Conserving nature, helping local communities

Although none of the great challenges of the 21st century, such as global warming, food security and economic and social development, can be solved using only nature, addressing these challenges depends largely on the health and functionality of ecosystems.

Considering that about 15 percent of global greenhouse-gas emissions come from deforestation in developing countries, the potential of South America — home to 21 percent of the planet’s forests — to contribute to the mitigation of emissions is enormous.

Nevertheless, the South American region is highly vulnerable to climate change due to its geographical and topographical characteristics, and in recent years it has suffered major impacts due to extreme climatic situations. While it is difficult to establish a direct link between these situations and climate change, data points to examples such as the increase of extreme weather events, including El Niño and La Niña; the decrease of rainfall in some regions and an increase in others; an increase in diseases such as malaria, dengue fever and the consequent increase in morbidity and mortality rates; and a decrease of glacier mass in the Andes, among other effects. These phenomena are also associated with negative economic and social impacts.

The role of healthy ecosystems in helping people adapt to climate change and in mitigating the effects of extreme climate events is still under discussion to many governments and actors in the region. The implementation of nature-based solutions offers a practical option that can lead to mitigation and adaptation to climate change, as well as the reduction of disaster-related risks.

These solutions must generate tangible benefits for the livelihoods of local populations, and at the same time promote respect of the rights over their territories, natural resources and biodiversity.
Although in recent years the negotiations of the UNFCCC framework have brought greater attention to the role of natural ecosystems in combating climate change, nature-based solutions must remain part of broader strategies that promote the reduction of the use of fossil fuels, the development of infrastructure, and the establishment of climate-related early warning systems, among other measures. Examples include:

- **Ecosystem-based adaptation (EbA)** integrates the management, conservation and restoration of ecosystems to provide services that help people adapt to the impacts of climate change. Its purpose is to maintain and increase resilience and reduce the vulnerability of people and ecosystems. Ecosystem-based adaptation strategies and activities can be cost-effective and at the same time generate social, economic, environmental and cultural benefits. It is a form of adaptation accessible to local populations, and can help preserve local knowledge. It can also be linked with climate change mitigation, given the potential of most ecosystems to sequester and enhance carbon stocks.

- **Reduction of Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests, and the increase of carbon stocks in developing countries (REDD+)** helps to prevent the loss of carbon from forest and soils, as well as to sequester more carbon, reducing greenhouse emissions. Despite the great potential offered by REDD+ to the region, it brings important challenges such as the clarification of the property rights of stored carbon and forest land tenure; the distribution of benefits to local communities, including indigenous peoples who live and depend on forests; and the role of local, regional and national governments in the distribution of benefits and in the monitoring and verification of the reduction of emissions, among others.

In Latin American and the Caribbean region, reported losses associated with extreme weather neared USD 600 billion between 1970 and 2008 and more than USD 10 billion in 2009, and approximately USD 49 billion in 2010 (ECLAC, 2009 and ECLAC, 2010).

**Lines of action**

In South America IUCN promotes the development of solutions based on nature, which has focused on these lines of action:

• Supporting countries to adapt to the impacts of climate change through the maintenance of ecosystem services and biodiversity, as part of local and national strategies for adaptation and reduction in the risk of natural disasters.
• Promote actions for the reduced emissions from deforestation and forest degradation, the increase of carbon stocks and the equitable distribution of benefits.
• Facilitate the analysis and discussion on the use of economic tools for the conservation of nature.