SUBMISSION BY PANAMA ON BEHALF OF THE AILAC GROUP OF COUNTRIES COMPOSED BY CHILE, COLOMBIA, COSTA RICA, HONDURAS, GUATEMALA, PANAMA, PARAGUAY AND PERU

Standing Committee on Finance´s Forum "Financing for Nature-Based Solutions"

Following the invitation by the Standing Committee on Finance, the AILAC group of countries welcomes the opportunity to provide views on the organization of the SCF´s Forum on "Financing for Nature-based solutions", as follows:

Scope and purpose of the Forum

From AILAC´s perspective, this Forum could help understand how the implementation of Nature-Based Solutions (NBS) has an added value for mitigation and adaptation purposes in the context of climate change, as well as for nature protection and for the human groups living in them (in the urban and rural spheres), focusing specifically in the long-run sustainability of these measures and the demonstration of their environmental, social and economic benefits.

It would also be desirable to discuss how the implementation of NBS take on board the different perspectives of social groups (e.g. farmers, indigenous peoples, women) to guarantee a continuos flow of financial resources.

Hence, it would be ideal to share information and showcase lessons learned and good practices over:

- Financial options available to NBS implementation, including mainstreaming NBS in national budgets, new forms of financing and effective access to resources
- Entrepeneurship and green jobs
- Incentives for nature conservation, including for marine and coastal ecosystems
- Mainstreaming of NBS in sectorial policies

We would suggest in particular, the following topics for the different agenda areas of the Forum:

- ✓ Introduction of a conceptual framework for the definition of NBS, including with regards to criteria to determine which projects can be considered NBS
- ✓ NBS and its integration in national budgeting and fiscal policies for mitigation and adaptation at the national level
- ✓ Opportunities to leveraging NBS initiatives under existing local and national regulatory frameworks, as well as how to overcome obstacles, challenges and risks for their implementation under these frameworks, taking into account limitations of resources and the need to address diverse issues (climate, conservation of ecosystem services, economic and social needs)
- ✓ Scaling-up successful local initiatives to cross-sectoral public policies in designing and implementing national NBS agendas

- ✓ Effectively engaging and providing guidelines to private sector not only in the financing but also in the implementation of NBS, also as a business case to the sustainability of their productive activities.
- ✓ Creating positive incentives to foster financing and the implementation of NBS, considering the scaling-up of successful mechanisms that could create alliances at the national (public-private) and international (cooperation and blended finance) levels.
- ✓ Engaging strategic stakeholders (public, private – including commercial banks and project developers, civil society and academia) for the design and implementation of NBS
- ✓ Building on traditional knowledge and the key role of indigenous peoples and local communities in the conservation and sustainable use of biodiversity to strengthen their contribution and joint work with State institutions.
- ✓ Intelinkages between NBS and REDD+
- ✓ Interlinkages between NBS and National Biodiversity Strategies
- ✓ Interlinkages between NBS and ecosystem based adaptation approach
- ✓ Interlinkages between NBS and NAPs
- ✓ Exploring the potential of NBS for post COVID-19 recovery in terms of income generation, especially for rural communities; food security; and sustainable agriculture.
- ✓ Identifying the role of NBS for preventing the outbreak of new viruses and other diseases such as vector-borne diseases.

As a result of the Forum, the SCF could provide specific recommendations to be considered in on-going processes, such as the negotiation of the global biodiversity framework post to 2020 under de Convention on Biological Diversity, and provide contact information for further exchanges and cooperation, hoping to follow-up on the progress of those recommendations and exchanges.

Case studies

Costa Rica and Paraguay would be willing to share their NBS case studies as part of the SCF Forum, hereby being described:

Costa Rica

- **Costa Rica Livestock NAMA**: Its main objective is reducing GHG emissions from bovine livestock and increasing carbon capture in farms through the adoption of new technologies and practices including rational shepherding to reduce emissions from enteric fermentation, live fences, grass and fertilization improvements and increasing forest coverage. A financial mechanism was created with the national development bank system for its implementation.
- **Costa Rica Coffee NAMA**: Its main objective is to transform the coffee sector to produce, process and comercialize low-emissions and resilient coffee with innovative practices inluding resistent varieties, recommended sources, soil management and optimization of fertilization. A financial mechanism was created with the BCIE and the NAMA Facility for its implementation.
- **Program of Payment for Environmental Services**: The Government certifies forest and forest plantation owners for the environmental services they provide and its direct impact in environmental conservation and improvement. This program will be relaunched this year with a broader ecosystemic approach including private and public forests, forest plantations, wetlands, forest grazing systems, agricultural farms, soil recarbonization, among others.

- **High Ambition Coalition for Nature and People**: Costa Rica and France lead this Coalition with the aim to protect 30% of marine areas and 30% of terrestrial areas of the Planet by the year 2030, focused on areas of great value to deal with both biodiversity and climate change global crisis. Colombia and Chile also take part of this Coalition.

For more information on Costa Rica´s case studies please contact Mr. Roberto Céspedes, Advisor for the Department of Sustainable Development and Environment at the Ministry of Foreign Affairs, rcespedes@rree.go.cr, +506 2539 5570.

Paraguay (Water Management in the Paraguayan Chaco)

Nature-based Solutions encompass a wide variety of climate change adaptation and mitigation measures by conserving the environment, creating habitats for endangered species, and reducing carbon emissions. They include a number of innovative approaches such as Ecosystems Based Adaptation (EbA). The EbA concept, as it is well known, refers to: "the use of biodiversity and ecosystem services as part of a global adaptation strategy to help people adapt to the effects of climate change" (Convention on Biological Diversity, 2009). Examples of the benefits of SbN include water security, as they maintain and improve water quality, flow rates and aquifers recharge, thus reducing also the impact of floods.

In that context, in the Chaco region, the Paraguay River and the Pilcomayo River, which border this region, are the only water bodies that have water throughout the entire year, since many of the channels and sources are only temporary. The main source of water in this region is underground, however, the presence of salts among the sediments of most of the springs seriously limits its use, and many of these sources are exposed to contamination or exhaustion due to bad practices in their use. Although the number of inhabitants is one of the lowest in the region, even with this density, there are serious water problems for the consumption of people, and the most vulnerable people are more affected, who in long periods of the year must be subsidized with water transported in water wagons from distant places. In that sense, reference is made to four experiences of water management in the Western Region of Paraguay:

i) Water collection system in Collection Surfaces;
ii) Water collection system of the municipalities of *Irala Fernández* and the community of *Campo Aceval*;
iii) Experiences of planting and harvesting water from the Mennonite Cooperatives; and
iv) The use of solar energy, through solar panels, in pumping water intended for human consumption in isolated communities.

The Paraguay River Aqueduct Project –cities of *Puerto Casado, Loma Plata, Filadelfia, Neuland, Tte. Irala Fernández, Lolita*, whose objective was to provide drinking water for human consumption, benefiting some 70,000 inhabitants at the start of the operation, of whom 40,000 are from indigenous peoples of the Central Chaco. The project considers the purification in *Puerto Casado* and the initial pumping of 13,000 m3/day (13 million liters per day) of drinking water to the Central Chaco, through a 202 km main aqueduct and pumping systems.

The water collection system of the municipalities of *Irala Fernández* and the community of *Campo Aceval*, was one of the options that has been used with relative success for the collection of water for consumption, as well as for productive uses. This project consisted of the collection and storage of rainwater in catchment areas called ridges, through which the water is channeled to a *lung water reservoir* from where it is then

pumped, with pumps that use energy generated by windmills, to another reservoir called the Australian Tank. The system offers several advantages such as: better collection, up to 60-65% of the rain, in normal times, a rain of 100 mm, the surface harvesting system captures 80% of the rainfall, with this surface collection system of water 2.5 m3 of water is gained for every m3 of earth removed, and the cost per liter would be 2 Guaraníes (Paraguayan currency).

On the other hand, in the Central area of the Chaco, specifically in the Mennonite community, most of the surface water used through a system in the use of *paleocauses* (paleochannels) and burial of rainwater and subsequent pumping, the importance of which constitutes the formation of usable groundwater. The hydrogeological characteristics of the *paleocauses*, allow the practice of artificial recharge by infiltration and formation of the lens with fresh water in soils with sandy layers in the soil profile to increase the volume of water usable for supply, present functions such as: storage of freshwater in the aquifer with salt water, decrease in the salinity of the aquifer and treatment of the water by natural purification in the subsoil.

And finally, within renewable energies is solar energy, which takes advantage of electromagnetic solar radiation by capturing the light and heat emitted by the sum. In that context, two large solar Parks have been installed in the Paraguayan Chaco with a photovoltaic panel system, whose objective was the implementation of hybrid power systems that take advantage of the potential of renewable energies and guarantee electricity supply through the use of photovoltaic solar energy in insolated localities of the Paraguayan Chaco. Thus, they have become the largest hybrid Solar Parks in Paraguay, which are fully operational, in the town of *Joel Estigarribia* and *Pablo Lagerenza*, generating energy to meet the demand of the military detachments of the 3rd. Cavalry Division *General Bernardino Caballero (Joel Estigarribia* detachment*)* and of the 5th. Infantry Division *Mayor Pablo Lagerenza*, 24 hours a day. Currently, the Hybrid Power System, solar instant water heaters *(termocalefones solares)* and the solar pumping system are in full operation, where a generation of approximately 1400 kWh of electrical power was recorded, according to the remote monitoring system. Through this system, a cumulative saving was calculated to the date of *G.1.724.492.577* (Guaraníes: Paraguayan currency) in fuel expenses, which represents an avoided CO2 of 834 tons in total.

INVESTMENTS

Measures	Status	Costs (U$S)	Financing source and type
Itaipú experience to install solar panels in *Joel Estigarribia*	160 installed panels	256.000	Itaipú (Bi-national entity)
Itaipú experience to install solar panels in *Lagerenza*	160 installed panels	256.000	Itaipú (Bi-national entity)
Planting and harvesting of water from Mennonite Cooperatives in the use of *Paleocauses,* burial of rainwater and subsequent pumping	Installed	500.000	Cooperativa Chortitzer (private)
Aqueduct	Installed	90.000.000	Ministry of Public Works and Communications *(MOPC)* of Paraguay (Public)
Water harvesting system in the communities of *Campo Aceval* and *Irala Fernández*	Installed	231.000	Ministry of the Environment and Sustainable

Measures	Status	Costs (U$S)	Financing source and type
			Development *(MADES)* of Paraguay. (International Cooperation: European Union)

For more information on Paraguay´s case study please contact Mr. Ulises Olvera, National Director of Climate Change at the Ministry of Environment and Sustainable Development, ulises.lovera@mades.gov.py; uliseslovera@hotmail.com, +595 971 702 494.

Also, we consider relevant to take into account the following papers to inform the design of the Forum:

- Cohen Schachman E. et al. (2019). *Core principles for successfully implementing and upscaling Nature-based Solutions*. Elsevier. DOI: https://doi.org/10.1016/j.envsci.2019.04.014
- Cohen Scachman E. et al. (eds) (2016). *Nature-based Solutions to address global societal challenges*. Gland, Switzerland. IUCN. DOI: http://dx.doi.org/10.2305/IUCN.CH.2016.13.en
- IPBES (2019): *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany.

Institutions

AILAC also sees a role in involving the following institutions in the preparation of the Forum:

- Fifth United Nations Environment Assembly "Strengthening Actions for Nature to Achieve the Sustainable development Goals". 22-26 February 2021 Nairobi, Kenya. The Assembly will have core transformative areas including Nature Based Solutions (scope TBC).
- The Global Environmental Facility - GEF, considering its work on fostering synergies between climate change and biodiversity agendas through the implementation of multi-purpose projects and the promotion of a most efficient use of resources.
- IUCN considering their work on the development of the concept, the designing of an operational framework, guidelines and indicators con NBS. They have also huge experience in the identification of successful cases of study.
- Co-chairs of the Open-Ended Working Group for the construction of the post-2020 global biodiversity framework and the CBD Secretariat, considering the role that NBS could play under this framework (which will also contribute to the climate commitments).
- The World Economic Forum in order to enhance the role of business and private sector in the designing and implementation of NBS.
- The IPBES experts that could be able to provide additional explanation on the role of NBS to address biodiversity, climate and sustainable development issues.
- The OECD and the WWF have been working together focusing on the importance of NBS and their role in green recovery
- IPCC experts have always focused on the role of nature in climate adaptation and mitigation
- Global Commission on Adaptation's Nature-Based Solutions (NBS) Action Track