

# UNSG 2019 Climate Summit: proposal submission information

Those who are interested to provide inputs to the NBS coalition are invited to submit them in summary form (not more than 1000 words), in English, using the following headings (if a specific heading is not applicable this should please be indicated in the contribution):

## **1 TITLE/HEADING.**

Conservation Opportunities under Climate Change Considerations: the experience from the Amazon biome

## **2 CONTEXT AND RATIONALE.**

The Amazon biome is the largest tropical ecosystem of the world and home to 26 million inhabitants, including more than 400 indigenous peoples and nations. It has an exceptional biological and cultural richness that needs all the effort we can invest in its preservation, especially as this vast mega diverse region is probably the second most vulnerable to climate change after the Arctic. The deforestation of its extensive forests contributes significantly to global warming. Consequently, the challenge is to reduce or stop deforestation. This would reduce the emissions of CO<sub>2</sub> in quantities that are relevant at a global level and make it possible to maintain the Amazon's cycle of humidity, which is vital for global climate regulation. With reduced deforestation rain would not continue to be disrupted by the lack of evaporation caused by deforestation.

## **3 AN OVERVIEW OF THE CONTRIBUTION.**

The creation of new protected areas or the expansion of existing ones, especially in zones where conservation and resilience potentials are high, their inclusion in landscape approaches and the implementation of strategies that strengthen connectivity within the biome, become fundamental actions to enable biodiversity to adapt to climate change and for maintaining the supply of ecosystem services in the long term in the Amazon biome.

Governance and policy-making processes for conserving the Amazon should include climate change and resilience criteria for planning and managing protected areas systems in the region and consider the need for a stronger socio-institutional adaptive capacity that can facilitate natural processes for adapting to climate change.

## 4 HOW THE CONTRIBUTION LEVERAGES LIVING NATURAL SYSTEMS AS A SOLUTION TO AVERT CLIMATE CHANGE?

Drawing from the identification of pressures and drivers of climate change, two possible complementary approaches that have different implications for dynamically managing the biome can be identified: avoiding change and acknowledging change. The first tries to maintain the biome's functional identity and therefore requires evaluating those zones that exhibit a lower threshold of functional loss in scenarios of climate change and the characterization of biophysical conditions that are responsible for the resilience of these zones, in order to strengthen them.

The second approach, with emphasis on managing change, identifies the need to develop monitoring and research protocols that enable following up on changes in the conditions of the status of species and ecosystems, in order to anticipate and manage these conditions. In some cases, resulting management actions in implementing these two approaches for the biome's resilience will be in synergy with the traditional conservation agenda.

## 5 HOW MIGHT THE CONTRIBUTION SUPPORT BOTH CLIMATE, MITIGATION AND ADAPTATION AS WELL AS OTHER IMPORTANT CO-BENEFITS AND SOCIAL, ECONOMIC AND ENVIRONMENTAL OUTCOMES IN COMING YEARS. THEY MAY INCLUDE:

### 5.1 ○ REDUCTION IN CARBON EMISSION AND CARBON CAPTURE (GTONNES)

Forests in the Amazon biome store 166 256.61 megatons of carbon, which correspond to 56.2% of all carbon stored by forest aboveground biomass in the world (Baccini et al. 2012, FAO 2015). Furthermore, the amount stored per hectare in protected areas is much greater than in non-protected areas in all countries, with Colombia and Peru being the countries with the highest carbon storage values.

Figura / Figure 49: Carbono ponderado almacenado en la biomasa aérea de los bosques del bioma amazónico por país / Weighted carbon stored in the aerial biomass of the Amazon biome's forests by country

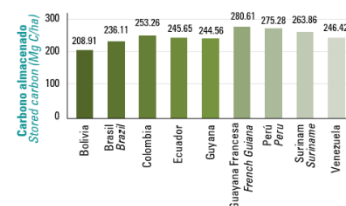
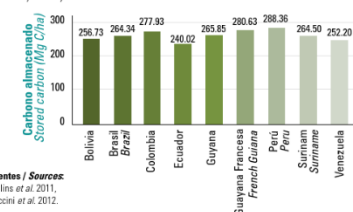


Figura / Figure 51: Carbono ponderado almacenado en la biomasa aérea de los bosques de las áreas protegidas por país / Weighted carbon stored in the aerial biomass of the protected areas' forests by country



Fuentes / Sources:  
Collins et al. 2011,  
Baccini et al. 2012.

### 5.2 INCREASING CLIMATE RESILIENCE

Hydrological modelling using NatCap's InVEST model (Skansi et al. 2013) shows that even though, on average, no drastic change in water yields is expected in future scenarios in the Amazon watershed as a whole, on a regional level drastic changes are actually observed in many watersheds. On the other hand, when comparing the percentage of protected areas in each of the sub basins in terms of the effect of climate variability on water yield during the 2005 drought, observations demonstrate that the most extreme variations in water resources take place in basins with the least territory in protected areas, highlighting the importance of protected areas in mitigating the effects of climate variability.

### **5.3 SOCIAL IMPACT (JOB INCREASE; POVERTY REDUCTION; JUST TRANSITION, ETC.)**

### **5.4 NET ECONOMIC IMPACT (TOTAL IN US\$; HOW WAS IT ACHIEVED?)**

### **5.5 IMPACT ON REALIZATION OF THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT (IN PARTICULAR SDGs 1,2,6,12,13,14,15,16)**

By increasing resilience in the Amazon biome countries will attain at the following SDG targets:

- 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources
- 13.1. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
- 13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities
- 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
- 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
- 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
- 15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
- 17.14 Enhance policy coherence for sustainable development
- 17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

### **5.6 FOOD SECURITY**

### **5.7 MINIMISING SPECIES EXTINCTION AND ECOLOGICAL LOSSES AND FOSTERING AN INCREASE OF BIODIVERSITY.**

When analyzing expected changes within protected areas, no homogeneous behavior is observed in terms of maintaining species richness of selected groups, indicating that currently established protected areas in the biome do not necessarily guarantee mitigation of climate change impacts on species studied. Bearing this in mind, to safekeep the genetic pool and processes, facilitate adaptation processes and to

maintain the ecosystem services supplied by said biodiversity, new conservation areas have to be created, and strategies to increase connectivity habitats implemented within the Amazon biome

## **6 WHICH COUNTRIES AND ORGANISATIONS ARE INVOLVED IN THE CONTRIBUTION?**

- Redparques
- WWF - World Wide Fund for Nature - Brazil, Colombia, Ecuador, Germany, Netherlands, Norway, Peru and UK Offices.
- FAO - Food and Agriculture Organization of the United Nations
- IUCN - International Union for Conservation of Nature – South America Regional Office.
- UNEP - United Nations Environmental Programme.
- BMUB - Federal Ministry of Environment, Nature Protection, Nuclear Construction and Security of Germany.

## **7 HOW HAVE STAKEHOLDERS (FOR EXAMPLE LOCAL COMMUNITIES, YOUTH AND INDIGENOUS PEOPLES, WHERE APPLICABLE) BEEN CONSULTED IN DEVELOPING THE CONTRIBUTION?**

Data is provided for all stakeholders to be able to apply to specific local and political scenarios; results of the studies have tested the results by overlapping maps of priorities and indexes, allowing for regional-scale analyses that can be used for influencing decision-making.

## **8 WHERE CAN THE CONTRIBUTION BE PUT INTO ACTION?**

It's mainly designed for a national scale with a spill-over effect in surrounding countries; it can be methodologically adapted for large landscapes other than the Amazon rainforest, considering other processes such as gap analyses and other effective area-based conservation measures.

## **9 HOW THE CONTRIBUTION WILL BE DELIVERED? HOW WILL DIFFERENT STAKEHOLDERS BE ENGAGED IN ITS IMPLEMENTATION? WHAT ARE THE POTENTIAL TRANSFORMATIONAL IMPACTS?**

The contribution mainly implies increasing protected areas in numbers, coverage, effective management and ecological representation, which also leads to an enhancement and diversification in governance arrangements; both governments (at central and decentralized scales) as well as private land-owners and community rightholders will need to be engaged in declaring more climate-smart protected areas, which in turn will contribute to better land and water conditions to guarantee maintenance of ecosystem services for food, economic development, water and shelter provision and others related with social-economic assets for the inhabitants in the biome and beyond.

**10 IS THIS INITIATIVE CONTRIBUTING TO OTHER CLIMATE ACTION SUMMIT WORKSTREAMS (INDUSTRY TRANSITION; ENERGY TRANSITION; CLIMATE FINANCE AND CARBON PRICING; INFRASTRUCTURE, CITIES AND LOCAL ACTION; RESILIENCE AND ADAPTATION; YOUTH AND CITIZEN MOBILIZATION; SOCIAL AND POLITICAL DRIVERS; MITIGATION STRATEGY)?**

Resilience and adaptation

**11 HOW DOES THIS CONTRIBUTION BUILD UPON EXAMPLES OF EXPERIENCE TO DATE? HOW DOES THE CONTRIBUTION LINK WITH DIFFERENT ONGOING INITIATIVES?**

This approach is based on the IUCN WCPA initiative known as Natural Solutions, emphasizing the role of protected areas as providers of nature-based mechanisms that should contribute to adaptation and resilience. In fact, within the Amazon biome some interventions related to protected areas and climate change have demonstrated the value of these natural spaces as solutions to threats in a context of global change and temperature warming (SNACC project, WWF & BMUB).

**12 WHAT ARE THE MECHANISMS FOR FUNDING (WITH SPECIFIC EMPHASIS ON POTENTIAL FOR PARTNERSHIPS)?**

At the moment, the largest financial bid for the biome is the World Bank's Amazon Landscape Program; other potential partners are those with ongoing or finalizing projects such as the European Union, the German cooperation, Moore Foundation and the development banks – i.e through bankable projects.

**13 WHAT ARE THE MEANS OF STEWARDSHIP, METRICS FOR MONITORING?**

The undertaken studies were designed together with an informative platform known as the Redparques Protected Areas and Climate Change Observatory, where key updates of information are envisioned. Nevertheless, a monitoring system per se was not yet developed, although the design of such system, a method and appropriate metrics will be a huge contribution to follow-up on actual impact of climate-smart protected areas in the region.

**14 WHAT IS THE COMMUNICATION STRATEGY?**

Aimed at reaching a large variety of decision-makers and general public, through the involvement of private and public institutions there's been a long-standing communication process with media, social networks and technical input for those specialized in protected area management. More interaction among local communities and policy makers will make a change, and the bases are already in place.

**15 WHAT ARE THE DETAILS OF PROPONENTS (INDICATING THE DEGREE OF COMMITMENT AMONG THE COUNTRIES AND ORGANIZATIONS THAT ARE NAMED).**