



Nature Based Solutions



What are nature-based solutions?

Nature-based solutions are actions, policies and ideas that work with the environment and ecosystems to solve a range of problems and challenges. They can range from mangrove restoration to protect coastlines from storm surges, to major greening infrastructure projects that can build cities that are more liveable through heatwaves and reforestation to reduce the levels CO₂ in our atmosphere.

Working with an understanding of the ecosystem services humans rely upon is critical to preventing an acceleration of future economic crises from the increasingly severe and more frequent extreme weather events linked to climate change and other major environmental threats such as pandemics. A resilient and future-proof recovery from this pandemic requires re-thinking the way in which we account for environmental risk and value environmental protection.

What are the benefits of nature-based solutions?

Nature-based solutions to climate change represent a total potential emissions reduction of 12GT CO₂, this is 33 percent of the total emissions reduction necessary to limit global temperature rise to 1.5oC. Put simply, they are 1/3rd of the solution, and often at a fraction of the cost of other solutions.

Research shows that for every dollar spent on nature restoration, there is a nine times return on investment (**Strategy of the United Nations Decade on Ecosystem Restoration**).

Nature-based solutions provide immediate benefits for communities as they recover from COVID-19 and they support more resilient and sustainable societies and economies in the long term. 'Green

infrastructure' – forests, wetlands, and mangroves for example – can perform better and at lower cost than 'grey infrastructure' for services like flood management, water purification and storage, and irrigation. Many nature-based solutions are job creating, especially in rural and vulnerable communities.

Putting nature into the recovery also offers 'shovel ready' solutions, as employment schemes such as the National Rural Employment Guarantee Act in India and the Civilian Conservation Corps in the United States in the 1930s have demonstrated.

How is UNEP supporting countries to leverage Nature Based Solutions?

UNEP can provide expert guidance on how to harness climate benefits from nature-based solutions and how to use resources more efficiently to help countries transition to greener, more sustainable and resilient economies.

The UN Climate Action Summit in 2019 brought unprecedented political attention to nature-based solutions to address climate change, with more than 70 countries endorsing a manifesto on these solutions. A global, multi-sectoral movement is taking shape. Within the nature-based solutions agenda, forests are the most advanced. UN-REDD- the largest UN interagency climate programme working with more than 60 countries - is supporting increased ambition and implementation connected to forests. Climate action and achieving the Sustainable Development Goals, requires robust, fit-for-purpose institutional mechanisms to ensure that policies, technologies and finance come together to deliver climate and development outcomes.