NATURE-BASED SOLUTIONS (NBS) TO ADDRESS CLIMATE CHANGE AND COVID-19

FBE implementing agencies:

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gmb

EXPERTISE FRANCE

The world is facing TWO CRISES threatening national development and life on planet earth

greatest challenges. Climate change drives ecosystems to their tipping points and puts the survival of human communities at risk.

Climate Crisis

Rising global temperatures

are one of humanity's

COVID-19 Pandemic

The pandemic has created sanitary, economic, social, political, and ecological crises. It challenges the sustainability and livelihoods of nations, especially developing countries.

_ _ _ _ _ _ _

Nature based solutions (NbS) represent an opportunity to tackle both crises at the same time. NbS are "actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits" (IUCN, 2016).

FBE is part of:

Euroclima+

GREEN RECOVERY

The term 'green recovery' describes a **transformative package of policies, investments, and reforms** to ensure that recovery from the COVID-19 crisis also includes wide-ranging benefits for climate, nature, communities, and economies (E3G et al., 2020).



A green recovery contributes to responsible consumption and clean production. It promotes decarbonization and a resilient economy in line with the **European Green Deal** and the **Paris Agreement.**

European Green Deal (2020)

CLIMATE GOAL: THE EUROPEAN UNION AIMS TO BE CLIMATE NEUTRAL IN 2050

- Biodiversity
- Sustainable agriculture
- From Farm to Fork
- Clean energy
 Sustainable industry
- Build and renovating
- Sustainable mobility
- Eliminating pollution
- Climate action

NbS should be considered in green recovery strategies

Conserve and restore ecosystems

NbS include actions to protect, restore and sustainably manage ecosystems and the services they provide, to respond to different challenges human societies face. NbS support a green recovery, generate multiple economic and sociocultural benefits, and enhance a sustainable development. Support mitigation and adaptation options to climate change

Reduce environmental risks (e.g. of zoonotic diseases)



Generate benefits for rural and urban communities

Biodiversity conservation and ecosystem restoration underpin NbS, which in turn reduces the risk of zoonotic diseases such as COVID-19. NbS require healthy ecosystems and should enhance their long-term resilience (this includes natural ecosystems or modified by humans).

NbS in EUROCLIMA+

The projects of the thematic sector "Forests, Biodiversity and Ecosystems" (FBE) of the EUROCLIMA+ programme include NbS to contribute to multiple challenges in Latin America.

Nature-based Solutions help to:

CREATE GREEN JOBS



During the peak of the pandemic, 400 million people have lost their jobs. (ILO, 2020)





 According to the WEF, nature-positive solutions could deliver USD 10.1 trillion of annual business opportunities and 395 million jobs by 2030.
 A decarbonized economy could create 22.5 million new jobs in Latin America by 2030 (Saget & Luu, 2020).

TACKLE THE CLIMATE CRISIS

Global emissions of carbon dioxide (CO₂) have increased by almost 50 per cent since 1990 (UN, 2020).







NbS contribute to climate mitigation and adaptation, as they can provide a ~30% reduction of CO_2 emissions, which is necessary to limit global warming to below 2°C by 2030 (Griscom et al., 2017).

CONFRONT BIODIVERSITY LOSS



are predicted to lose 40% of their biodiversity, due to land degradation or destruction of ecosystems resulting from climate change and land use change (IPBES, 2020).





NbS can help tackle biodiversity loss, e.g. through forest landscape restoration or protection of natural wetlands.

EUROCLIMA+ and NbS

The EUROCLIMA+ programme implements 9 projects in 12 different countries in Latin America and the Caribbean under the thematic sector "Forest Biodiversity and Ecosystems" (FBE). These projects strengthen the resilience of ecosystems and human communities in vulnerable situations, threatened by climate change. As a result, the projects generate employment, increase climate resilience, and improve biodiversity in the region.

Some examples of NbS provided by EUROCLIMA+ projects

Ecosystem-based adaptation and mitigation

Planting trees in agricultural areas can support food production, protect communities from flooding caused by intense rainfall, and increase carbon sinks.

food secures we nmunities biodivers by intense and cont

Ecosystem restoration and landscape recovery

The restoration of watersheds secures vital services, increases biodiversity, optimizes land use, and contributes to sustainable development. Conservation and management of protected areas

The protection of natural areas enhances biodiversity and generates employment through site management, ecotourism, or education and research. Promotion of natural infrastructure

Increasing awareness facilitates the restoration of floodplains, which reduce the risk of disasters, improve water quality, and create recreational areas.

NbS in 3 FBE Projects

PROJECT: WATER SOWING AND HARVESTING & ECOSYSTEM SERVICES

- **Objective:** To address water shortage in Guanacaste (Costa Rica) and Piura (Peru) through an ancient system of water sowing and harvesting, developed in Ayacucho (Peru).
- Actions: Creation of 7 reservoirs to collect rainwater > this filters water through the



- subsoil back into springs.
- **NbS approach:** Restoration of upstream ecosystems and construction of basins > the natural infrastructure contributes to enhanced groundwater storage.
- **Results:** Reduction of climate risks due to water scarcity, biodiversity increased through the protection/ restoration of ecosystems, community action leading to the creation of local employment.
- **Beneficiaries:** approximately 1000 people (including agricultural and livestock producers, technicians, and decision makers) in Costa Rica and Peru.



PROJECT: COORDINATING GLOBAL AGENDAS FROM A LOCAL APPROACH

- **Objective:** To increase community resilience through Ecosystem based Adaptation (EbA) in Mexican and Brazilian municipalities.
- Actions: Development of agroforestry and silvopastoral systems, restoration of forests which support the local economy and conserve biodiversity.
- **NbS approach:** Ecosystem based Adaptation (EbA) and forest restoration.
- **Results**: Decreased vulnerability, adaptation to climate change, reinvigoration of the local economy and creation of green jobs.
- **Beneficiaries:** 7 local governments, 140 citizen representatives and public officials, 200 producers, 100 families in Mexico and Brazil.



PROJECT: FORESTS, BIODIVERSITY AND COMMUNITY DEVELOPMENT

- **Objective:** To contribute to local development by implementing strategic projects with novel approaches for the sustainable management of forests and other ecosystems in Guatemala and Honduras.
- Actions: Design of an ecological corridor between the two countries, including local communities, in order to facilitate the management of protected areas, the control over illegal trafficking of species, and the conservation of natural infrastructure for climate action.
- **NbS approach:** Adaptation to climate change and promotion of local resilience through ecosystem conservation and management of protected areas.
- **Results:** Increased cross-border management through community action, creation of local employment, and ecosystem recovery.
- **Beneficiaries:** Approximately 1295 indigenous and mestizo people in Guatemala and Honduras.

SOURCES:

- Banco Interamericano de Desarrollo (BID) (2020). Soluciones Basadas en la Naturaleza.
- European Union (2020). European Green Deal.
- E3G, GIZ y EUROCLIMA+ (2020). Green Recovery for Practitioners.
- Fraser, B. (2015). La restauración de paisajes: un delicado equilibrio entre gente, política y propósitos. Centro para la Investigación Forestal Internacional (CIFOR).
- Griscom et al. (2017). Natural climate solutions.
- International Labour Organization (ILO) (2020). COVID-19 and the world of work.
- International Union for the Conservation of Nature (IUCN) (2016). Defining Nature-based Solutions.
- International Union for the Conservation of Nature (IUCN) (2020). Natural Infrastructure: Opportunities to improve water resources management.
- IPBES (2019). El Informe de la Evaluación Mundial sobre la Diversidad Biológica y los Servicios de los Ecosistemas.
- Lieuw-Kie-Song, M. (ILO) & Pérez-Cirera, V (WWF). (2020). Nature Hires: How nature-based solutions can power a green jobs recovery.
- Programa EUROCLIMA+ (2020). COVID-19 y cambio: la naturaleza para enfrentar ambas crisis.
- Programa EUROCLIMA+ (2020). Sector temático Bosques, Biodiversidad y Ecosistemas (BBE)
- Saget, C., Vogt-Schilb, A. (BID), & Luu, T (OIT). (2020). El empleo en un futuro de cero emisiones netas en América Latina y el Caribe.
- Servicio Nacional de Áreas Protegidas por el Estado de Perú (n.d.). Áreas naturales protegidas en Madre de Dios.
- United Nations (UN) (2020). Sustainable Development Goals. Goal 13: Climate action.
- World Economic Forum (WEF) (2020). The future of nature and business.





germar





Implemented by:





