



Nature-based solutions for climate change mitigation



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Key Messages

1

The Intergovernmental Panel on Climate Change (IPCC) scenarios for emission reductions are clear. In order to keep temperature rise close to the Paris Agreement goal of 1.5°C we must achieve net zero CO₂ emissions by 2050. The scenarios show that this will require, in addition to a massive and rapid decarbonization, a significant contribution from land-based options. Nature-based solutions provide the best way of delivering these land-based options, through protection, restoration and sustainable management of natural carbon sinks and reservoirs. Moreover, there is additional mitigation potential from nature-based solutions in coastal and marine ecosystems.

2

A cautious interpretation of the existing evidence, taking account of associated uncertainties and the time needed to deploy safeguards, indicates that by 2030, nature-based solutions implemented across all ecosystems can deliver emission reductions and removals of at least 5 GtCO₂e per year, of a maximum estimate of 11.7 GtCO₂e per year. By 2050, this rises to at least 10 GtCO₂e per year, of a maximum estimate of 18 GtCO₂e per year. This is a significant proportion of the total mitigation needed.

3

Approximately 62 per cent of this contribution is estimated to come from nature-based solutions related to forests, about 24 per cent from solutions in grasslands and croplands, and 10 per cent from additional solutions in peatlands. The remaining 4 per cent will come from solutions implemented in coastal and marine ecosystems. The balance of actions to 'Protect, Manage and Restore' different ecosystems will vary.

4

This contribution by nature-based solutions will require adherence to strict social and environmental safeguards to avoid harm. Much careful work has already been undertaken on the formulation of such safeguards. This is reflected in tools such as the International Union for Conservation of Nature (IUCN) Global Standard for Nature-based Solutions, and in more ecosystem-specific instruments such as the Cancun safeguards for REDD+ (Reducing Emissions from Deforestation and forest Degradation, plus the sustainable management of forests, and the conservation and enhancement of forest carbon stocks). The implementation of these safeguards should be undertaken with equal care and determination.

5

Countries frequently reference nature-based solutions for mitigation in their Nationally Determined Contributions (NDCs) to combating climate change and its effects. The 100 NDCs reviewed for this report showed a greater focus on actions in forest than in other ecosystems, and there were slightly more commitments to Manage and Restore than to Protect carbon stocks in ecosystems.

6

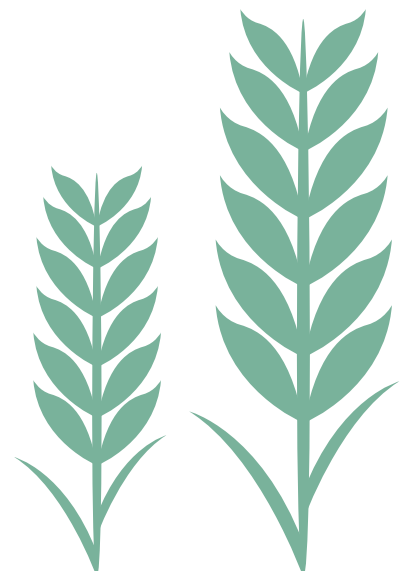
Nature-based solutions, when done well, can deliver many different benefits, including for climate change adaptation and biodiversity conservation. They should therefore be planned, designed and implemented so as to deliver those benefits.

7

The contribution from nature-based solutions needs additional finance. This will require action by and close coordination between public and private actors. It is essential that where the private sector purchases nature-based solutions offsets as part of its pathways to achieve net zero, these offsets are in accordance with social and environmental safeguards and, moreover, are a small part of a wider mitigation strategy focused primarily on deep decarbonization. The development of rules and guidance in this area is now underway.

8

The value and importance of nature needs to be better reflected in economic and political decision-making and in a stronger integration between the biodiversity, climate change and development agendas. Failure to achieve this will exacerbate climate change and other important societal challenges, and the Sustainable Development Goals will not be achieved.



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