



No time to lose – make full use of nature-based solutions in the post-2012 climate change regime

Fifteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP15)
7th – 18th December, 2009, Copenhagen, Denmark

Recommendations for COP 15

IUCN calls on Parties to the UNFCCC:

- To adopt emission reduction targets post-2012 that will reduce the risk of global average temperature exceeding 2°C above pre-industrial levels by reducing greenhouse gas emissions from all sources at least 50% below 1990 levels by 2050, including:
 - binding quantified emission reduction targets by all developed countries in the upper range of -25% to -40% emission reductions below 1990 levels by 2020, and -80% to -95% below 1990 levels emission reductions by 2050; and
 - substantial voluntary, measurable and verifiable actions by some developing countries by 2020, and in all regions by 2050, which are consistent with the above global temperature target on the basis of voluntary and nationally appropriate mitigations actions, supported and enabled by technology transfer, financing and capacity-building, in a measurable, reportable and verifiable manner.

IUCN notes that the above emission reductions constitute a minimum requirement, and will need to be kept under revision in the light of emerging scientific findings regarding emission trajectories, rates of climate change, and planetary tipping points.

IUCN urges Parties to ensure that, as part of the REDD-plus regime:

- **Conservation** actions include avoiding emissions through measures such as forest protection in those countries and areas with high forest cover and low rates of deforestation (HFLD).
- **Sustainable management of forests** actions include safeguarding and enhancing carbon stocks in both community and industrial working forests.
- **Enhancement of forest carbon stocks** actions include 'restoration of forests' on degraded forest lands.

IUCN also urges Parties to:

- Agree that REDD-plus actions should safeguard against conversion of natural forests to plantations and provide co-benefits for biodiversity and ecosystem services.
- Acknowledge the role of biodiversity in forest resilience and hence stability of carbon stocks and mitigation.
- Explicitly include women when ensuring the full and effective participation of all relevant stakeholders in REDD-plus actions.

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IUCN urges Parties to:

- recognize the role that ecosystems can play in enabling people to adapt to climate change under the Adaptation Framework currently being discussed.

IUCN urges Parties to:

- Recognize the role of women as agents of change in climate change in the post-2012 climate change regime;
- Ensure that UNFCCC agreements and statements are in alignment with global goals and strategies, Conventions and agreements, by including specific gender equality text;
- Recognize and respect the rights of indigenous peoples and local communities in accordance with the United Nations Declaration on the Rights of Indigenous Peoples UNDRIP, ensure their full and effective participation and free, prior and informed consent, and recognize the stewardship role and contributions of indigenous peoples' traditional knowledge, innovations and practices.

The impacts of climate change are affecting us now; there is no time to lose

In 2007, the IPCC¹'s Fourth Assessment Report concluded that changes in global temperatures exceeding 2°C above preindustrial levels would result in substantial negative global impacts on water, ecosystems, food, coastal zones and health. The 2007 IPCC Report indicated that this level of warming has a 50% probability of being avoided if the atmospheric concentration of greenhouse gases is stabilised at 450 ppmCO₂eq. The Report also stated that to achieve stabilization at 450ppm, emissions will need to peak between 2010 and 2020.

However, recent scientific findings show that the effects of the present and projected greenhouse gas concentrations in the atmosphere have been underestimated, and that 450ppmCO₂eq may well result in temperature rises that exceed 2°C. Moreover, 2°C increase in average global temperature is now seen as an overly optimistic limit for avoiding dangerous climate change.

In September 2009, scientists from the UK's Met Office Hadley Centre presented new findings² showing that if current high

greenhouse gas emissions continue to rise, it is likely that global warming will exceed 4°C by the end of the century. Indeed, at the highest end of the latest scenarios, 4°C *is a definite possibility* by 2050. This amount of warming,

averaged over the globe, translates into even greater warming in many regions, along with major changes in rainfall. In some areas warming could be significantly higher (10°C or more).

IUCN is looking to the adoption of an effective, comprehensive and equitable post-2012 climate change regime

In response to the findings of the IPCC's Fourth Assessment Report, IUCN's World Conservation Congress (Barcelona 2008), passed Resolution 4.075 and **called on Parties to the UNFCCC** to adopt emission reduction targets post-2012 that will reduce the risk of global average temperature exceeding 2°C above preindustrial levels by reducing greenhouse gas emissions from all sources at least 50% below 1990 levels by 2050, including:

- binding quantified emission reduction targets by all developed countries in the upper range of -25% to -40% emission reductions below 1990 levels by 2020,

¹ Intergovernmental Panel on Climate Change

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<http://www.metoffice.gov.uk/climatechange/news/latest/four-degrees.html>

and -80% to -95% below 1990 levels emission reductions by 2050; and

- substantial voluntary, measurable and verifiable actions by some developing countries by 2020, and in all regions by 2050, which are consistent with the above global temperature target on the basis of voluntary and nationally appropriate mitigations actions, supported and enabled by technology transfer, financing and capacity-building, in a measurable, reportable and verifiable manner.

However, as serious impacts may occur even within these limits, **IUCN notes** that the above emission reductions constitute a minimum requirement, and will need to be kept under revision in the light of emerging scientific findings regarding emission trajectories, rates of climate change, and planetary tipping points.

Negative impacts are already clearly apparent in most ecosystems and for a wide range of species, as recent reports by UNEP and IUCN show

Published scientific reports of negative climate change impacts on species have accumulated at a rapidly growing rate over the past decade, covering species such as the polar bear, migratory birds, marine turtles, reef fish and desert plants. This trend is likely to continue as marine, polar and high altitude ecosystems emerge as particularly vulnerable to climate change.

Corals

Mass coral bleaching causing mortality on a wide geographic scale started when atmospheric CO₂ levels exceeded 320 ppm, induced by more frequent seasonal rises in temperatures. At today's level of 387 ppm, allowing a lag-time of 10 years for sea temperatures to respond, most reefs world-wide are committed to an irreversible decline. The progressive ocean acidification due to increased CO₂ concentrations will cause reduction of coral growth. In addition to the temperature and acidification effects, direct stress on coral reef ecosystems from human activities (including land based activities, physical alteration and destruction of habitat, over fishing and destructive fishing) are driving significant deterioration of reef health and reducing the capacity of reefs to withstand the impacts of increasing CO₂ concentrations. If

CO₂ levels are allowed to reach 450 ppm (due to occur by 2030–2040 at the current rates of emissions increase), reefs will be in rapid and terminal decline world-wide³.

Other organisms and ecosystems are also at risk

Ocean acidity has increased by 30% since the beginning of the Industrial Revolution. Acidification is threatening ocean food webs, directly and indirectly impacting commercially viable fish species, the ecosystems they inhabit and the local and global economies that depend on them. This impact will affect major economic interests and could increasingly put at risk food security, particularly in regions especially dependent on seafood protein.

Climate change has humanitarian and security implications

Further, climate change will 'result in an unprecedented scale of human misery, loss of biodiversity and damage to infrastructure with consequential security implications that need to be addressed urgently', as expressed in a recent statement by the Military Advisory Council of the Institute for Environmental Security, that IUCN's Commission on Education and Communication contributed to. The statement went on to say that in the absence of an 'effective and institutionally robust climate protection system, preserving security and stability even at current levels will become increasingly difficult.

Nature-based solutions to climate change

IUCN is promoting **nature-based solutions** to climate change as an integral part of broader adaptation and mitigation plans and strategies. **REDD-plus** is a rapidly implementable mitigation option and **ecosystem-based adaptation** can harness the potential of healthy and well-managed ecosystems to build resilience and reduce the vulnerability of people to the impacts of climate change.

Reducing Emissions from Deforestation and forest Degradation

IUCN supports the proposed REDD-plus regime. Deforestation and forest degradation account for around 17% of total global emissions. There is about 2,400 billion tones of carbon stored in terrestrial ecosystems with

³ [Marine Pollution Bulletin 58 \(2009\) 1428–1436](#)

about 45% found in natural forests. **REDD-plus is a mitigation solution that can be put into effect at short notice and if correctly implemented, will deliver sizeable results.**

This compares favourably with other large scale mitigation solutions currently under discussion, such as carbon capture and storage, and would have important co-benefits for forest-dependent communities and biodiversity. IUCN is committed to insuring that these co-benefits and requisite safeguards are enshrined in the REDD-plus provisions.

IUCN supports a comprehensive REDD-plus mechanism, which would reward not only countries with current high rates of deforestation for avoiding deforestation but also countries with high forest cover and low deforestation rates, for continuing to protect their forests, including their primary natural forests. The REDD-plus regime IUCN is pursuing would also incentivize the sustainable management of working forests; and promote enhancement of carbon stocks through approaches such as forest landscape restoration.

IUCN is of the view that the REDD-plus regime should be predicated upon delivery of co-benefits for biodiversity and ecosystem services, recognition of the rights of indigenous peoples and local communities, and sound governance arrangements, including the participation of all relevant stakeholders.

While species and ecosystems will be impacted by climate change, the capacity of forest to resist change, or recover following disturbance, is dependent on biodiversity at multiple scales⁴. Therefore, biodiversity conservation helps buffer forests against climate change impacts and continue their contribution to mitigation. From this perspective, biodiversity conservation is a core factor in REDD measures as well as a co-benefit. IUCN urges Parties to acknowledge the role of biodiversity in forest resilience and hence stability of carbon stocks and mitigation.

Finally, IUCN supports the proposal for a phased approach as an operational framework for REDD-plus action, given that REDD-plus will only achieve lasting results if it is able to be adapted to the individual circumstances of

⁴ Thompson, I., Mackey, B., McNulty, S., Mosseler, A. (2009). *Forest Resilience, Biodiversity, and Climate Change. A synthesis of the biodiversity/resilience/stability relationship in forest ecosystems*. Secretariat of the Convention on Biological Diversity, Montreal. Technical Series no. 43, 67 pages.

tropical countries and can directly meet the needs of local people.

IUCN urges Parties to ensure that, as part of the REDD-plus regime:

- **Conservation** actions include avoiding emissions through measures such as forest protection in those countries and areas with high forest cover and low rates of deforestation (HFLD).
- **Sustainable management of forests** actions include safeguarding and enhancing carbon stocks in both community and industrial working forests.
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IUCN also urges Parties to:

- Agree that REDD-plus actions should safeguard against conversion of natural forests to plantations and provide co-benefits for biodiversity and ecosystem services.
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IUCN also urges Parties to:

- Explicitly include women when ensuring the full and effective participation of all relevant stakeholders in REDD-plus actions
- Include recognition of the rights of indigenous peoples in accordance with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

Ecosystem-based adaptation

IUCN promotes Ecosystem-based Adaptation (EbA), or the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people and local communities to adapt to the adverse effects of climate change.

EbA is a cost-effective adaptation solution that can generate social, economic and cultural co-benefits and contribute to the conservation of biodiversity. EbA is a particularly important strategy for the most vulnerable people to climate change, the rural natural resource-dependent poor, who often have few other options than to adapt to climate change

through ecosystem management. EbA can also build on the traditional knowledge and practices of indigenous peoples and local communities.

IUCN welcomes the support EbA has received from Parties for it to be part of the adaptation framework that would form part of the post 2012 climate change regime.

IUCN urges Parties to:

- Recognize the role that ecosystems can play in enabling people to adapt to climate change under the Adaptation Framework currently being discussed.

To ensure an equitable deal, particular attention will need to be given to gender in the post-2012 regime

Gender inequality is an integral part of the measures to address climate change challenges. Women are not only victims of climate change, women are decision-makers and powerful agents of change and their leadership is critical. Moreover, gender equality is a prerequisite for an integral part of the global goals of sustainable development and poverty eradication, both pillars of the Convention and Bali Action Plan. Other related Conventions (CBD and CCD) have specific language on gender.

IUCN believes that the rights of indigenous peoples and local communities need to be recognized in the post-2012 regime

There is a need to enshrine in the agreement the recognition and respect of these rights, in particular the rights to lands, territories and resources, in accordance with the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) and other relevant Human Rights instruments and obligations; to ensure the *full and effective participation* of indigenous peoples and local communities, in accordance with their right to *free, prior, informed consent (FPIC)*; and to recognize the *stewardship role and contributions* of indigenous peoples' *traditional knowledge, innovations and practices*.

IUCN urges Parties to:

- Recognize the role of women as agents of change in climate change in the post-2012 climate change regime;
- Ensure UNFCCC agreements and statements are in alignment with global goals and strategies, Conventions and agreements, by including specific gender equality text;
- Recognize and respect the rights of indigenous peoples and local communities in accordance with UNDRIP⁵, ensure their full and effective participation and free, prior and informed consent, and recognize the stewardship role and contributions of indigenous peoples' traditional knowledge, innovations and practices.

⁵ United Nations Declaration on the Rights of Indigenous Peoples