



A UNEP RAPID RESPONSE ASSESSMENT

THE NATURAL FIX?

THE ROLE OF ECOSYSTEMS IN CLIMATE MITIGATION

■ It is vital to manage carbon in biological systems, to safeguard existing stores of carbon, reduce emissions and to maximise the potential of natural and agricultural areas for removing carbon from the atmosphere.

■ The priority systems are tropical forests, peatlands and agriculture. Reducing deforestation rates by 50% by 2050 and then maintaining them at this level until 2100 would avoid the direct release of up to 50 Gt C this century, which is equivalent to 12% of the emissions reductions needed to keep atmospheric concentrations of carbon dioxide below 450 ppm. Peatland degradation contributes up to 0.8 Gt C a year, much of which could be avoided through restoration. The agricultural sector could be broadly carbon neutral by 2030 if best management practices were widely adopted (equivalent to up to 2 Gt C a year).

■ It is essential that climate mitigation policy is guided by the best available science concerning ecosystem carbon, and decisions should be informed by the overall costs and benefits of carbon management.

■ Developing policies to achieve these ends is a challenge: it will be necessary to ensure that local and indigenous peoples are not disadvantaged and to consider the potential for achieving co-benefits for biodiversity and ecosystem services. Drylands, in particular, offer opportunities for combining carbon management and land restoration.

■ The adoption of a comprehensive policy framework under UNFCCC for addressing ecosystem carbon management would be a very significant advance.

