the reduction of fatalities, it is also true that there has been a significant increase in losses and damages caused by extreme climate events. The climate risk management strategic framework has considered the following main lines: i) prospective risk management, including land management and planning; ii) restoration of the ecosystems with a focus on water security; iii) promote food and nutrition security; iv) new models of physical infrastructure; v) local capacity building, with a focus on education and citizen participation; vi) knowledge management and transfer of technology, by strengthening the technical-scientific institutions; and vii) analysis, systematization and exchange of experiences. Most importantly, the human being is to be placed at the center of all proceedings and linking the national and regional initiatives with global mechanisms such as the Adaptation Fund and the Green Climate Fund.

**Gerardo Segura.**

**Senior Specialist on non Rural Development and Program on Forests (PROFOR) - World Bank**



The problem of the emissions resulting from deforestation and degradation is quite significant in Latin America and the Caribbean (46%; 31% in Central America), while worldwide this is only 17%. The El Salvador experience shows a series of very valuable principles for proposals that seek to address this problem. For instance, the sense of urgency, the priority placed on the local level on the definition of national strategies and policies, a focus centered on adaptation where the agro-sylvopastoral systems are particularly important, conservation of the riparian forests and mangroves and productive and sustainable management of the forests. This responds to the reality of a country with few forestry resources and counts with open and inclusive institutional-building process.

Two funds related to the REDD+ mechanism (Emissions Reduction resulting from Deforestation and Degradation) are managed through the World Bank: the FCPF that was assigned with 258 million dollars to finance the preparation activities; and the Carbon that was assigned with 390 million dollars, which are available to pay for any advancement of the strategies. However, a series of challenges need to be addressed for the implementation to be effective, such as: i) definition of the land tenure rights and use of natural resources to include carbon; ii) recognition of the local stakeholders and their participation; iii) existing weakness in the regulatory and institutional framework; iv) limited coordination and need for greater sectorial harmonization; and v) scaling-up of the experiences and initiatives. To overcome these challenges it will be necessary to have an institutional-building process to allow for effective linking of the different landscape scales, such as clarity and security in relation to land tenure and forests, together with greater regional and global coordination and cooperation.

**Bob Winterbottom.**

**Director of the Ecosystems Services Initiative, World Resources Initiative (WRI)**



Around the world there are currently many ongoing efforts to reverse degradation. All of the proposed challenges could be addressed around opportunities which requires - among other actions - the transformation of production systems and design of incentives for the people that protect and manage the natural resources in a sustainable manner. Moreover, when defining the priorities and selecting the actions plans these must include multiple levels as was proposed by PREP of El Salvador, even though we recognize that this will require attraction of external funding. The World Resources Initiative is helping to promote the "Landscapes for the people, for food and nature" initiative, which is an effort that seeks to respond to socio-economic and environmental needs.

The new types of interventions must be characterized by the search of innovating communication alternatives, exchange of experiences, scaling-up based on the incentives that will harness the actions; clear rules who holds the rights over the resources (recognition,



valuation, compensation); and transparent governance processes. To facilitate this, the local actors have a strategic role to play when promoting mobilization “from the bottom up”, which will need policy changes at the national levels.

**Paul Hicks.**

**Water Resources Coordinator for Latin America and the Caribbean Region, Catholic Relief Services (CRS)**



Central America counts with emblematic cases – such as Lempira Sur – that in technical terms, show clear solutions regarding the options that could work in other parts of the world. The new challenge is how to go from ideas and examples to a broader movement to promote change of the traditional paradigms and practices. During the past decade, the “green water” concept has changed the way to understand the water balance, where water that is found in the soil becomes very important; this means a change of the traditional approach. Although most of the investments are concentrated on surface water, this new trend points towards soil restoration. Ideas like the ones from Elinor Ostrom and others to empower the local population, undertake collective actions and link the governmental actors will function to achieve this. To continue using chemicals on the soil will only worsen the degradation situation. Advance on new frameworks – thought and actions – requires having a new narrative to adjust the political and social agenda and rethink the economic model. Because of the impending sense of urgency, the strategies must go beyond the environmental aspect to turn into economic and development options. Another key aspect would be to prioritize the actions and places, keeping the limited availability of the resources in mind.

### Dialog among participants

The metaphor of the destruction of biodiversity as the “original sin” is useful when proposing the recognition of other “original sins”, which are equally important for the configuration of the current crisis and must therefore be addressed as comprehensive solutions. Noteworthy is the power concentration and increase of inequalities which raises the discussion between an authoritarian environmentalism and in contrast the promotion of governance processes based on participation and the establishment of agreements. This comes from the recognition that in unequal societies there is less will to invest on ecosystems and landscapes restoration and that today’s complex socio-environmental problems require having equally complex solutions.

Another one of the topics that was addressed is the relation that exists between the ecosystems and the levels of production and consumption. One of the challenges consists of reaching a balance between the production of food and the demands associated to the population growth. In this regard, it was noted that the environmental problem is not the lack of knowledge, but the lack of ethical principles and alternative socio-economic models therefore requiring approaches centered on a new culture where man creates a relationship with his natural environment. The creation of a new restoration culture, agricultural extension and financing will be key aspects to achieve greater progress.

The agricultural extension plays a fundamental role; it also requires that the role be rethought based on hiring local extension workers who are conscious of their reality, as a way of promoting social and political control. Similarly, the issue of inequalities should reconsider how incentives will be designed with an emphasis on those that facilitate cultural changes, collective actions and strengthening their rights.

For El Salvador, the implementation of a REDD+ mechanism following market logic is not viable, therefore an approach such as AbM is particularly relevant for the national proposal. The country's current conditions demand restoration strategies that promote transformation of the agricultural landscapes.

In this entire context there is a great need to change paradigms in food production, favoring diversified agriculture over industrial and single-crop farming, because the first offers the advantage of being able to grow their crops throughout the whole year. It will also be necessary to rethink about the production and consumption habits because there is sufficient information and communications available to be able to advance in that direction. At the same time, the efforts from the communities and local leaders need to be better valued and they need to be compensated for their restoration activities.

### Panel: How did this occur?

**John D. Liu.**

#### **Video about the landscape restoration process in China, Ethiopia and Rwanda**

It is possible to restore large-scale ecosystems. In China they achieved it by paying the people. In Rwanda, the government decided to link their economic development with their environmental development in a comprehensive strategy that emphasized sustainable development: promoting renewable energies through land management and landscape restoration, guaranteeing land tenure security and a greater investment and care of the soil. The government did not wait for financing to act, but it became prepared to take advantage of emerging international cooperation opportunities.

**Willem Ferwerda, Ecosystem Return Foundation.**

#### **How can the private sector invest in landscape restoration?**

Ecosystems degradation has four types of losses: economic, employment, biodiversity, hope. Similarly, there are five constraints that prevent the achievement of systemic solutions: i) the economic value of the ecosystems is not fully understood and externalities are not accounted for; ii) lack of long-term vision; iii) excessive specialization and sectorization that makes the actors work in an isolated manner; iv) local communities continue using the same practices which, unknowingly, are harmful; and v) frequently solutions are made too complex when there already are tools and techniques that are easy and simple to understand.



It is necessary to find a common language between entrepreneurs and investors who are interesting in restoring the landscapes, such as a model they can understand. What every

investor asks is, what return will I receive?, is there an exit strategy?, they ask if earnings are in the two digits and of course, what is the risk? Investors talk about four types of returns: the first, financial return, which is not measured in two digits but one; second the return of social capital; third the return of natural capital and fourth, the return of inspirational capital; in other words, the return of hope, of inspiration.

The four returns must be functional in a context of three zones: A percentage of natural area, which needs to be kept that way for many centuries; a zone where there is an Eco-agro Mix, where the soil is restored, wherever possible, the eco-systemic functions and productive zones dedicated to agriculture, cattle breeding, etc.

The investors who could initially be interested in restoration are the family investors. Long-term relations could be established through investment funds. It is best not to work with short-term investors. Experience shows that financial gains with restoration undertakings are not double digit gains, they are only of one digit and at a 20-year period. One must be sincere about this.

### **Seth Shames, Ecoagriculture Partners.**

#### **Lessons about financing and implementation of integrated landscape initiatives.**

Several studies have been made to identify the mechanisms and strategies used by the Integrated Landscape Initiatives (ILIs) to have access to funding. It has been found that there are two types of investment: investment in assets that seeks the creation of tangible value, creating private assets; and investments in enabling conditions, in other words on the generation of incentives to invest in restoration. There are different motivations for different types of investors; it is a spectrum that goes from looking for a purely financial return, up to the public sector, focused on fundamentally social returns.



The main challenges existing to link financing options with the ILIs are the lack of coordination and integration through the sectors which are the ones that use the resources and ecosystems; insufficient capital with “patience” to make long-term investments; the difficulty to communicate the investment potential and the lack of instruments to mitigate the risks involved. The following recommendations are therefore posed: i) increase enabling investments for the ILIs; ii) continue to spread the word about investment possibilities in the ILIs; iii) reduce investment risks by having innovative public policies and financial mechanisms; iv) make alliances between the investors and the restoration “stakeholders” ; and v) integrate sectorial planning into the landscapes.

## Dialog among participants

The restoration processes are a long-term process. Which would be the success factors that ensure concrete results?

Ecosystems restoration offers immediate returns and others, are accumulative. In several experiences, the fundamental incentive has been the simple fact of this being the only option to recover food security. If there is water, the incentive is to have water. The key is to restore the functionality of the ecosystems.

Keeping the degradation costs in mind, such as costs of sedimentation, or the benefits for the recovery of biodiversity or soil productivity, then the earnings are high. More people can be making agriculture and paradoxically, there are many unemployed persons. Employing people for restoration purposes is a better option than offering food assistance. Food assistance was taken to Ethiopia in the 80's during the famine, which affected the production and agricultural markets.

What do you mean by investment? It is absolutely critical to clarify this question. There are different types of investors. There are small land owners who are based on the local economy. There are industries that are interested in investing in their own chain. There are others who manage other people's money through investment funds. These investors could enter into different phases of the restoration initiative financing process. It will be necessary to make public-private partnerships. In any case, the key is to identify the gaps and create incentives so that the investors can go where no-one is operating, as it occurs with restoration.

Normally, risk is either reduced or transferred. In each of the cases, there is no single answer and it then becomes necessary to seek for what is fair and appropriate. The remittances could play a role in the restoration process. The returns of inspiration could be used in Central America to attract migrants to invest in restoration.

## Panel: Challenges and opportunities to invest in landscape restoration in Central America

**Deborah Barry, Director for Central America of the Global Water Initiative, Catholic Relief Services (CRS)**

**How to achieve the necessary scaling-up and institutionality for landscape restoration?**

The start of the National Program for Restoration of Ecosystems and Landscapes (PREP) offers several learnings: landscape restoration cannot be achieved by the central government without coordinating with the local institutions; generally, the approach of the projects remains at the farm level and very few times do they go beyond to the landscape levels; the restoration process is iterative between three levels that include the central government, the local stakeholders and a "meso" level that links these together accordingly.



The basis is indispensable as a technical unit but sometimes it is far too big and the people are unable to coordinate. The landscape is a space that is socially built, at a scale where people have to decide, because that's the one that can enable the changes. The core of the proposal is the agricultural producer and the challenge is to build governance.

The "meso" level could be the commonwealth of communities, to gather information, promote collective actions, help the central government and monitor the impacts in a participative way. The central government can provide studies from experts, trend analysis and framework planning criteria, among others.

**José María Bonilla, Director of the Instituto Técnico Comunitario de Candelaria, Lempira Sur, Honduras.**

**Institutionality regarding landscape restoration in Candelaria, Lempira, Honduras.**



During the mid-1980's, the territory of Candelaria located in the south in the Department of Lempira, was going through an environmental degradation and food insecurity situation. The population was emigrating. There was a 70% illiteracy, only one health center and very high rates of maternal and child mortality.

Several institutions worked for more than ten years and were able to expand the agroforestry system of *Quesungual*, increasing the humidity of the soil which was key for increasing productivity. These left a local installed capacity at the municipalities and at the Community Technical Institutes. Now there is greater access to education but they also face challenges on how to obtain greater added value of the diversified production which has been obtained, how to regulate the use of agrochemicals and promote sustainable livestock production.

**Carlos Zelaya, Expert in Rural Development, Honduras.**

**How to achieve the necessary scaling-up and institutionality for landscape restoration?**



To paraphrase José Elías Sánchez, Honduran farmer who is pioneer of agro-ecology one can say that "*if the farm is a desert, the landscape will be a desert*". The change at the farm and scaling-up the landscape is a slow process. There are some key recommendations for this: on the job training and base work on science; respect human dignity; innovation at minimum costs with local resources; share what you have learned; create personal and community satisfaction; innovate based on spiritual wisdom.

Development needs to be orderly and balanced between human, social, natural, physical, financial, political and institutional capital. A positive environment has an impact on the scaling-up of the farm to the landscape. There are factors that are internal to the territory and there are also external factors. Some of the internal factors: the critical mass of innovating leaders; organization; access to land; municipal policies and immediate results. If no immediate results are obtained, then there is disappointment. Some of the external factors of the territory: programmatic flexibility, political and financial support; a permanent reflection

space; working methodologies adapted to the conditions; and a differentiated technical offer (the agricultural bonds have come to distort the family farming).

Risk management needs to be done to avoid distortions in the process. These risks could be internal or external. Some of the internal risks are: antagonisms; and non-consolidated organizations that even require leadership training based on the principles of democracy. Some of the external risks: the lack of support from the territorial authorities and lack of monitoring and accountability.

**Ileana Gómez, Fundación PRISMA.**

**Collective actions on restoration: Cases of Lempira Sur, La Montañona and Bajo Lempa.**



There are three levels of eco-systemic service management: management for self-supply of families; management for income generation and management for the provision of eco-systemic services related to landscape restoration.

In the case of Lempira Sur, the landscape restoration was the result or co-benefit of actions that were taken at the farm level to improve the peasant family's self-supply. Collective actions were promoted to achieve this, and regulations were applied to eradicate the use of fire; also a local extension and training system was established and the local social capital was upgraded.

In El Salvador, the landscape is dominated by a land tenure regime where individual properties prevail. Due to the agrarian reforms, the security of the tenure facilitates the adoption of practices that require a temporary long-term scale but only for 50% of the agricultural producers. The other 50% rents out the land and works according to the patterns defined by the land owners. Landscape restoration requires agreements between owners and lessees, with shared benefits.

The importance of the critical elements necessary for landscape restoration is highlighted from the cases that were analyzed; A multi-level and long-term institutionality; different types of incentives, compensation and regulatory systems; strengthening the management skills of the local stakeholders; decentralized knowledge systems; and financial instruments to accrue funds from the State and from cooperation.

### Dialog between participants

Territorial governance is a key issue. New institutionality for land management needs to be considered. In the case of El Salvador, the municipality is the one that has the authority to manage the land locally and also, the municipalities are very zealous of their autonomy. The mandate from the MARN allows it to promote its vision, taking into account the interests of the local governments.

A similar dilemma arises from the use of different spatial categories: basin, landscape, territory, and each one with different constructions: biophysical and eco-systemic (holistic);

historical and social. We can have similar landscapes in different basins, but there needs to be a comprehensive landscape analysis to identify the intervention strategies. To think “beyond the landscape” and to begin to think in “territorial nesting” is key to integrate the different elements (geography, politics, ecology, culture and economy).

The commonwealths can participate by channeling public and private investments. The remittances may influence in the landscape by changing the patterns on the use of the soil, but they can also generate demand for local products and become the motors of the local economies.

The local governments or commonwealths must be prepared to manage the landscape to reconcile the projects that respond to their own plans and to respond to the technical needs of the local producers. The main request by the local governments to participate in the restoration is to receive technical assistance.

Tuesday, February 18

Panel: Challenges and opportunities to invest in Central America for landscape restoration

**Mario Samper, Regional Specialist in Sustainable Rural Development, IICA-ECADERT**



Regionally, there are ongoing institutional efforts to grant the strategic nature to landscape restoration associated with family farming, climate change and territorial development similar to the Central American Territorial Rural Development Strategy (ECADERT), where its purpose is to build the institutional policy and strategy development framework at different scales: supranational, national and territorial/local; inter-institutional coordination and to coordinate organizations and agencies; shared opportunities, consensus between territorial actors, territorial governance and resource mobilization.

By the same token, the Central American Dry Corridor Initiative is set to become the territorial unit where they can develop these types of approaches, coordinating a series of converging multi-key proposals and promoting concerted climate change mitigation and adaptation actions that guides the rural development processes with a territorial focus.

**Roberto Codas, President of the Continental Supervisory Board Solidaridad Network.**



The key role of the entrepreneurs is stressed as being the drivers of society because of their highly innovative and creative function, mainly in solving urgent problems such as: water scarcity, climate change and poverty. The business sector must evolve; they need to leave their purely philanthropic functions behind and need to integrate into the social organizations in a transformation to reach sustainable and inclusive economies.

The challenge is big when one tries to link different actors to the productive chains, particularly in the main export areas in Latin America such as coffee, cacao, pineapple, textiles, livestock farming, aquiculture, etc., that forms part of the search for greater advantages working together with multi-actor platforms.

There needs to be a more adequate and intelligent use of the natural resources like the soil, based on the local and national conditions, to achieve greater eco-efficiency, as is the case with the Horizontes Rurales project, that builds excellence landscapes in the Argentinean Chaco region, by adopting optimized systems at the farms and through the creation of ecological and social corridors outside of the farms. A facilitator or enabling environment needs to be created at the same time, to comply with the legal framework and obviously with the tools of the market.

Lastly in this effort, the greatest challenge is not in the economic area, but in the ethical environment, as the purpose of the human beings is to give sense to the future through adequate resource management and adequate decision-making processes regarding the intervention of the natural processes.

**Tuukka Castren, Department of Agriculture and Environmental Services, PROFOR-World Bank.**

The World Bank has consolidated its triple role on landscape restoration: to be a source of funding, a knowledge-generating institution and a multi-actors platform, thanks to its convening force. The goal is to eradicate extreme poverty and promote shared prosperity, representing the climate change issue as a clear obstacle that needs to be sorted out and it is definitely a central part of the Bank's support. It is important to note that when talking about climate change, adaptation and mitigation are being included at the same level.



It is notorious to see the World Bank's diversity of projects on issues related with landscape restoration; their topics range from planning on the use of the soil, to zoning, tenure rights, change of cultural practices more related to community development, and it also refers to initiatives from the private sector on investment attraction, profitability in the forestry sector and scaling-up issues.



### Abby Hart, Ecoagriculture Partners –Cornell University.



The Initiative of Landscapes for the People, Food and Nature (LPFN) contains the position of the Global Landscapes Forum relative to the inclusion or emergence of a focus on landscapes and its role on climate change, recognizing the landscape as a promising approach to orient and organize climate change adaptation and mitigation and also recognizing agriculture and forestry.

The Initiative seeks to link the high level policies with the landscape stakeholders with the purpose of promoting learning and to share experiences from diverse communities and types of practices. In this context, this Initiative has already executed 104 studies of integrated landscapes in 21 countries on issues such as conservation, agriculture, livelihoods, planning and institutional coordination.

Some of the findings show that conservation is the main motivator anytime a project of this type is to be carried out or whenever there are integrated landscapes (ILI) then it highlights the prominence of the farmers' association, leaders of the local governments and NGOs in Central America as implementers of the ILIs, given that it is these types of actors that consider it fundamental to reduce risk and vulnerability and to mitigate or adapt to climate change.

### Dialog between participants

It is clear that there is a need to include an approach that comes from the peasant or indigenous organizations for any project or program that will impact the territories, and it is a priority to strengthen the social organizations that work on territorial management and also to have the mechanisms in place to promote participation in the communities. This means there needs to be a decided contribution to improving governance of the resources that are in play in the territories. In the case of ECADERT, for example, it has been the peasant, indigenous and afro-descendant organizations the ones that have been in charge of promoting strategy formulation.

It is obvious there is great difficulty when merging the private sector and the social organizations within the restoration objective; it is very difficult to find common points between both sectors where even the attitudes are so very important when it has to do with looking for common grounds that will stir up greater involvement by the private sector in restoration actions. It is fundamental to have incentives in place as an enabling condition to promote landscape restoration activities, but these will depend on the conditions of each of the countries or places and must be governed according to the outcomes that want to be encouraged or promoted.

## Panel: Moving towards commitments for restoration and governance

### Lina Pohl, Vice-Minister of the Environment and Natural Resources of El Salvador.



There have been severe impacts of natural hazards associated to climate change in El Salvador. In the face of this situation, MARN has assumed a clear commitment to reduce risk through strong and coordinated management. One of the programmatic commitments for the 2009-2014 periods was the short-term reduction of climate risk and restoration of the degraded environmental zones, based on an approach that would make it possible to adopt measures to reduce climate risk in the medium and long terms.

On restoration issues, progress occurs by achieving greater coordination at different levels: in the MARN agenda, the efforts face towards a restoration logic even with relevant sectors such as the sugar cane producers, leading the discussion forward on critical issues regarding cultural practices for that type of crop, where they continue to burn the land, using agrochemicals, expansion, waste, greenhouse gases and lastly coordination of large national projects through the environmental and strategic environmental evaluation directives that can guide aspects such as environmental sensitivity, zoning and environmental management.

In line with the above, MARN has created the National Ecosystems and Landscape Restoration Program, to coordinate the different work units of the MARN and have a territorial approach that encourages governance, dialog processes with the local structures to implement restoration actions and direct management and promote the design of projects where the degradation analysis comes from the local structures.

However, this current administration recognizes that the environmental topic has not been developed in a greater manner in the political and cultural environment, the degree of awareness that the country needs to have to realize the urgency that effects of climate change are having and that this demands making transformations in the economy and within society.

To finance restoration requires strong public and private investments. There needs to be environmental awareness and there also needs to have incentives and compensations in place to encourage a change of practice by the population living in the territories. The El Salvador Environmental Fund has been identified as a strategic partner for the environmental and water compensation programs; however, it is still waiting for climate and cooperation funds which have yet to be received to finance the restoration. All sectors must give special attention to the importance of joint responsibilities in social and environmental management and the topic of restoration can offer great opportunities as long as it is included as part of the national development agenda and that it is not exclusive to MARN, who executes it by mandate; it is therefore absolutely imperative to encourage dialog with the private sector.

**Mariano Jiménez, Technical Director of the Food Security Unit of the Presidency Honduras.**



This approach centers on the issue of food and nutritional security, mainly within the Central American Dry Corridor, Honduras chapter, as this is a zone that is characterized for its high extreme poverty indexes and chronic malnutrition with the aggravating factor of experiencing long dry periods that lead to losses in the agricultural sector. In that regard, the objective of the Honduras Partnership for the Dry Corridor (ACS for its initials in Spanish) is to put a stop to poverty and malnutrition, by improving incomes in the rural areas, the nutritional status and design and plan production in these territories. This will be undertaken in coordination with the Country's Investment Plan for the Agrifood Sector (PIPSA for its initials in Spanish) and the National Food Security Strategy that coincide on the poverty reduction goals through continuous growth of the agricultural sector and improvement of the agricultural infrastructure.

Thankfully, the Partnership for the Dry Corridor is made up of partners committed to the development of the territories: the Government of Honduras, European Union, World Bank, the US Agency for International Development (USAID), the Central American Bank for Economic Integration and the Canadian Cooperation Agency. Another important partner is the Global Agriculture and Food Security Program (GAFSP), which aims to address the lack of funding in the country and regional strategic investment plans in agriculture and food security, which are already underway in the countries.

The ACS intends to scale-up integrated and market-oriented investments, food security and environmental sustainability that have been successful in the past and will center in the areas with greater poverty. Some of the main components are agricultural productivity, access to markets, non-agricultural work, access to financing, infrastructure, quality and diet diversity, access to water and sanitation and monitoring and evaluations.

**Roberto Azofeifa Rodríguez, Head of the Sustainable Production Department from the Ministry of Agriculture and Livestock of Costa Rica.**

During the eighties, the Costa Rican agricultural sector underwent a severe crisis resulting from the depletion of the intensive livestock farming and agricultural export productive systems. From then on, they began making changes that were aimed at having better coordination between environmental and productive interests. During the nineties, they were able to reach the achievements on the recovery of lands that had been deforested for livestock production.

Laws were established during the last decade to encourage sustainable production and organic agriculture that shows the recognition of own environmental benefits from the agricultural sector. Currently, the neutral carbon declaration has become a moving force for the public and private sectors where the ministries of the environment, economy and agriculture take decisions by consensus to this regard. The key concept is Eco-Competitiveness, which is divided into three areas: social to promote greater opportunities and a better quality of life; environmental, as it decreases the environmental



impacts and increases de environmental benefits; and economic, which increases the net family incomes.

Under the carbon framework, there are companies that wish to form part of, or to be declared carbon neutral and they are willing to compensate the agricultural sector. For example, the Central Bank has signed a contract with the MAG to compensate the livestock farmers that have complied with their commitments.

**Christa Castro, Executive Secretary, Central American Environment and Development Commission (CCAD).**



CCAD is the Central American institution that guarantees comprehensive disaster risk and climate change management. Since 2010, the region counts with a Regional Climate Change Strategy (ERCC for its initials in Spanish) which is a series of supranational directives to be implemented according to each country's context. This strategy counts with five different areas: vulnerability and climate change adaptation and risk management; mitigation; capacity building; transfer of technology; and international negotiations and management. Additionally, it has other regional instruments that accompany the ERCC, such as the Regional Agro-environmental and Health Strategy (2009–2014) between CCAD, The Council of

Health Ministers from Central America (COMISCA) and the Central American Agricultural Council (CAC); The Central American Policy for Integrated Risk Management (2011) in coordination with the Coordination Center for Natural Disaster Prevention in Central America (CEPRENAC), The Regional Council for Water Resources (CRRH) and CCAD; and the Land Management Charter (2011) in coordination with the Central American Social Integration Secretariat (SISCA).

Some of the challenges for CCAD are the establishment of synergies at all levels; for instance, between the actors from the national and local governments involved in the implementation of actions at the territorial level, with the ministries of the environment, agriculture, economy, health, etc., and between cooperating agencies, such as NGOs, public-private partnerships and all of those that are involved in the implementation of actions in the territories.

### Dialog between participants

There is a need to create a “*new language*” that makes it easier to understand and that creates awareness regarding the need to bring the funds and financing towards the Central American region to be used for restoration, governance and in the fight against climate change. The goal should be to coordinate efforts between all and to make use of the dialog spaces with the public and private sectors and promote changes.

Additionally, the restoration efforts need to have greater participative by the different stakeholders. It is essential to include the private sector as one of the key actors given that this is a fundamental sector for the achievement of rapid transformations, solving water conflicts, controls the expansion over forests and mangroves, etc., especially in view of the increase of

industrial single-crop farming that has caused so much distortion in the Central American landscapes.

Climate change forms part of the agendas of the different governments and stakeholders of the region. In view of the new realities, where El Salvador is a borderline case, there needs to be a change of paradigms. On addressing climate change, the region is faced with the urgency of making radical changes, where landscape restoration should play a fundamental role but for this, it becomes necessary to involve the different sectors, public, private, non-governmental, etc., with efforts and initiatives that can no longer be delayed.



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