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IUCN at a Glance
Founded in 1948, the International Union for Conservation of Nature (IUCN) is the world's oldest and largest global environmental network - a democratic membership union with more than 1,000 government and NGO member organizations, and almost 11,000 volunteer scientists in more than 160 countries. IUCN's work is supported by a global secretariat of 60 offices and hundreds of partners in public, NGO and private sectors around the world. IUCN's mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

As a union, IUCN aspires to play an influential role in the shaping of new global alliances, new ways of thinking and innovative solutions by linking the conservation with the development communities and enhancing their capacity to influence decisions and actions.

IUCN's key assets are:
- Providing credible, trusted knowledge
- Convening and building partnerships for action
- Maintaining a global-to-local and local-to-global reach
- Influencing standards and practices

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Ecosystems and Disasters

IUCN's work on Disaster Risk Reduction

www.iucn.org/ecosystems


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Why do ecosystems matter?

Climate change and natural disasters such as landslides and floods are putting millions of people at risk, especially women and children. Their vulnerability is exacerbated by ongoing environmental degradation, more people living in exposed areas, increased frequency of extreme weather events and by government policy.

Healthy ecosystems, such as wetlands, forests and coastal areas, including mangroves and sand dunes, provide buffers to extreme events. They are especially critical to people who depend on natural resources for their livelihoods and physical security. Post-disaster recovery efforts often create more environmental problems than the event itself, for example, by locating refugee camps in ecologically-sensitive areas or through inappropriate waste management. Disaster prevention and climate change mitigation policies could become more effective by integrating sustainable ecosystem management practices.

Five reasons why ecosystems matter to disaster risk reduction:

- **Human well-being depends on ecosystems** that enable people to withstand, cope with, and recover from disasters. Disaster-resilient communities, especially in rural areas, are based on healthy ecosystems and diverse livelihoods;
- **Ecosystems, such as wetlands, forests, and coastal systems can provide cost-effective natural buffers** against hazard events and the impacts of climate change. According to the World Bank (2004), investments in preventive measures, including in maintaining healthy ecosystems, is seven-fold more cost effective than the costs incurred by disasters;
- **There are clear links between resource degradation and disaster risk.** Degraded ecosystems are unable to provide the benefits that help communities to reduce their vulnerability to disasters. In addition, many disasters are caused by reoccurring conflicts, which are based on competition for scarce natural resources – and once a conflict has started it can also lead to additional environmental degradation;
- **Healthy and diverse ecosystems are more robust to extreme weather events.** Disasters can affect biodiversity through the spread of invasive species, mass species mortality, loss of habitat and poorly designed post disaster clean-up efforts. This may have a negative impact on progress toward achieving the objectives of the Convention on Biological Diversity[1] and Millennium Development Goals;
- **Ecosystem degradation reduces the ability of natural systems to sequester carbon,** exacerbating climate change impacted disasters.

[1] The Convention on Biological Diversity (CBD) has three objectives, of the conservation of biodiversity, the sustainable use of its components, and the equitable sharing of benefits from the use of biodiversity. In 2002, the CBD adopted the 2010 Biodiversity Target, to reduce the rate of loss of biodiversity by 2010. The 2010 target was subsequently endorsed at the World Summit on Sustainable Development, and has been incorporated into the Millennium Development Goals, as a target under MDG7 on environmental sustainability.

Ecosystem-based disaster risk reduction supports human security

IUCN is assessing and promoting ways of managing ecosystems that allow ecosystems and people to enhance their resilience and adapt to the impacts of climate change and disaster events. There is an increased understanding that ecosystem-based approaches can be equally or more beneficial than infrastructure or technology-based solutions. Relevant IUCN regional offices and thematic programmes have already been confronted with the urgent realities of post-disaster assessments and providing guidance to governments or IUCN members on community resilience, the role of ecosystems in disaster risk reduction and long-term recovery guidance.

IUCN is working to enhance ecosystem management for disaster risk reduction across the world.

- IUCN builds on lessons learned from **integrated water resource management, including from the IUCN Water and Nature Initiative (WANI)** - a program which promotes the maintenance of ecosystems as infrastructure that reduces vulnerability to floods, droughts and storms under water governance that empowers water users in decision making. IUCN supports climate change adaptation and disaster risk reduction in the Pangani basin in Tanzania and the Tacaná/Cahoacan watersheds in Guatemala and Mexico. IUCN is also actively involved in international water dialogues (including the World Water Forum) that promote the consideration of the role of water in adaptation and as natural infrastructure, including under the UNFCCC.
- IUCN supports **sustainable management of forest resources** as an adaptation model and currently leads a Climate Change and Development project in Eastern Africa that emphasizes the role of forest and water resources in supporting livelihoods.
- **IUCN values a rights-based approach to conservation** and works to evaluate the impacts climate change will have especially on the poor and vulnerable - including women and indigenous peoples - and works to increase their resilience. IUCN with UNDP and UNEP are the core members of the Global Gender and Climate Alliance (GGCA) whose goal is to ensure that **climate change policies, decision-making, and initiatives** at the global, regional, and national levels are **gender responsive. GGCA is active in promoting the development of a Gender strategy under the UNFCCC framework.**
- IUCN with IISD, SEI-US and Intercooperation jointly developed **The Community-Based Risk Screening Tool - Adaptation and Livelihoods (CRiSTAL),** designed to integrate risk reduction and adaptation strategies into development projects and strategies.
- IUCN supports **Mangroves for the Future (MFF)** in Asia and **The Pacific Mangrove Initiative (PMI)** in Oceania - coastal ecosystem conservation projects for sustainable development, which includes special focus on adaptation.
- IUCN recognizes that **islands are central to global conservation efforts while offering lessons learnt in resilience and adaptation** and has established an Islands Initiative to enhance environmental management and livelihood security on islands in the face of climate change impacts.
- IUCN recognizes the importance of **drylands** as diverse ecosystems that **support livelihoods of some of the poorest people on the planet** and works towards conservation, sustainable use and adaptation of dryland systems to climate change effects.
- IUCN is working to improve its capacity to **assess and address the impacts of climate change and disasters on vulnerable communities,** including development of innovative metrics to assess ecosystem-related elements of community vulnerability.
- IUCN has launched the **Ecosystems and Livelihoods Adaptation Network (ELAN),** a collaboration with WWF and other conservation and development organisations to advance the science and practice of Ecosystem-based Adaptation, and to better link adaptation science, practice and policy.

IUCN is working to build resilience through partnerships

In addressing community vulnerability and resilience to disasters and climate change, IUCN recognises that strong partnerships are needed between donors, governments, the private sector, local communities, IUCN members and commissions, and development and humanitarian agencies as well as environmental authorities.

It has developed **guidelines on addressing environment and gender issues in DRR** for the **International Strategy for Disaster Risk Reduction National Platform Toolkit.** These guidelines are only the first step in integrating environmental and gender considerations into national Disaster Risk Reduction efforts. We would like to enhance the implementation process by further **developing partnerships with National Platforms** and Hyogo framework focal points – by organizing regional workshops on ecosystems and disaster risk management, and working directly with each National Platform process.

We welcome your interest and participation in meeting IUCN's 'resilience-building' challenge.

Next steps for which we are seeking collaboration and support:

- Strengthening IUCN's capacity and network to enhance ecosystem management for disaster risk reduction and climate change adaptation.
- Develop training workshops, tools, guidance and best practices for sound environmental management as disaster prevention for National Platforms, disaster authorities, environmental agencies and local communities.
- Develop integrated risk assessments that include ecosystem services and valuation as key components.
- Build strong environmental - disaster risk reduction partnerships, nationally, regionally and globally.
- Develop innovative metrics for assessing ecosystem health and services in the context of disaster risk reduction and climate change adaptation.
- Promote knowledge-building and knowledge-sharing on ecological restoration, eco-engineering practices, land use planning and sound ecosystem management for disaster risk reduction.
- Promote "EPIC", Ecosystems Protecting Infrastructure and Communities, an innovative ecosystem-based proposal for field testing the effectiveness and economic value of environmental management for DRR in collaboration with ProAct (a Swiss-based environmental NGO).

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