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An Ecoregional Conservation Plan for the Caucasus



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CAUCASUS ECOREGION

The 580,000 km² Caucasus Ecoregion covers six countries: Armenia, Azerbaijan, Georgia, the Northern Caucasus part of Russia, northeastern Turkey, and part of northwestern Iran. One of the most biologically rich areas on Earth, the Caucasus is included in WWF's list of Global 200 Ecoregions, identified as globally outstanding for biodiversity and is ranked among the planet's 25 most diverse and endangered hotspots by Conservation International.

But natural ecosystems and their fauna and flora are rapidly disappearing in the Caucasus Ecoregion. Forests are dwindling because of unsustainable logging, fuelwood harvesting and timber trade, and grasslands are overgrazed by livestock. Infrastructure development, pollution and poor water management are damaging rivers and lakes. Throughout the region, many species are being lost through poaching, illegal wildlife trade and overfishing.

However, now, for the first time, conservation experts from all over the region have come together to create a comprehensive long-term strategy to protect, manage and restore the Ecoregion's natural resources.



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Forests are the most important biome for biodiversity conservation in the Caucasus, covering nearly one-fifth of the region. Mountain forests make up the majority of the forest biome in the Ecoregion and play a critical role in preventing soil erosion and regulating water flow.

A TREASURE HOUSE OF BIODIVERSITY

Much of the Caucasus Ecoregion is mountainous, but there are also extensive lowlands and coastlines. The wide range of altitudes brings a diverse climate, which is reflected in a rich variety of ecosystems: forests, lakes, rivers, high mountains, dry mountain shrublands, steppes, semi-deserts, and wetlands. The areas bordering the Black and Caspian Seas have a number of valuable coastal and marine ecosystems.

The Caucasus Ecoregion is a biological 'crossroads', where animal and plant species from Europe, Central Asia, the Middle East, and North Africa mingle with endemic species found nowhere else on earth. Over 6,500 species of vascular plants are found here, at least a quarter of them unique to the region - the highest level of endemism in the temperate world. The Ecoregion's 153 mammal species include eleven kinds of large herbivores and five species

The vision is:

.... a region where healthy populations of native plants and animals flourish; habitats, landscapes and natural processes are preserved; and where people actively participate in the equitable and sustainable management and use of natural resources, providing the basis for vibrant and diverse economies and cultures.

Biodiversity conservation is always important for the entire area of a region. Nevertheless, limited resources make it necessary to prioritise conservation actions. In the Caucasus, a number of *priority conservation areas* and *priority conservation corridors* have been identified, concentrated in four *priority biomes* forests, freshwater habitats, marine and coastal ecosystems, and high mountain habitats where the bulk of biodiversity is found and where the threats are greatest. A multitude of conservation tools need to be applied in these priority areas. These tools include measures like the development of responsible tourism, ecologically sound agriculture, sustainable forestry, developing markets for regional products, restoration of destroyed habitats as well as the establishment of new and the improvement of existing protected areas. The areas outside these priority areas are also important - for one group of animals or another, or for certain plants and ecosystems, but the priority conservation areas are important for the largest number of animals, plants and ecosystems: the jewels in the Caucasus crown.

The ECP outlines a wide range of measures to conserve and manage the biodiversity of the Caucasus Ecoregion and to restore its degraded ecosystems. By agreeing on the steps needed, governments, NGOs, donor agencies and conservation experts will be able to concentrate their resources and efforts on the most important priorities, while taking into account regional socio-economic differences and realities. The proposed actions will also be vital for assisting the governments of the region to fulfil the commitments they have made in signing international conventions such as the Convention on Biological Diversity, the Ramsar Convention on Wetlands, the Convention on International Trade in Endangered Species, and the Convention on Migratory Species.

Building on existing conservation efforts, these actions include:

Organizing a well managed protected area network across the Ecoregion

Existing national parks and reserves form a sound basis for biodiversity conservation, but they do not protect the full range of habitats and species in the region and most are too small to guarantee long-term protection of plant and animal populations. The ECP seeks to create a representative network of protected areas (Econet), linked by 'corridors' which will allow for movements of wide-ranging species such as large mammals and migratory fish and birds.

Good management will be critical for the success of the protected area network. The ECP identifies actions that need to be taken to achieve this: building sound institutional and legal frameworks, boosting staff capacity for protected areas and conservation agencies, and involving local communities in making decisions on the management of parks and reserves.



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Forests of the Colchic Region of Georgia, Russia and Turkey harbour species of oak, birch, rhododendron, and other trees and shrubs found nowhere else. This region also boasts extensive wetlands important for fish and migratory birds. Despite the relatively high number of protected areas here, poaching and overfishing are having a grave impact on bird and fish populations while forests are being degraded by intensive logging and over-use.

*Of fifty-six priority conservation areas in the Ecoregion, experts have identified eleven in the Greater Caucasus mountain range and ten in the Lesser Caucasus mountain chain where protected areas and wildlife corridors need to be put in place or strengthened. These will be vital for conserving viable populations of ungulates such as the bezoar goat (*Capra aegagrus*) which is threatened by poaching, habitat loss and genetic isolation.*



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The support of local communities living in and around parks and reserves is a priority if problems such as poaching, illegal timber harvesting and overgrazing by livestock are to be addressed.

Encouraging collaborative management through involvement of all stakeholders, from national governments to NGOs and local communities

The ECP includes a range of actions to improve public support for biodiversity conservation in the region, especially in rural areas. For example, communities living in and around protected areas should be given opportunities to participate in management decisions and to benefit from the wise use of their resources. Collaboration between local authorities, NGOs and local rural people will also be important for achieving conservation measures such as sustainable forest management, which addresses illegal logging and timber certification. The ECP identifies a number of actions needed to achieve such collaborative management successfully, for example, by initiating training schemes for government agencies, NGOs and local communities. One of the measures proposed by the ECP to involve a wide range of stakeholders is to set up a Regional Council for Biodiversity Conservation and Sustainable Use in the Caucasus, consisting of both government and non-governmental organisations.

Conserving and restoring endangered species

The ECP identifies twenty-six *focal species and subspecies* that are in need of urgent conservation measures to prevent their extinction in the wild. The selected species include: carnivores (leopard, brown bear, and striped hyena); ungulates (East and West Caucasian turs, bezoar goat, Caucasian red deer, chamois, goitered gazelle, mouflon and European bison); birds (Caucasian black grouse, imperial eagle, cinereous vulture, marbled duck, white-headed duck, and pygmy cormorant); amphibians (Syrian spadefoot and Caucasian salamander); and seven species of sturgeon fish. The ECP describes the measures needed to increase populations of these endangered animals. They range from improved monitoring of threatened plant and animal populations, strengthening the management of existing protected areas and creating new ones, strengthening and enforcing wildlife laws and, where appropriate, re-introducing focal species to parts of the Caucasus Ecoregion where they have already become extinct.



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The leopard is the rarest mammal in the Ecoregion, celebrated in many local poems, fairytales and songs. Once widespread, only a few now survive in the Caucasus. The main threats to this magnificent predator are poaching and the overhunting of wild ungulates, its natural prey. The ECP describes a number of measures to restore healthy leopard populations, including the creation of new protected areas and increasing the populations of ungulates. Measures need to be taken to involve local people in leopard conservation and to strengthen the laws that protect them.

Promoting transboundary cooperation

Better collaboration between the governments of the region is a priority, for example to improve management of existing and proposed protected areas that are adjacent to, or lie across, national borders. It is especially important for helping countries meet their obligations towards the Convention on Biodiversity and other conventions. Regional cooperation will also ensure that forests and wetlands that provide valuable ecosystem services such as watershed protection and flood control will benefit communities in adjacent countries. Regional teamwork will help to control the illegal export trade in timber and threatened species such as medicinal plants, trophy ungulates, rare falcons, and sturgeon. Cooperation between the countries is required for success in restoring species like the Caucasian leopard to its native range and to conserve its remaining habitat.

Iori river valley, which includes one of the last remnant of floodplain forests in South Caucasus - rich in animal and relict plant species,- is one of the transboundary cooperation sites in the ecoregion.

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Highly valuable forest of the Caucasus are threatened by unsustainable management and exploitation which if they continue unchecked will lead to irreversible loss of biodiversity and of the products and services on which many people depend.

Restoring degraded ecosystems

An increase in forest cover and quality in the Ecoregion would bring long-term benefits to both people and wildlife: the ECP identifies a number of areas for forest landscape restoration measures that could be undertaken with help from local communities. It also identifies coastal habitats, rivers, and lakes in need of restoration as suitable habitat for fish and migratory birds.

Harmonizing legislative and policy frameworks

All the countries of the region have legislation in place to protect the environment and to govern management of natural resources. Nationally, however, there are gaps and contradictions in many of the laws, and it is not always clear which government agencies are responsible for enforcing them. Regionally, lack of collaboration between the governments hinders transboundary control of overfishing, illegal trade in timber and wildlife, and pollution of waterways. Harmonizing legislative and policy frameworks across the region will go a long way to address one of the root causes of biodiversity loss.



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Scientists, government and NGOs' representatives discussing biodiversity monitoring perspective of the Caucasus region at international conference in Tbilisi, December 2005.



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*More research is needed to understand the distribution and habitat requirements of focal species such as the Caucasian black grouse (*Tetrao mlokosiewiczzi*) and the Caucasian salamander (*Mertensiella caucasica*) so that key areas can be protected and linked by corridors.*

Coordinate scientific research and monitoring across the Ecoregion, including issues of indigenous knowledge and local communities

Monitoring and research will help gain a better understanding of the status of biodiversity and the extent of threats to wildlife populations and their habitats, and help to pinpoint the exact measures needed to halt biodiversity loss. The ECP describes a number of short-term actions to improve and coordinate research and monitoring, including establishing a regional biodiversity monitoring network and database and a regional conservation training centre.

Photos on the cover page:

1,2 - Hartmut Mueller, Succow Foundation
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