



ECOREGIONAL CONSERVATION PLAN
FOR THE **CAUCASUS**

2020 EDITION



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TBILISI 2020



The 2020 Edition of the Ecoregional Conservation Plan (ECP) for the Caucasus is published in two parts. This, the first and main part, presents an overview of the Ecoregion's biodiversity and the threats which it faces, describes the main actors in the field of biodiversity conservation in the Caucasus, explains the role of the ECP as a regional instrument for implementing international agreements related to biodiversity, discusses the main conceptual approaches for developing this edition of ECP, and presents the plan itself with its targets and actions. The second part of the ECP presents supplementary reports that include an explanation of the rationale for the Ecoregion's boundaries, a detailed description of the Conservation Landscapes and Key Biodiversity Areas which form the basis of the Ecological Network envisaged by the ECP, and information about the status of some of the Ecoregion's threatened species.

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 APA – Agency of Protected Areas
 BEU - Baku Engineering University
 CENN – Caucasus Environmental NGO Network
 CIBR - Caspian Institute of Biological Resources
 CNF – Caucasus Nature Fund
 DoE – Department of Environment, Iran
 ECF – Ecoregion Corridor Fund Project
 Ecovision - Union for Sustainable Development
 FFI - Fauna and Flora International
 FPWC - Foundation for the Preservation of Wildlife and Cultural Assets
 GD NCNP – General Directorate of Nature Conservation and National Parks
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 NCPD - National Centre on Prevention and Control of Diseases
 NGO – Non-governmental Organization
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 REC – Regional Environmental Center
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 SNR – State/Strict Nature Reserve
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The ECP is important as a vision and plan but also as a process that fosters cooperation between the Caucasus countries and between the Caucasus countries and actors from beyond the region's boundaries. It is our hope that the ECP will continue to guide regional and transboundary conservation actions and strengthen cooperation and partnership in the region.



ACRONYMS AND ABBREVIATIONS

ACCOBAMS	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area
ADA	Austrian Development Agency
ADC	Austrian Development Cooperation
AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
Bern Convention	Convention on the Conservation of European Wildlife and Natural Habitats
BL	Bridging Landscape
BMZ	German Federal Ministry for Economic Cooperation and Development
BMU	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
CBD	Convention on Biological Diversity
CBMN	Caucasus Biodiversity Monitoring Network
CCA	Community Conserved Area
CEPF	The Critical Ecosystem Partnership Fund
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CL	Conservation Landscape
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CNF	Caucasus Nature Fund
ECF	Eco-Corridors Fund for the Caucasus
ECP	The Ecoregional Conservation Plan for the Caucasus
EU	The European Union
EUROBATS	Agreement on the Conservation of Populations of European Bats
FAO	Food and Agriculture Organization of the United Nations
FLEG	Forest Law Enforcement and Governance Programme
FLR	Forest Landscape Restoration
FMNR	Federal Managed Nature Reserve
GCF	The Green Climate Fund
GEF	The Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HCV	High Conservation Value
IUCN	The International Union for Conservation of Nature
IUCN Green List	The IUCN Programme of Certification for Protected and Conserved Areas
KBA	Key Biodiversity Area
KfW	KfW Development Bank
MNR	Managed Nature Reserve / Managed Reserve, equal to the IUCN PA Category IV
METT	Protected Area Management Effectiveness Tracking Tool
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-governmental organization
NP	National Park, equal to the IUCN PA Category II
PA	Protected Area
Ramsar Convention	Convention on Wetlands of International Importance, especially as Waterfowl Habitat
RAPPAM	Rapid Assessment and Prioritization of Protected Area Management Methodology
SDG	Sustainable Development Goals
SNR	Strict Nature Reserve / State Nature Reserve, equal to the IUCN PA Category I
TJS	Transboundary Joint Secretariat for the South Caucasus financed by the German Government (BMZ/KfW)
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
WHC	Convention Concerning the Protection of the World Cultural and Natural Heritage
WWF	World Wide Fund for Nature
WWF Caucasus	WWF Caucasus Programme Office

GLOSSARY OF KEY TERMS

Aggregation	A geographically restricted clustering of individuals that typically occurs during a specific life history stage or process such as breeding, feeding or migration. This clustering is indicated by highly localised relative abundance, two or more orders magnitude larger than the species' average recorded numbers or densities at other stages during its life-cycle (IUCN, 2016).
Bridging Landscape	A physical-geographical entity that physically connects Conservation Landscapes.
Caucasus Ecoregion	For the purpose of this edition, the term “Ecoregion” is used conditionally: the Caucasus Ecoregion is a composite unit covering several terrestrial ecoregions that fall inside the Caucasus' geographical boundaries; it almost fully coincides with the Caucasus Biodiversity Hotspot of CI/CEPF (a more detailed description is in Vol. 2 of ECP 2020).
Colchic Forests (and Wetlands)	Relict forests of the Eastern Black Sea Basin rich in Tertiary relict and endemic plant species (classified also as Temperate Rainforest) and associated unique wetlands. The area is named after the ancient Georgian kingdom Kolkheti and the region in the Eastern Black Sea known as Colchis (<i>Kolkhis</i> – in Greek).
Conservation Landscape	A geographically defined large area, typically larger than 5000 km ² , identified as priority for conserving biodiversity and maintaining healthy ecological processes and environmental services.
Conserved Area	Shortened form of the term “Other effective area-based conservation measure” (see below).
Corridor	See Ecological corridor
Other effective area-based conservation measure (OECM)	A geographically defined area other than a Protected Area which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and, where applicable, cultural, spiritual, socio-economic, and other locally relevant values (2018 UN Biodiversity Conference).
Ecological Corridor	A clearly defined geographical space that is governed and managed over the long-term to conserve or restore effective landscape connectivity, with associated ecosystem services and cultural and spiritual values (slightly modified from a draft definition by Hilty et al., 2019).
Ecological Network	A system of protected areas, conserved areas, and ecological corridors, which is established to conserve biological diversity and ecosystem services.
European Diploma for Protected Areas	A prestigious international award granted since 1965 by the Committee of Ministers of the Council of Europe. It recognises natural and semi-natural areas and landscapes of exceptional European importance for the preservation of biological, geological and landscape diversity, which are managed in an exemplary way.
Geographically Restricted Species	Species having a restricted global distribution, as measured by range, extent of suitable habitat or area of occupancy, and hence largely confined or endemic to a relatively small portion of the globe such as bioregion, ecoregion or site (IUCN, 2016).

Globally Threatened Species	Species categorised in the IUCN Red List of Threatened Species as Critically Endangered (CR), Endangered (EN) or Vulnerable (VU).
Hyrcanian (Hyrcan) Forest	Southern Caspian relict forests rich in Tertiary relict and endemic plant species named after the ancient Persian province of Hyrcania (Varkâna in old Persian).
“Nature Needs Half”	Protect half of the Planet by 2050: a concept promoted by an international coalition of scientists, conservationists, non-profit organisations and public officials defending nature at the scale needed for it to be able to continue to function for the benefit of all life and to support human well-being. This concept is presented in a paper - “A Global Deal for Nature: Guiding Principles, Milestones, and Targets” (Dinerstein et al., 2019) that explains why protecting half the Earth is needed and presents a science-driven plan to save the diversity and abundance of life on Earth.
North Caucasus	Geographical name used in Soviet and Russian geographic publications for the Russian part of the Caucasus, covering Dagestan, Chechnya, Ingushetia, Kabardino-Balkaria, Karachay-Cherkessia, Adygea republics, Stavropol and Krasnodar regions of Russian Federation.
Protected Area	In the ECP the term “protected area” has the meaning given to it by the IUCN, which is: a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values.
Site Outcomes	One of three conservation outcomes that are used by the Critical Ecosystem Partnership Fund. Conservation outcomes are targets against which the success of investments can be measured; they are the full set of conservation targets in a biodiversity Hotspot that need to be achieved in order to prevent biodiversity loss. These targets are defined at three levels: species (extinctions avoided), sites (areas protected) and landscapes (corridors created).
South Caucasus	Political-geographical term, which includes the three Caucasus countries: Armenia, Azerbaijan, Georgia.
Southern Caucasus	Not a common term. The ECP uses it as a name for the area covered by the South Caucasus countries, plus the Iranian and Turkish parts of the Caucasus.
Southern Caucasus (Volcanic) Uplands	Not a common term. The ECP uses it as a name for the geographical-geological entity covering the volcanic plateaus and ranges of the Southern Caucasus (within Armenia, Georgia, Turkey and Iran) that by origin and by general character of landscapes do not belong to the Lesser Caucasus and the Talysh-Alborz Mountain Ranges.
UNESCO Global GEOPARK	A single, unified geographical area where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development.
Zoonotic diseases	Diseases caused by a virus, bacterium, parasite or fungus that spread from animals to humans.

1. INTRODUCTION

The Caucasus Ecoregion is one of the world's Biodiversity Hotspots - the richest and at the same time most threatened reservoirs of plant and animal life on Earth (Map 1). Covering an area of 586,800 km² and extending over Armenia, Azerbaijan and Georgia, the North Caucasian part of the Russian Federation, north-eastern Turkey, and north-western Iran, the Caucasus hosts 2,791 plant species and 21 genera that are found nowhere else in the world; the level of plant endemism – more than 25% of the region's plant species – is the highest in the temperate world. Plants and plant associations from tens of millions of years ago have survived in “refugia” from the last ice age in the Colchic region of the Black Sea basin and the Hyrcanian region on the Caspian Sea coast. More than 120 species of vertebrate animals are endemic to the Caucasus Ecoregion.

Map 1. The Caucasus Ecoregion



Explanation: (a) dotted lines show Ecoregion's boundaries; (b) solid lines - state borders drawn according to UN map (<http://www.un.org/Depts/Cartographic/map/profile/world.pdf>); (c) hatching - territories of current political conflicts.

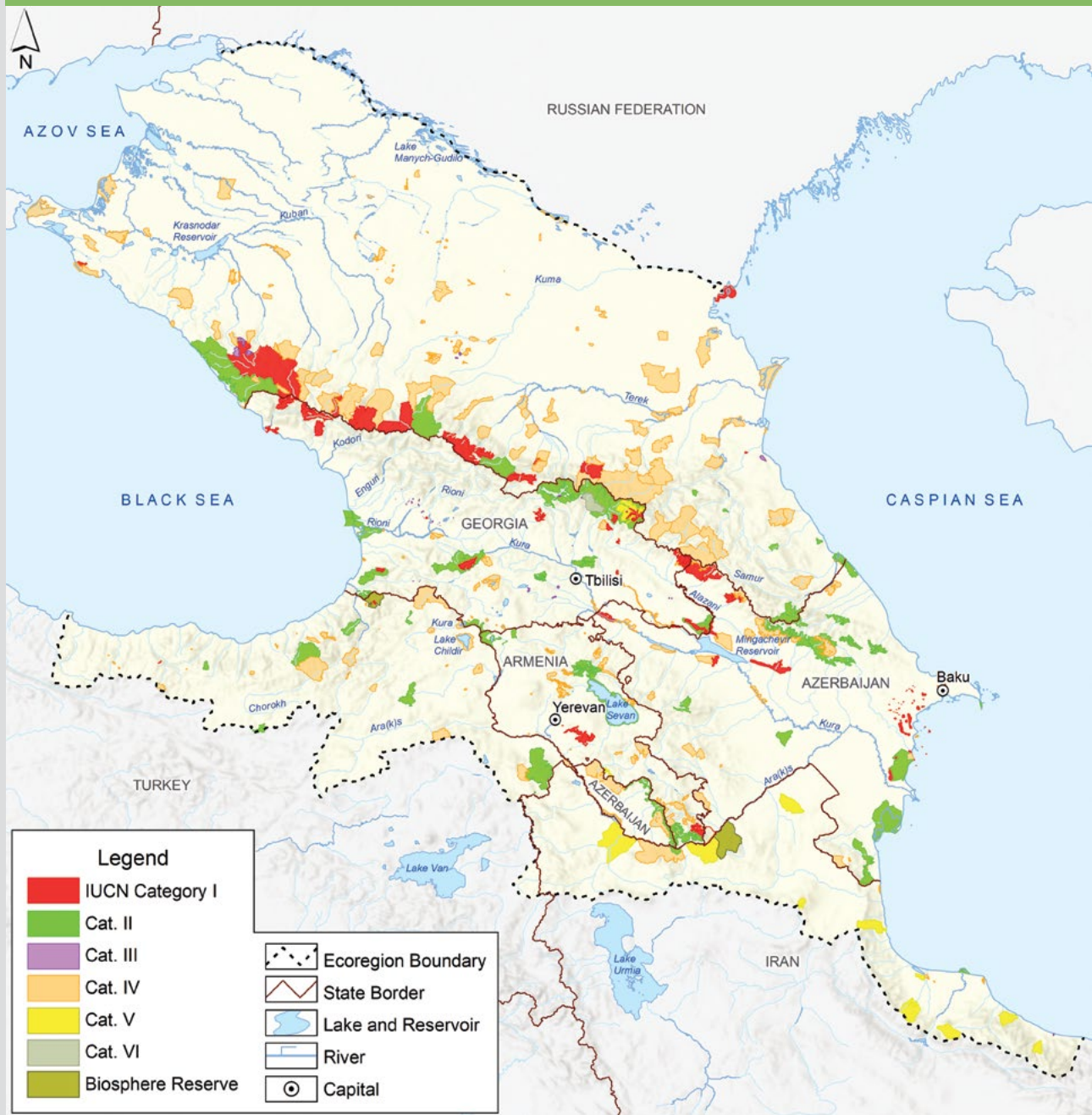
The biodiversity of the Caucasus faces multiple threats. Large parts of the region's natural landscapes have already been fragmented, lost or substantially changed. Unsustainable use of forests and pastures, the killing and taking of wildlife and the polluting of terrestrial, marine and freshwater ecosystems continue to degrade habitats and the plant and animal communities which they support. Most natural old growth forests have been fragmented into small sections by logging and clearance for other uses. Agriculture, irrigation and grazing have significantly altered the semi-desert ecosystems that used to be widespread in the lowlands and foothills of the eastern part of the Caucasus isthmus. Intensive summer grazing has reduced the plant species diversity of alpine meadows and grasslands. Freshwater ecosystems have been degraded by the clearance of riverine forests and the construction of hydro-power plants while the marine ecosystems of the Black, Azov and Caspian Seas have been damaged by pollution and overfishing. The effects of these pressures are being compounded by climate change; the impacts on Caucasus ecosystems are already apparent and will become stronger.

Biodiversity provides us with food and water and the air we breathe, but far more than that, humanity's very survival depends on biodiversity. The 2020 report *Nature Risk Rising* by the World Economic Forum in collaboration with PwC shows that \$44 trillion of economic value generation – over half the world's total GDP – is moderately or highly dependent on nature and its services, and therefore exposed to risks from nature loss. The World Economic Forum's 2020 *Global Risks Report* ranks biodiversity loss and ecosystem collapse as one of the top five threats humanity will face in the ten years to 2030. Furthermore, because of the strong interconnection between biodiversity loss and climate change, conserving biodiversity and preserving ecosystem health are a top priority. The carbon sequestration service provided by healthy forests and other carbon-rich ecosystems is key to climate stabilization and to climate change mitigation. A new climate model published by Springer Nature in early 2019, *Achieving the Paris Climate Agreement Goals*, shows that we can only meet the target of remaining below 1.5°C in average global temperature rise by ending the conversion of forests and other natural lands by 2030, this in addition to forest restoration and other natural climate solutions to sequester carbon from the atmosphere and a transition to carbon-free energy by 2050.

Moreover, it has become increasingly clear over recent decades that drivers of emerging infectious zoonotic diseases are some of the same drivers that lead to biodiversity loss and climate change. If we continue to destroy biodiversity, human and economic losses will likely become more severe. Protection of the natural environment creates the potential to find win-win solutions for biodiversity, human health and a sustainable economy.

Combatting the decline in biodiversity requires many types of intervention on different levels. Proper policy and regulations for sustainable management of natural resources, strictly enforced by well financed and staffed control bodies, can prevent illegal and unsustainable use. Well designed and properly applied planning and environmental impact assessment procedures can mitigate the impacts of industrial, residential and infrastructure development. Environmental education programmes and public awareness campaigns can encourage people to adopt more sustainable lifestyles and businesses to transform their production systems and supply chains to reduce their impacts on the environment.

For many years a key response to anthropogenic threats to biodiversity has been to establish protected areas (PAs). In the Caucasus, the first strict nature reserve was established more than one hundred years ago in Lagodekhi, on the south-eastern slopes of the Greater Caucasus Range in Georgia. Since then, many more PAs have been established in the Caucasus: as at 2020 there are 362 PAs of different categories covering slightly more than 10% of the region's total area (Map 2). However, the region's biodiversity continues to be depleted. Most PAs are not large enough to maintain species or ecological processes within their boundaries.

Map 2. Protected Areas of the Caucasus Ecoregion

Sources: Ministry of Environment, Armenia; Ministry of Ecology and Natural Resources, Azerbaijan; Ministry of Environmental Protection and Agriculture/Agency of Protected Areas, Georgia; Department of Environment, Iran; Ministry of Agriculture and Forestry/General Directorate of Nature Conservation and National Parks, Turkey; WWF Caucasus Programme Office; WWF Armenia Branch; WWF Azerbaijan Branch; WWF Russia.

As the connectivity of adjacent areas is reduced by increasing human impacts, PAs become more isolated and species that used to move into and out of protected areas during their daily movements, migration, or while finding new ranges can no longer do so. Recognition of the limitations of PAs has led to a shift away from the protection of individual sites to the conservation of large landscapes and the creation of Ecological Networks where, in fragmented landscapes, measures are taken to restore connectivity to facilitate the movement of individuals, support gene flow and thus genetic diversity, maintain ecological processes, and enable adaptation.

This is where the ECP comes into play, with its goal of halting the loss of biodiversity and enabling its recovery through the establishment of **an Ecological Network** comprised of **PAs** and **Other Effective Area-based Conservation Measures** to protect the most important sites for biodiversity arranged in large **Conservation Landscapes** and connected by **Ecological Corridors** where sustainable land and natural resources management practices support the movement of wildlife populations, individuals, genes and propagules, and underpin preservation of ecological processes and ecosystem services. The conservation impacts of the Ecological Network will be enhanced by species conservation and restoration projects, and measures to support sustainable forest management and connectivity of freshwater ecosystems.

The first edition of the ECP was published in 2006 – the product of over four years work by more than 140 experts from the six countries of the Ecoregion, supported by funding from the MacArthur Foundation, the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Critical Ecosystem Partnership Fund (CEPF). An updated version of the plan was published in 2012 to reflect progress with the ECP implementation. In the years since the first edition, new, landscape-scale, approaches to conservation have emerged which emphasize the ecosystem approach to biodiversity conservation and connectivity. At the same time, many of the country-level actions in previous editions have been made redundant by National Biodiversity Strategies and Action Plans.

In response, ECP 2020 introduces **the concept of Conservation and Bridging Landscapes** into its vision of **the Ecological Network for the Caucasus**, applies a methodology that prioritises sites that are critically important from a global and regional perspective, and specifies conservation measures that are relevant on an ecoregional or transboundary level; the ECP's targets and actions have also been substantially revised.

ECP 2020 is the result of three years intensive collaboration: over 185 experts from the region participated in its preparation, coming together in two regional workshops, six thematic workshops, and three geographical workshops.

Like its predecessors, ECP 2020 is aimed at organisations and individuals who can help achieve the ECP's vision. It is the hope of all of those who collaborated during its preparation that this new edition will give renewed regional impetus to the actions of governmental agencies, non-government organisations and research institutions, and will continue to encourage and guide the investment decisions of donor organisations.

Experts and specialists who participated in the development of the ECP recognize that keeping a regional conservation focus and creating regional environmental awareness is a great challenge in the political circumstances of the Caucasus: several serious political conflicts are still not resolved. At the same time, their collaboration, conducted always in a spirit of friendship, showed that nature conservation is a field of common interests where it is possible to achieve consensus and reach compromises to maintain the environment of the common homeland – the Caucasus – healthy for future generations.

Biodiversity Vision for the Caucasus Ecoregion

The Caucasus is a region where healthy populations of native plants and animals flourish, habitats, landscapes, ecological processes and ecosystem services are preserved taking into consideration regional implications of global climate change, and where vibrant and diverse people actively participate in the equitable and sustainable management of natural resources.

2. MAIN BIOMES OF THE CAUCASUS

The Caucasus' unique geology and terrain, consisting of three major mountain chains separated by valleys and plains, and diverse climatic conditions have created a wide variety of topographic features and landscapes. On the North Caucasus Plain the vegetation changes from steppe communities in the west to semi-desert and desert habitats in the east. Moving south, the Greater Caucasus Range rises above the plain with several peaks over 5,000m, covered by broadleaf and coniferous forests at their lower elevations and subalpine and alpine meadows, glaciers and snowfields. The Greater Caucasus Range gives a way to the narrow South Caucasian Depression, with rich alder and Caucasian wing-nut swamp forests in the Kolkheti Lowlands to the west, and steppes, arid woodlands, semi-deserts and deserts to the east. The Lesser Caucasus Range rises to the south of this depression, with broadleaf and coniferous forests and subalpine-alpine meadows and shrublands with participation of dry ecosystems in the southern part. Abutting the Lesser Caucasus mountains are the Southern Uplands, characterized by mountain steppe. The Talysh-Alborz Mountain Range in the south-eastern corner of the ecoregion extends along the Caspian Sea from south-eastern Azerbaijan to northern Iran, where broadleaf forest, mountain steppe and alpine meadow ecosystems are found.

Forests

Forests cover nearly one-fifth of the Ecoregion. Broadleaf forests, consisting of Oriental Beech, Oak, Hornbeam and Chestnut, make up most of the forested landscape of the Caucasus; most Oak species are endemic. Dark coniferous forests dominated by Oriental Spruce and Caucasian Fir are found in the western part of the Lesser Caucasus Range and on both sides of the western and central Greater Caucasus Range. Pine forests occur in the North Caucasus and in the Kura River watershed in Georgia and Azerbaijan in the South Caucasus. Arid open woodlands form on dry, rocky slopes in the eastern and southern Caucasus, made up of Juniper and Pistachio species. Lowland forests are found in floodplains and on low river terraces, growing on alluvial, swampy, or moist soils. Endemic forest plants have survived in the Colchic and Hyrcanian refugia, including Imeretian and Pontic Oaks, Medwedew's Birch, Ungern's and Smirnow's Rhododendron, Chestnut-leaf Oak and Hyrcanian Poplar. Many of the region's threatened large mammals depend on forests, including Caucasian Leopard, Brown Bear, Bison, Bezoar Goat, Caucasian Red Deer and Chamois.

High Mountains

High mountain ecosystems include alpine meadows, rhododendron thickets, alpine mats and rock and scree communities. About 1,000 vascular plant species are found in high mountain landscapes and half of these are endemics. High mountain meadows are dominated by herbaceous species. Caucasian rhododendron thickets grow on north facing slopes in the Greater Caucasus Range and in the northern part of the Lesser Caucasus. Alpine mats, formed by dense low-lying perennial plants, cover the terrain on the upper belts of these two mountain systems. Unique communities of cliff and rock vegetation are distributed throughout the high mountains of the Caucasus. High mountain ecosystems provide key habitats for the globally threatened Western Tur, Mouflon and Darevsky's and Dinnik's Vipers. Some large mammals that inhabit the upper part of the forest belt are also strongly associated with the high mountains, including Bezoar Goat and Chamois. Alpine meadows host several endemic reptiles, the endemic Long-clawed Mole Vole, several species of endemic Birch mice and Snow voles. High mountains provide key habitats for large scavenging bird species such as the regionally threatened Lammergeyer and some of the region's globally threatened insects such as Apollo butterfly and alpine Capricorn Beetle.

Steppes

Steppe landscapes are found in the plains and foothills of the eastern and southern Caucasus and in dry mountain regions of the southern Caucasus. Only fragments of primary steppe vegetation survive, mainly on terrain unsuitable for agriculture. Steppe mammals include the globally threatened Saiga Antelope, which used to be found in the most northern part of the region, and Marbled Polecat, which occurs in the mountain steppes of the southern Caucasus. Steppes on both sides of the Caucasus provide habitats for mammalian predators such as Wolf, Golden Jackal and Fox. Birds of the lowland steppes include the near threatened Little Bustard and various species of waterfowl congregating near lakes and wetlands. Reptile residents of the steppes to the north of the Greater Caucasus include Sand Lizard, Multi-oscillated Racerunner, Large Whip Snake, and Orsini's Viper. Mountain steppes in the southern Caucasus harbour the Darevsky's Viper and Valentine's Lizard.

Dry Mountain Shrublands

Shrublands are dry habitats formed from communities of herbaceous and woody plants typically less than two metres high. They mostly occur between 1,500 to 2,000 m above sea level and up to 2,500 m in places. Shrublands provide habitats for the globally threatened Leopard and regionally threatened Striped Hyena as well as commoner species such as Brown Bear, Wolf and Golden Jackal. Shrubland birds include the globally endangered Egyptian Vulture, Chukar, Griffon Vulture, European Bee-eater, Eurasian Roller and shrikes and wagtails. Shrubland landscapes host over fifteen species of snakes and eleven species of lizards. Notable reptile species include the venomous Levantine Viper and Mediterranean Tortoise. The most common shrubland amphibians are Syrian Spadefoot Toad and Asia Minor Tree Frog. Several species such as Radde's Viper and Persian Dwarf Racer or Black-headed Ground Snake are found only in areas along the Ara(k)s valley. A number of endemic insects are found in shrublands, including Caucasian Zerinthia.

Semi-deserts

Semi-deserts were once widespread in the lowlands and foothills of the eastern part of the Caucasus, but agricultural development, irrigation, and winter grazing practices have significantly altered the landscape. Wormwood semi-deserts formed from various species of wormwood interspersed with feathergrass, liquorice and camel's thistle are found on plains in the eastern part of the Caucasus. Various species of saltwort live on saline soils intermixed with wormwood. Salt semi-deserts are distributed over a large territory on parts of the plains: here tree-like saltwort grows on slightly saline soils used as pasturelands; as salinity increases, bluish saltwort and small-leaved seablite begin to take over the terrain, while on highly saline soils along the Caspian Sea salt-tolerant species form mounds and salt tussocks.

Regions of rocky highland desert are found on gypsum deposits in the foothills of the Ara(k)s valley in southern Armenia: a broad strip of this type of desert runs through the Sahara, southern Iran, and Afghanistan, its northern tip reaching into the Caucasus. Sparse, poor vegetation cover is typical for rocky deserts, but the plant species composition is unique.

Semi-deserts are key habitats for Goitred Gazelle in the eastern Caucasus, Saiga Antelope and Giant Mole Rat in the north-eastern part of the region, and jirds and jerboas in northern Caucasian semi-deserts. Semi-desert birds include Lesser Kestrel, Eurasian Roller, Crested Lark and various buntings and wheatears. Toad-headed Agamas make up the most diverse group of reptiles in the north-western Caspian region and Ara(k)s valley. Other typical semi-desert reptiles are racerunners, Snake-eyed Lizard, Long-legged Skink, Four-striped Racer and Lizard Snake.

Wetlands

Wetlands include lakes (natural and man-made), rivers, swamps and marshes, wet grasslands, peatlands, estuaries, deltas, tidal flats and other coastal areas. The largest wetland landscape is Lake Sevan in Armenia – a Ramsar site with a surface area of 1,262 km². The high mountains of the western and central parts of the Greater Caucasus are dotted with small glacial and karst lakes (on limestone ridges). Lakes formed by volcanic processes lie in the Javakheti-Armenian Highlands.

Swamp alder forests and unique lowland peat bogs are found in the lower reaches of the Rioni River around Paliastomi Lake. Low-lying mires occur in the Kura-Ara(k)s valley along main rivers and irrigation channels: the most significant of these are reed- and cattail-covered swamps near Ag Gel (Aghgol) and Sarysu lakes in Azerbaijan. For generally arid regions, lowland wetlands play an important role in maintaining biodiversity. Highland bogs are also critical for a number of species which occur only in those habitats. High mountain wetlands occupy large areas on the Javakheti Plateau and in the Southern Highlands (the southern part of the Lesser Caucasus Mountain Chain).

Wetlands and lakes are particularly important habitats for waterfowl, providing nesting sites, wintering areas and stopovers during migration. Over 150 species of waterfowl nest on lakes in the Caucasus, including Corncrake, Black-winged Pratincole, Pygmy Cormorant, and globally threatened Lesser White-fronted Goose.

Large lakes and rivers provide habitat for Otter. The most abundant amphibians and reptiles are lake frogs, grass snakes, European Pond Turtle and Caspian Terrapin. More than 160 fish species occur in lakes and rivers, and over 50 species of them are endemic to the Caucasus. Globally critically endangered Sturgeon species and Beluga are also hosted by certain rivers as they migrate from the Seas into freshwater to spawn.

Sea and Coast

The Caspian, Black and Azov Seas provide habitats for numerous invertebrates, waterfowl, and fish including globally critically endangered Sturgeon species and Beluga. Over 120 species of fish inhabit the Caspian Sea and it is also home to the globally threatened Caspian Seal. Three mammal species live in the Black Sea: Bottlenose Dolphin, Short-beaked Common Dolphin and Harbour Porpoise, and they all are protected under the Bonn Convention. A significant share of fish and invertebrates in the Black Sea are relicts of the time (over ten million years ago) when the joined basins of the Black and Caspian Seas were completely separated from the Mediterranean. These Caspian-Black Sea relict species, as they are called, coexist today with widespread Mediterranean species, which penetrated into the Black Sea during a later period.

The region's seas and coasts offer important habitat for migrating waterfowl. Sociable Lapwing, Marbled Teal, Lesser White-fronted Goose, Red-breasted Goose and White-headed Duck are some of the globally threatened birds that migrate along the Caspian's coastal regions. The most significant bird habitats are located along the coast of the Black Sea in the Kolkheti Lowlands and along the Azov seashore in the delta of the Kuban River. The most numerous nesting birds are gulls, sandpipers, and terns. The diversity of wintering birds and those that use the Black Sea coast as a stopover area during migrations is much higher. Grebes, egrets, herons, swans, cormorants, and at least ten species of ducks and diving ducks congregate here. Migrating birds of prey gather near Batumi in an important bottleneck. Over thirty species of raptors can be seen along the Black Sea coast.

3. THREATS TO BIODIVERSITY

The biodiversity of the Caucasus is being lost at an alarming rate. Nearly half of the lands in the Ecoregion have been transformed by human activities. The plains, foothills, low-mountain and subalpine belts have been the most heavily impacted. Native floodplain vegetation has been badly affected: only two to three percent of original riparian forests remain in the South Caucasus. Most natural old growth forests have been fragmented into small sections, divided by areas of commercial forests or plantations, as well as agricultural and developed lands. A study in 2017 inspired by the Nature Needs Half coalition found that nature is imperilled in more than half of the Caucasus. Only about a quarter of the region remains in reasonable condition and no more than 12% of the original vegetation, including forests, can be considered pristine.

Nowadays the major proximate threats to biodiversity in the ecoregion are infrastructure development, unsustainable and illegal logging, overgrazing, poaching, overfishing, mining and climate change. These threats, which affect the Caucasus' various ecosystems at different scales, lead to habitat degradation and fragmentation, decline of species populations and disruption of ecological processes – all amplifying the overall loss of biodiversity.

Infrastructure Development

Infrastructure development, including hydropower, roads, electricity transmission lines and pipelines, when inappropriately planned and monitored, cause fragmentation of natural habitats and contribute to habitat loss. Especially concerning is the lack of strategies for sustainable development of hydropower in some countries of the Caucasus: the construction of numerous medium and small hydropower plants will have severe impacts on the ecosystems of the mountain gorges where much of the ecoregion's biodiversity is preserved; cascades of larger plants with large dams could cause irreversible transformation of native ecosystems in certain areas of the Caucasus by destroying the ecological balance in larger mountain valleys.

Unsustainable and Illegal Logging

Unsustainable and illegal logging are still causing habitat degradation and threatening biodiversity in the region's forests. The main drivers are the demand for fuel wood from rural households that do not have access to or cannot afford to pay for alternative forms of energy, and profit-seeking by the timber trade. These drivers are facilitated by a lack of capacity in forest management and supervision bodies to exercise controls.

Overgrazing

Overgrazing by livestock threatens steppe, semi-desert, subalpine, and alpine ecosystems, especially in countries with a well-developed sheep breeding industry. Overgrazing is causing environmental damage in much of the Ecoregion, particularly along the Kuma-Manych depression, the Greater Caucasus Mountain Range, river valleys in the South Caucasian depression, the Javakheti Highlands, the Lesser Caucasus, and the northern part of the north-west Iranian mountains. A considerable part of pasturelands in the region are subject to erosion. Sheep grazing on winter pastures of steppes and semi-deserts in the eastern Caucasus has significantly increased during the last two decades. Intensive grazing has resulted in reduced species diversity and habitat degradation. Grazing of cattle in forested areas disturbs undergrowth and creates competition for wild ungulates.

Poaching

Overhunting of legally allowed game species and poaching of non-game species, most of which are rare, are widespread in mountain regions. Sometimes, government agencies set quotas for game species without carrying out appropriate research on game numbers and population dynamics. Thus, quotas are often too high to ensure that viable populations of game animals (mostly ungulates) are maintained. Managers of protected areas are not authorized to fight against poaching outside their boundaries. The number of large herbivores in the Ecoregion fell dramatically in the 1990s largely due to poaching and overhunting. Since the start of the 21st century, the populations of the most impacted species, such as Caucasian Red Deer, Eastern and Western Turs, Bezoar Goat, Mouflon and Brown Bear, have started to recover, supported by the creation of many new, effectively managed protected areas. But problems are still obvious: Saiga Antelope is rare in the region due to the dramatic decline of the Kalmykia source population; less than 300 Western Turs are left in Georgia; only a small population of Bezoar Goats survives and is restricted to parts of the Eastern Greater Caucasus; the number of Leopards does not exceed 60 individuals in the whole region.

Overfishing

Overfishing is widespread in the Black, Caspian and Azov Seas and rivers that flow into them, driven mainly by unsustainable management of fish resources and illegal catch. Fishing quotas are often defined without thorough research of sustainably available resources leading to the decline of fish stocks. Globally threatened sturgeon species have been fished to critical levels due to the demand for caviar. The number of sturgeon individuals has fallen by more than 95% over the last 100 years; some sturgeon species will soon become extinct if illegal fishing is allowed to continue. Fish inspection agencies are often powerless to halt poaching mainly because of lack of the capacity to fight against it. Overfishing also impacts lakes and rivers, where it is mostly the result of illegal fishing driven by poverty.

Mining

The Caucasus is rich in valuable resources, including oil and gas, gold, silver, copper, manganese and molybdenum. Mining activities and related infrastructure development and operation have become an increasing threat to the biodiversity of the Ecoregion in recent decades. The expansion of mining is often at the expense of the welfare of local communities who depend on the biodiversity and ecosystem services that mining destroys or severely damages.

Climate Change

The Caucasus region already shows changes in climate caused by global warming, with increasing temperatures, shrinking glaciers, sea level rise, reduction and redistribution of river flows, decreasing snowfall and an upward shift of the snow line and timberline. Extreme weather events have become more frequent during the last twenty years, causing flooding, landslides, forest fires and coastal erosion with significant economic losses and human casualties. Damages due to flooding, hail, drought and erosion in the three South Caucasus countries amounted to hundred millions of Euro during the last ten years.

4. MAIN ACTORS IN THE ECOREGION

Biodiversity conservation in the Caucasus Ecoregion requires an integrated approach to the often complex social, political, economic, and environmental issues that need to be addressed. Many different actors work in support of biodiversity conservation in the Ecoregion: the local people and their communities who depend on the resources of the Caucasus's natural landscapes for their livelihoods, the Governments of the Caucasus countries, bilateral and multilateral donors, non-governmental organisations and foundations, scientific institutions and the business sector. Mass media also provides significant support by communicating key messages about the value of biodiversity and the need for conservation actions.

Local People and Communities

Local people and communities are key actors in the fulfilment of the ECP's ultimate goal of halting the loss of biodiversity and enabling its recovery through the establishment of an Ecological Network in the Caucasus: without their active involvement from the very first stages of planning, it is impossible to establish PAs and manage them effectively or to create ecological corridors. The health of the ecosystems within the ECP's Conservation Landscapes, and the dynamics of the populations of animal and plant species inside those ecosystems, depend fundamentally on local people's stewardship. At the same time, local people are the main direct beneficiaries of biodiversity conservation because the ecosystem services that sustain them are maintained and they get income from implementing measures financed by conservation projects and increased demand for agro- and eco-tourism. Cooperation with local people is taking place within the frameworks of many nature protection projects that are being implemented in the Caucasus. Nevertheless, there is scope for even greater cooperation and implementation of ECP 2020 is an important opportunity to achieve that.

Governments of the Caucasus Countries

The Governments of the Caucasus countries establish the policy environment and legal framework for the conservation and sustainable use of biodiversity. The relevant Ministries through their departments and agencies administer legislation and regulate the management of natural resources, protected areas, forest and freshwater. They provide basic financing for biodiversity conservation and create an enabling environment for cooperation and investments in nature protection. State budgets cover the salaries for officers and research staff, environmental protection officials and managers of state forests and protected areas, infrastructure, equipment and their operating costs. The Governments have been strengthening the framework conditions for biodiversity conservation and sustainable use of natural resources by expanding protected areas networks, improving legislation and enhancing the capacities of state organisations.

Bilateral Donors

Major bilateral donors, currently providing funding directly for biodiversity conservation or promoting it through supporting sustainable resource use and development of alternative livelihoods in the Caucasus, include the Governments of Austria, the Czech Republic, Germany, Norway, Sweden, Switzerland and the United States of America.

The Austrian Development Cooperation (ADC) through the Austrian Development Agency (ADA) aims at reducing poverty, protecting natural resources, promoting sustainable development and improving conditions of life. Armenia and Georgia have been priority countries for the ADC since 2011. In the frame of its cooperation with these countries, the ADC mainly concentrates on forestry, agriculture, rural development and good governance to support sustainable forest and watershed management, climate resilience and reduction of poverty in rural communities.

The Czech Republic through the Czech Development Agency supports Georgia in the frame of a Bilateral Development Cooperation Programme which helps in the implementation of priority actions under the EU-Georgia Association Agreement. Environmental projects launched since 2010 have focused on mitigating the impacts of extreme climate events. The results include installation of meteorological and hydro-meteorological stations, a database for processing climate data, improved meteorological safety along Georgia's main transport routes, landslides mapping and a landslide alert system developed for the risk area of Dusheti, Mtskheta-Mtianeti region. There are also ongoing activities focused on forest inventory and sustainable forest management in the protected areas of Tusheti and strengthening the management of Imereti Caves. The Czech Republic plans to extend its support to the sustainable development of Georgia's mountain regions through the conservation of mountain ecosystems and biodiversity, improving management effectiveness of mountain PAs, and strengthening resilience and adaptive capacity to climate-related hazards and natural disasters.

The Government of Germany has been supporting biodiversity conservation in the Ecoregion since 1998, when the Federal Ministry for Economic Cooperation and Development (BMZ) provided the financial support through KfW Development Bank (KfW) to create the first and one of the largest National Park in the South Caucasus - Borjomi-Kharagauli National Park. Since then, BMZ/KfW has provided the financing to establish four more national parks in the Caucasus: Lake Arpi National Park in Armenia, Javakheti and Pshav-Khevsureti National Parks in Georgia, and Samur-Yalama National Park in Azerbaijan.

BMZ/KfW has also provided capital for special funding mechanisms that have been established to support the conservation of the unique biodiversity of the Caucasus – the Caucasus Nature Fund (discussed later in this chapter) and the Eco-Corridors Fund (ECF). The ECF is a long-term funding instrument in the South Caucasus aiming at biodiversity conservation and preservation of large, sustainably used landscapes through contractual nature conservation. By funding ecologically sustainable land use in selected eco-corridors/landscapes, the ECF is contributing to the development of Ecological Networks and enhancing connectivity and ecological sustainability while ensuring the socio-economic status of local communities is not harmed and in many cases improved.

BMZ/KfW, through the Transboundary Joint Secretariat (TJS), supports the development and improvement of management effectiveness of PA systems and species restoration programmes (Red Deer in Armenia, Bison in Azerbaijan and Goitered Gazelle in Georgia) and fosters regional and transboundary cooperation for biodiversity monitoring and nature conservation in the South Caucasus.

In addition to financing biodiversity conservation measures, BMZ/KfW invests in development of solid waste management systems and supports integrated management of municipal water, including drinking water supply and wastewater disposal, in the South Caucasus.

The Government of Germany through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) supports a large-scale programme for integrated biodiversity management in the South Caucasus. The programme includes capacity development for key institutions, elaboration of National Biodiversity Strategies and Action Plans (NBSAP), revision of biodiversity-related legislation, forest policy and inventory, development of forest information and monitoring system, rehabilitation of degraded pasturelands, management of natural resources, and environmental awareness and education.

The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) has financed climate change adaptation and landscape restoration measures with a focus on forests in Armenia, Azerbaijan and Georgia. The BMU is financing the establishment of a UNESCO Biosphere Reserve in the climate-vulnerable region of Kakheti in eastern Georgia. The BMU also supported the process of nomination of Colchic Forests and Wetlands of Georgia for inscription on the UNESCO World Heritage List.

The Government of Norway provided the financial support for establishing the Mtirala National Park in Georgia as well as for measures to improve the social and economic conditions of local communities around the National Park. In Azerbaijan, the Government of Norway has supported capacity-building and tourism development measures for Shirvan and Shahdag National Parks, while in Armenia it financed a biodiversity protection and community development programme which has strengthened Khosrov Forest and Shikahogh State Reserves, the newly established Arevik National Park and Zangezur Sanctuary, and helped in the improvement of social and economic conditions of local communities around the protected areas. The Government of Norway also funded basic studies for promoting sustainable hydropower development in the South Caucasus and supported a regional project on mainstreaming biodiversity values into decision-making and encouraging a regional approach at various levels of biodiversity governance in Armenia, Azerbaijan and Georgia.

The Government of Sweden through the Swedish International Development Cooperation Agency (SIDA) contributes to the improvement of the environmental performance in Georgia. In particular, SIDA assists Georgia in addressing waste management problems by supporting the construction of waste disposal facilities and wastewater treatment plants as well as by increasing understanding and awareness about environmentally sustainable waste management. SIDA also supports Armenia and Georgia in the frame of the regional programme on Eastern Europe Energy Efficiency and Environment Partnership.

The Government of Switzerland through the Swiss Agency for Development and Cooperation (SDC) supports sustainable agriculture and development of climate change adaptation capacities as well as disaster risk management and rural development in the South Caucasus countries.

The United States Agency for International Development (USAID) has been supporting Armenia, Azerbaijan, Georgia and Russia over the past two decades. USAID, among many other areas, has provided assistance in the fields of environmental governance and the protection, sustainable and integrated management of natural resources, environmental education and awareness raising, capacity development for enhancing the management effectiveness of protected areas, sustainable agriculture, climate change mitigation and renewable energy development and energy efficiency. Currently, USAID helps the inter-linked energy and water sectors and supports sustainable management of groundwater reserves in the Ararat Valley in Armenia. In Georgia, USAID supports policy development and capacity building for establishing sustainably functional waste management and recycling facilities and services at local and national levels. In 2019, USAID launched the continuation of the U.S. Department of the Interior's International Technical Assistance Program mainly focused on organizational capacity of protected areas, sustainable ecotourism and generating economic opportunities in Georgia.

Multilateral Donors

The Global Environment Facility (GEF) acting through the United Nations Development Programme (UNDP) and the World Bank have supported biodiversity conservation projects throughout the Ecoregion. GEF's portfolio of completed projects in the Caucasus includes the development of National Biodiversity Strategy and Action Plans (NBSAP), extending PA networks through the creation of new protected areas, capacity building and strengthening management effectiveness at site and system levels, climate mitigation and adaptation actions, and measures to conserve and promote the sustainable use of biodiversity.

The GEF's current environmental portfolio across the Ecoregion encompasses a wide range of projects including the financial sustainability of protected areas, forest assessment and monitoring, sustainable land and forest management, conservation and sustainable use of biodiversity, capacity building, climate change mitigation and adaptation measures, enhancing livelihoods in rural communities through promoting sustainable agriculture and environmental education and awareness raising among key stakeholders.

The European Union (EU) has financed a number of regional and country projects that have supported the goals of the ECP. In 2011-2014, the EU financed the project - "Increasing the resilience of forest ecosystems against climate change in the South Caucasus countries through forest transformation". In 2013-2017, the EU supported the implementation of the regional Forest Law Enforcement and Governance Programme (FLEG II) in seven EU neighbourhood countries including the South Caucasus, building on the results of FLEG I implemented in 2008-2012. In Armenia and Georgia, FLEG II has also been supported by the ADC/ADA. In 2012-2016, the EU supported the development of the Emerald Network under the Bern Convention in all three countries of the South Caucasus, succeeding in the identification and legal recognition of Emerald sites.

Currently, the EU provides support in the fields of environmental governance, capacity building, biodiversity conservation, sustainable forest management, climate change mitigation and adaptation measures, sustainable energy efficiency, and environmental policy and legislation. In 2019, the EU launched two regional projects for Eastern Partnership countries in the areas of climate change and people's environmental well-being - EU4Climate and EU4Environment. The EU4Climate will support countries to fulfil their commitments under the Paris Agreement on climate change, improve climate policies and legislation and reduce the impact of climate change on the environment and people's lives. The EU4Environment will help countries to preserve natural capital, improve environmental governance and compliance, and increase people's environmental well-being through green growth and better management of environmental risks and impacts.

The Green Climate Fund (GCF), the UNFCCC's financial mechanism, is becoming an important actor in the region, supporting countries' responses to the challenges caused by climate change. The GCF aims to support developing countries in climate change mitigation and adaptation measures, focusing on reducing greenhouse gas emissions. The GCF intends to expand its portfolio and engagement in the Caucasus. The first steps are being taken in the South Caucasus countries: Armenia is focusing on forest resilience (through FAO), Azerbaijan is working on adaptation planning and capacities for the implementation of Nationally Determined Contributions in the agriculture sector (through UNDP and FAO) while Georgia is implementing a project on scaling-up a pilot multi-hazard early warning system and the use of climate information (through UNDP).

International Conservation Organizations and Foundations

The World Wide Fund for Nature (WWF) has been active in the Ecoregion for over 25 years working through WWF Offices in Armenia, Azerbaijan, Georgia, Russia and Turkey. WWF has played a key role in developing and promoting the Ecoregional approach for biodiversity conservation in the Caucasus and in forging partnerships with and between other actors in the government and non-government sectors, and the donor and scientific communities. Many of the results of the investments made over the years stem from WWF's strategic planning and approaches. WWF has been implementing a wide spectrum of national, regional and transboundary projects for nature protection in the Caucasus covering the thematic areas of forest, freshwater, climate, species conservation and restoration, protected areas and connectivity, and environmental education and awareness raising among key stakeholders and wide public.

The International Union for Conservation of Nature (IUCN) established a profile in the Caucasus in the mid-1990s, when national NGOs joined as members. In 2007, the IUCN Programme Office for the Southern Caucasus was established in Tbilisi, Georgia; later it was renamed as the Caucasus Cooperation Centre. During its direct presence in the region in 2007-2018, the thematic priorities for the IUCN in the South Caucasus included protected areas, biodiversity conservation and monitoring, forest governance and environmental awareness. Currently, the IUCN is represented in the Ecoregion through its member organizations.

Fauna and Flora International (FFI) has been working in the region since 2009, initially focusing on human-carnivore conflicts in Georgia and Armenia followed by studies on the illegal wildlife trade in these countries. Recent initiatives are focused on the conservation of the Gergeranian pear in Armenia and the conservation of raptors and sturgeon species in Georgia.

The Caucasus Nature Fund (CNF), established in 2007 by the Government of Germany (BMZ), Conservation International and WWF, is a sustainable funding mechanism for protected areas in the South Caucasus. The CNF provides matching grants for operating costs of National Parks and Nature Reserves. The CNF also supports capacity building, the development of management plans and biodiversity monitoring systems, and sustainable economic development and livelihoods in the local communities through ecotourism programmes.

The Critical Ecosystem Partnership Fund (CEPF) is a joint initiative of l'Agence Française de Développement, Conservation International, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank. Between 2004 and 2010, the CEPF invested \$8.5 million in the Ecoregion (Caucasus Hotspot) for biodiversity conservation and the sustainable use of natural resources. The funding was channelled to civil society organisations through a competitive grant scheme. In this way the CEPF's investment helped to build implementation capacity in the non-governmental sector, increase regional and transboundary cooperation and enhance the involvement of scientific institutions, all of which facilitated progress towards the conservation targets of the ECP.

The Michael Succow Foundation has been active in the Ecoregion since 2000. The Foundation is focused on the development of world heritage sites, National Parks and Biosphere Reserves; the protection of wetlands; advancing the concept of nature conservation through scientific research and ecological education; and promotion of international relations in nature conservation and ecology. Currently, the Foundation, with the BMU's financial support and in close cooperation with key partners and

stakeholders, continues working towards the inscription of Colchic Forests and Wetlands of Georgia on the UNESCO World Heritage List and for the establishment of a UNESCO Biosphere Reserve in the climate-vulnerable region of Kakheti in eastern Georgia. The Foundation is also involved with assessing the feasibility of establishing a UNESCO Biosphere Reserve in climate vulnerable regions in Armenia. Commissioned by GIZ, the Foundation supported the Baku State University to improve the teaching of ecology and biology and to strengthen the aspect of landscape ecology.

Regional and National NGOs

The Regional Environmental Centre for the Caucasus (REC Caucasus), founded by the Governments of Azerbaijan, Armenia, Georgia and the European Union, assists with capacity building, provides information, encourages dialogue and public participation in environmental decision-making, and plays a role in interagency cooperation. REC Caucasus is currently working in the areas of sustainable land and water resources management, sustainable forest management, biodiversity conservation and waste management. Another regional NGO - the Caucasus Environmental Non-Governmental Organization Network (CENN) - has been working in the region since 1998 in the areas of forest, climate change, environmental education, and promoting sustainable management of natural resources.

There are a number of national NGOs in the region that are focused on biodiversity conservation issues, among them: in Armenia, Armenia Tree Project (ATP), Foundation for the Preservation of Wildlife and Cultural Assets (FPWC) and the Armenian Society of Biologists; in Azerbaijan, International Dialogue for Environmental Action (IDEA) working at both national and international levels, Azerbaijan Ornithological Society (AOS) and “EcoSphere” Social-Ecology Centre; in Georgia, Centre for Biodiversity Conservation & Research (NACRES), Society for Nature Conservation (SABUKO), Field Researchers` Union (CAMPESTER) and Biological Farming Association Elkana; in Iran, NGO West Azarbaijan; in Russia, Centre for Conservation for the Caucasus in Russia; in Turkey, Nature Conservation Center (DKM), Nature Research Society, Doğa Society and KuzeyDoğa Society. Also, there are environmental NGOs actively engaged in lobby and advocacy, including the Georgian NGOs - Green Alternative and the Greens Movement of Georgia (Friends of the Earth Georgia).

Scientific Institutions

Scientific institutions in the Ecoregion provide new knowledge about the health and dynamics of species populations and ecosystems as well as a new thinking and approaches for conservation measures. The leading scientific institutions from every country of the Ecoregion have participated in the revision of the Ecoregional Conservation Plan and their future involvement is crucial for further strengthening of science-based conservation as well as policy- and decision-making.

Business Sector

Support from the business sector for biodiversity conservation has been quite low compared with other actors but there have been some important precedents in the region. The CNF`s success in attracting new donors from the business sector as well as the support of HSBC Armenia for the reintroduction of Red Deer in Armenia and the contribution of VTB Bank to the reintroduction of Leopard in the Russian part of Caucasus are encouraging signs for future.

5. THE ECP AS A REGIONAL INSTRUMENT FOR IMPLEMENTING BIODIVERSITY RELATED CONVENTIONS IN THE CAUCASUS

The countries of the Caucasus Ecoregion are contracting parties to global and regional treaties in the field of environment protection, including the three Rio Conventions on Biological Diversity, Climate Change and Desertification and five other important biodiversity-related conventions (Table 1, Box 1). As contracting parties to these Conventions, the Caucasus countries have signalled their commitment to address biodiversity loss, climate change and desertification, protect and restore biodiversity and ecosystem services, promote sustainable use of natural resources, control illegal wildlife trade and designate some of their most significant natural and cultural sites of outstanding universal value as heritage for humanity.

Table 1. Contracting countries from the Caucasus Ecoregion to the Rio Conventions and other biodiversity-related conventions

Country	The Rio Conventions			Biodiversity-related Conventions				
	UNCBD	UNFCCC	UNCCD	CMS	CITES	RAMSAR	WHC	BERN
Armenia	1993 (A)	1993 (A)	1997 (R)	2011 (party)	2008 (a)	1993	1993 (S)	2008 (R)
Azerbaijan	2000 (AA)	1995 (R)	1998 (a)	----	1998 (a)	2001	1993 (R)	2000 (a)
Georgia	1994 (a)	1994 (a)	1999 (R)	2000 (party)	1996 (a)	1997	1992 (S)	2009 (R)
Iran	1996 (R)	1996 (R)	1997 (R)	2008 (party)	1976 (R)	1975	1975 (A)	----
Russia	1995 (R)	1994 (R)	2003 (a)	----	1992 (C)	1977	1988 (R)	----
Turkey	1997 (R)	2004 (a)	1998 (R)	----	1996 (a)	1994	1983 (R)	1984 (R)

Acronyms: *UNCBD – United Nations Convention on Biological Diversity; UNFCCC – United Nations Framework Convention on Climate Change; UNCCD – United Nations Convention on Combatting Desertification; CMS - Convention on the Conservation of Migratory Species of Wild Animals; CITES - Convention on International Trade in Endangered Species of Wild Fauna and Flora; Ramsar - Convention on Wetlands of International Importance, especially as Waterfowl Habitat; WHC - Convention Concerning the Protection of the World Cultural and Natural Heritage; BERN - Convention on the Conservation of European Wildlife and Natural Habitats. AA = Approval; A = Acceptance; a = Accession; C = Continuation; R = Ratification; S = Notification of succession.*

The Rio Conventions on Biological Diversity, Climate Change and Desertification are inherently related as they share the overall goals of environment protection, climate change mitigation and adaptation, biodiversity conservation, wise use of natural resources and promoting sustainable development. There is growing recognition of the importance of close collaboration and efficient coordination among them, especially at regional levels, in order to achieve progress in conservation of biodiversity and combating climate change and desertification.

The Rio Conventions and the other biodiversity-related conventions described in Box 1 form the foundation of the environmental dimension of the United Nations 2030 Agenda for Sustainable Development (the 2030 Agenda) which recognizes the fundamental connections between nature, sustainable development and human well-being.

The 2030 Agenda, with its 17 Sustainable Development Goals (SDGs) and 169 targets, represents a global blueprint that calls on all countries to develop and transform policies, strategies and systems to support a better and a more sustainable future. The 2030 Agenda includes SDGs focused on climate, nature and biodiversity: in particular, SDG 6 is about clean water and sanitation, SDG 13 – climate action, SDG 14 – life below water, and SDG 15 – life on land. In addition to these specific SDGs, most of the other SDGs are also related to climate and nature issues, which emphasises the fact that the 2030 Agenda will not be achieved if countries fail to deliver on the environmental targets. The 2030 Agenda encourages countries to develop national responses to the SDGs and incorporate them into planning, strategies and policy.

The countries of the Caucasus Ecoregion have national strategies and action plans in place to fulfil the objectives of global and regional environmental treaties; for example, National Biodiversity Strategy and Action Plans under the CBD, Nationally Appropriate Mitigation Actions and Nationally Determined Contributions under the UNFCCC, and National Action Programmes under the UNCCD. There are also a number of ongoing initiatives in the frame of the other biodiversity-related conventions; for example, the development of the Emerald Network in the South Caucasus countries in the frame of the Bern Convention. Caucasus countries are also implementing measures to achieve the 2030 SDGs.

The CBD and some other biodiversity-related conventions promote transboundary and regional cooperation, and the CBD specifically seeks mechanisms for implementing the Convention at regional level. The ECP provides a unique opportunity for the Governments of the Caucasus Ecoregion to enhance collaborative actions in the region and prove the potential of regional and transboundary cooperation for better conservation of biodiversity in the Caucasus.

A regional approach allows actions to be designed and implemented at a scale large enough to achieve ecologically viable results, ensuring healthy ecosystems and the persistence of biodiversity. Working on a regional scale facilitates implementation of the ecosystem approach – a strategy advocated by the CBD for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way and recognizes that humans are an integral component of many ecosystems. The ecosystem approach is the primary framework for actions under the CBD.

The regional dimension of the ECP promotes and enhances national level actions by allowing them to be viewed in the frame of a Caucasus-wide Ecological Network that takes into account the representation of ecosystems and species within the entire Ecoregion, ensures the ecological connectivity of forest and freshwater ecosystems across national boundaries, contributes to climate mitigation and adaptation, supports the resilience of ecosystems and biodiversity by acting as a refuge against the impacts of climate change and giving ecosystems and populations the space to adapt, and promotes cooperation in research and monitoring across the Ecoregion.



Box 1. The Rio Conventions and five other biodiversity-related conventions

UN Convention on Biological Diversity (CBD) aims at the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising from the utilization of genetic resources. The CBD sets targets and provides guidance to countries through multi-annual strategic plans. The Strategic Plan for Biodiversity 2011-2020 set 20 global targets (the Aichi Biodiversity Targets) grouped under five strategic goals: address the underlying causes of biodiversity loss; reduce the direct pressures on biodiversity and promote sustainable use; improve the status of biodiversity; enhance the benefits to all from biodiversity and ecosystem services; enhance implementation of the Convention. The CBD obliges its parties to develop and implement National Biodiversity Strategy and Action Plans (NBSAP) to fulfil the objectives of the Convention. A new strategic plan is being developed to replace the current one when it expires in 2020.

UN Framework Convention on Climate Change (UNFCCC) establishes an overall global framework to reduce emissions of carbon dioxide and other so-called greenhouse gases and to mitigate the impacts of global heating. Its main objective is “to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. In the framework of the Paris Agreement, contracting countries have agreed to strengthen their response to the threat of climate change and transform their development with the aim of limiting the rise in global temperature rise to below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. The Paris Agreement requires Parties to prepare, communicate and maintain successive Nationally Determined Contributions to the global goal. Land management can play an important role, for example by conserving and enhancing the carbon dioxide (CO₂) absorption capacity of forests and by reducing GHG emissions from deforestation.

UN Convention to Combat Desertification (UNCCD) addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found. The Convention’s parties work together to improve the living conditions for people in drylands, to maintain and restore land and soil productivity, and to mitigate the effects of drought. The UNCCD’s 2018-2030 Strategic Framework represents a comprehensive global commitment to achieve land degradation neutrality, restore the productivity of the most degraded lands, improve the livelihoods of more than 1.3 billion people, and reduce the impacts of drought on vulnerable populations.

The Convention on the Conservation of Migratory Species of Wild Animals (CMS), also known as the Bonn Convention, provides a global platform for the conservation and sustainable use of migratory animals and their habitats. The CMS lays the legal foundation for internationally coordinated conservation measures throughout a species’ migratory range. Parties cooperate by establishing multilateral agreements on conservation and collaborative research activities. Some countries of the Caucasus are parties to established agreements, including the Agreement on the Conservation of Populations of European Bats (EUROBATS), the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS), and the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) aims to ensure that the international trade in wildlife and their specimens does not threaten the survival of species being traded. The Convention establishes a global system of controls on international trade in over 35,000 species of wild animals and plants (listed in its Appendices) and their products.

The Convention on Wetlands of International Importance, especially as Waterfowl Habitat (The Ramsar Convention) provides the framework for national actions and international cooperation for the conservation and wise use of more than 2,300 sites currently on the Ramsar List of wetlands of international importance. The Convention covers all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation and the well-being of people.

The Convention Concerning the Protection of the World Cultural and Natural Heritage, commonly known as the World Heritage Convention (WHC), primarily aimed at identifying and conserving the world’s cultural and natural heritage sites of outstanding universal value for all humanity. Operating under the auspices of UNESCO, the WHC currently lists 1,121 World Heritage Sites globally - 869 cultural sites, 213 natural sites, and 39 mixed type of sites.

The Convention on the Conservation of European Wildlife and Natural Habitats (The Bern Convention) aims to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the cooperation of several States. Particular emphasis is given to endangered and vulnerable species, including migratory species of the same threatened status. The Convention categorises protected species into four appendices: Appendix I lists strictly protected flora species, Appendix II - strictly protected fauna species, Appendix III - protected fauna species, and Appendix IV - prohibited activities related to methods of killing, capturing and exploiting species.

6. CONCEPTUAL APPROACH AND METHODOLOGY FOR ECP 2020

The ECP provides a blueprint for an Ecological Network comprised of PAs and conserved areas in which biodiversity conservation is prioritised, and corridors in which land and other resources are managed to maintain ecological connectivity. The Ecological Network mapped out by ECP 2020 has similarities to its predecessors but there are some important differences in the overall conceptual approach and the methodologies used to identify the network's component parts.

Conceptual Approach

Previous editions of the ECP included national targets and actions along with regional and transboundary measures. Most Caucasus countries now have well developed National Biodiversity Strategies and Action Plans and the ECP can therefore focus entirely at a regional level; the only exceptions are those national actions which contribute directly to regional conservation, such as the development of protected areas and corridors, and the restoration of globally and regionally threatened species.

The Ecological Network mapped out in ECP 2020 incorporates the relatively new concept of Conservation Landscape and applies the Key Biodiversity Areas (KBAs) approach in place of the Priority Conservation Areas used in previous editions.

The concept of focal species has been dropped from ECP 2020: the KBA approach anyway considers all globally and regionally threatened species. Specific measures are included for those globally and regionally threatened species that already have been targeted by conservation programmes and which need further action. This does not mean that only those few species are targeted: all threatened species that occur in the region are targets of ECP 2020.

The approach to biomes is also changed. Previous editions of the ECP focused on all major biomes but the actions promoted in ECP 2020 address only forests and freshwater as specific subjects: they are the most vulnerable biomes in terms of climate change and human impact and they are the most valuable in terms of maintaining a healthy environment for a sustainable future. Other biomes, while not considered separately, will be addressed by the creation of the Ecological Network and by some of the species conservation and restoration programmes promoted by the ECP.

Regarding timescale, ECP 2020 sets medium-term (15-year) targets to be achieved by 2035 and five-year actions to be implemented by 2025 together with action-based indicators. Previous editions set longer term targets. This change is associated with a reduction in the number of action tables, targets and actions: the ECP 2020 consists of 4 action tables (instead of 6 in ECP 2012), 13 medium-term targets (instead of 73) and 86 five-year actions (instead of 189).

Thus, the ECP has been transformed into a clearly regional instrument for biodiversity conservation and its targets are more achievable and its actions more feasible.

Key Biodiversity Areas

Key Biodiversity Areas are defined by IUCN as “sites that contribute significantly to the global persistence of biodiversity”. They are identified through the application of standardised criteria that cover all levels of ecological organisation, including genetic diversity, species and ecosystems.

The identification of KBAs in the Caucasus for ECP 2020 was built on the experience of defining “site outcomes” in cooperation with Conservation International’s Center for Applied Biodiversity Science during the development of the Caucasus Biodiversity Hotspot Profile for investment by the Critical Ecosystem Partnership Fund (CEPF). The informational base also included 56 priority conservation areas and 60 corridors identified during the development of the very first ECP.

Identification of KBAs was based on principles that approximate to the criteria defined in *A Global Standard for the Identification of Key Biodiversity Areas (IUCN, 2016)* for identifying KBAs that contribute to the global persistence of threatened species (criterion A1), individual geographically restricted species (criterion B1) and demographic aggregations of species (criterion D1). Species categorized in the IUCN Red List of Globally Threatened Species (IUCN 2019) as Critically Endangered (CR), Endangered (EN) or Vulnerable (VU) were applied with criterion A1, species with restricted distribution with criterion B1, and species that aggregate in particular areas during a specific life-history stage or process such as breeding, feeding or migration with criterion D1.

The process of KBAs identification involved over 100 experts from the Ecoregion, representing scientific, governmental and non-governmental organizations, working together at national and regional meetings and in distance consultations.

The process of identifying KBAs followed six steps:

- Identification of globally threatened species (trigger species under criterion A1) occurring in the Caucasus Ecoregion.
- For the South Caucasus countries - Armenia, Azerbaijan and Georgia – the second step was to compile basic data and map the distribution of identified globally threatened species. In the case of Iran, Russia and Turkey, the second step was to refine the borders of previously identified CEPF site outcomes taking into consideration changes to the threat categories of species in the IUCN Red List and the distributions of newly listed globally threatened species.
- Overlaying GIS layers of CEPF site outcomes (used as the baseline) and areas of distribution of globally threatened species, and delineating KBAs.
- Assessing delineated KBAs against two more criteria: individual geographically restricted species (trigger species under criterion B1) and demographic aggregations of species (trigger species under criterion D1).
- Assessing whether potential trigger species meet the relevant thresholds in delineated KBAs.
- Refining the delineated boundaries of KBAs by considering other existing important biodiversity areas, such as Protected Areas, Important Bird Areas, Ramsar sites and Emerald sites as well as topographic features.

A total of 362 globally threatened species triggering criterion A1, 14 species triggering criterion B1 and 66 species triggering criterion D1 were considered for the identification of KBAs. Out of the globally threatened species, 121 are listed as Vulnerable, 119 as Endangered and 122 as Critically Endangered; they comprise 276 species of plants, 17 species of mammals, 23 species of birds, 21 species of reptiles, two species of amphibians, 22 species of fish and one species of crustaceans (Table 2).

At the conclusion of the process, 231 KBAs were identified in the Ecoregion (Map 3, Annex 1). The total area of all KBAs is 130,113 km² - about 22.2 % of the Ecoregion’s entire territory.

Table 2. The IUCN Globally Threatened Species of the Caucasus Ecoregion (2019)

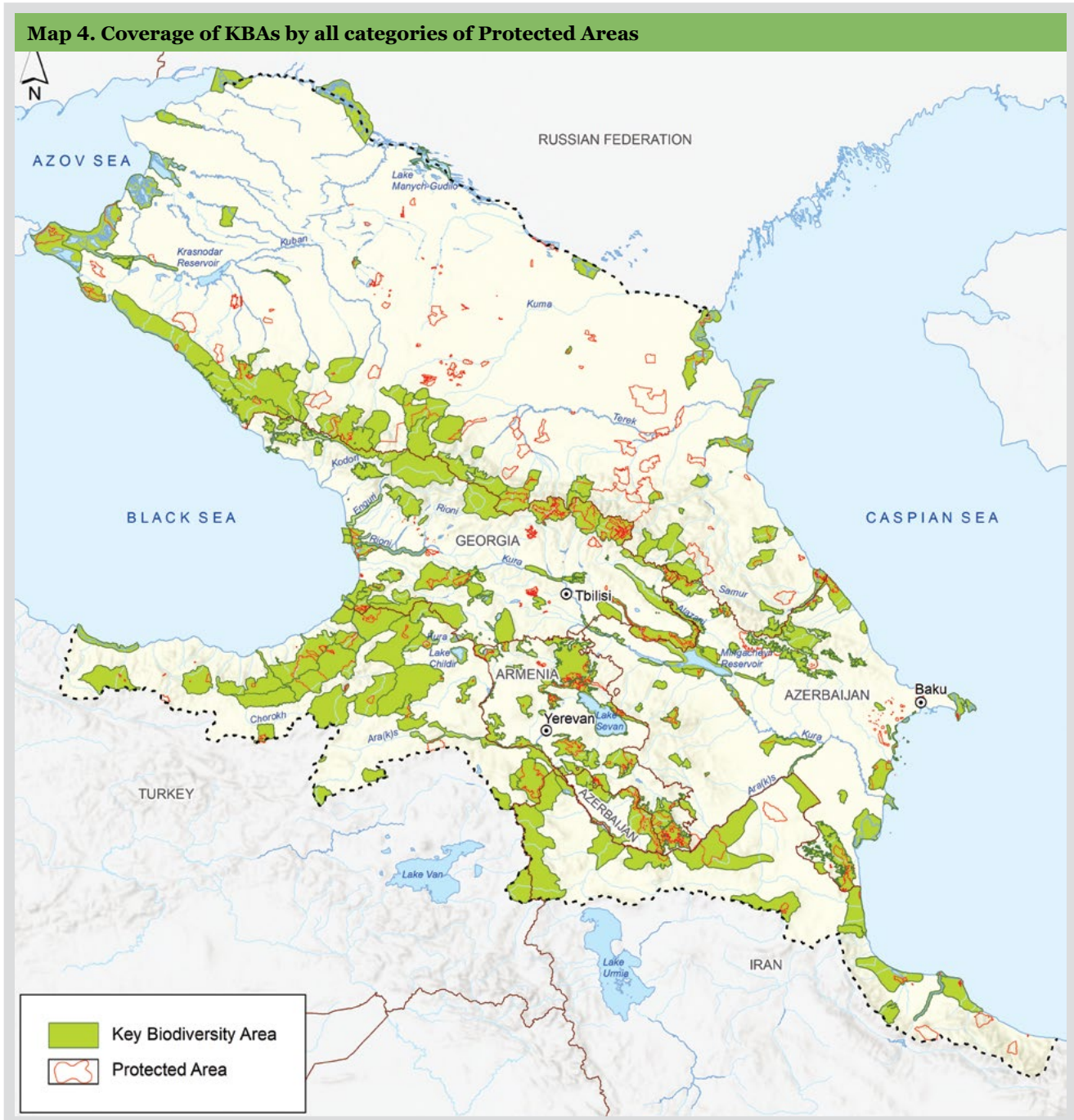
Taxa	Number of Species	IUCN Category			Distribution by Countries					
		Vulnerable	Endangered	Critically Endangered	Armenia	Azerbaijan	Georgia	Iran	Russia	Turkey
Mammals	17	9	5	3	9	8	10	7	12	5
Birds	23	15	5	3	17	21	19	20	23	19
Reptiles	21	8	7	6	6	8	8	4	8	13
Amphibians	2	2	0	0	0	1	1	1	0	1
Fish	22	8	2	12	3	11	12	9	14	10
Crustaceans	1	1	0	0	0	0	1	0	0	0
Plants	276	78	100	98	73	46	63	1	49	90
Total	362	121	119	122	108	95	114	42	106	138

Map 3. Key Biodiversity Areas



Sources: Important Bird Areas database, Birdlife International; Ramsar Sites database, Secretariat of Ramsar Convention; Emerald Sites database, Secretariat of Bern Convention; Protected Areas – see the map of PAs above; KBAs database (2016 update) of Nature Society (Doğa Derneği), Turkey; Outputs of ECP 2020 National and Regional Workshops, and Experts’ Review.

As at 2020, 36.5% of the area covered by KBAs in the Ecoregion is protected through different categories of PAs and 6.2% of the area is under strict protection as it is covered by PAs of IUCN Category I - Strict Nature Reserve (Table 3, Map 4, Annex 2).



The KBAs vary in size from 44 ha to 375,740 ha (there are no fixed size limits for KBAs - size depends on the ecological requirements of the biodiversity elements triggering the criteria and the actual or potential manageability of the area).

More detailed information on the Caucasus KBAs is available in the second part of ECP 2020 (Supplementary Reports).

Table 3. KBA coverage and portion protected by country

Country	Number of KBAs	Area of KBAs (km ²)	KBAs Protected (km ²)	KBAs Protected (%)	KBAs under strict protection (km ²)	KBAs under strict protection (%)
Armenia	22	10,294	3,718	36.1%	351	3.4
Azerbaijan	48	15,846	8,184	51.6%	1,156	7.3
Georgia	60	21,335	6,616	31.0%	1,206	5.7
Iran	15	16,483	4,390	26.6%	0	0
Russia	54	38,861	20,108	51.7%	5,316	13.7
Turkey	32	27,293	4,512	16.5%	15	0.1
Total	231	130,113	47,527	36.5%	8,044	6.2

Box 2. Species Highlights

The pressures on the region's ecosystems threaten the survival of many of the species that occur there. The Caucasus is host to 85 globally threatened species of vertebrate animals and 276 globally threatened species of vascular plants. Seventeen species of the region's mammals are globally threatened. Perhaps the best known is the Caucasian Leopard, celebrated in local folklore. The Leopard used to be widespread throughout the Caucasus, but now it is found only in remote parts of the Greater Caucasus Range, southern Armenia, the Nakhichevan Autonomous Republic (Azerbaijan), the Talysh Mountains and in north-western Iran, which hosts the largest population. Western Tur and Mouflon are also globally threatened: Tur inhabits the high mountains of the Greater Caucasus and Mouflon has dwindled to fewer than several hundred individuals in southern Armenia and in the Nakhichevan Autonomous Republic (Azerbaijan). Dramatic reductions in the numbers of threatened mammal species from the early 1990s inspired species restoration programmes for Leopard, Goitered Gazelle and Bison (these last two also globally threatened) and the regionally threatened Caucasian Red Deer.

Globally threatened birds include the critically endangered Siberian Crane which migrates along the Caspian Sea coast; the vulnerable Great Bustard found in open plains in northern Iran and Turkey during migration, and in the North Caucasus of Russia; the endangered White-headed Duck; and vulnerable Red-breasted Goose which winters in wetlands in Azerbaijan, Russia, northern Iran and Turkey. In all, IUCN lists twenty-three bird species that occur in the Caucasus as Vulnerable, Endangered or Critically Endangered.

The twenty-one globally threatened reptiles found in the region including the Caucasian Viper, Wagner's Viper and Dinnik's Viper. The endemic Caucasian Salamander, one of two globally threatened species of amphibians occurring in the region, is found only in western Georgia and Turkey.

Twenty-two globally threatened fish species are found in the region, including seven species of the family Acipenseridae which occur in the Caspian, Black and Azov Seas; six of those species are globally Critically Endangered.

Following a regional plant assessment in the mid-2010s by Caucasian experts, around 600 species have been submitted to the IUCN Red List authorities for consideration: as of 2020, 276 Caucasian plant species were already listed as globally threatened in the IUCN Red List.

In addition to globally threatened species, the Caucasus is home to a number of regionally threatened and flagship species. Regionally threatened large mammal species include the Striped Hyena, which is on the verge of extinction in the Caucasus, and the Red Deer, one of the region's most endangered species of wildlife. The endemic Eastern Tur – a close relative of the Western Tur – has started to recover but still needs special attention.

Conservation Landscapes

Large scale landscape conservation aims at maintaining the whole spectrum of connectivity, ecological and evolutionary processes, and environmental services taking into account the impacts of climate change. The approach is being applied increasingly around the world. As the Center for Large Landscape Conservation explains, “Large landscape conservation looks beyond national parks, beyond strict lines on maps between civilization and wilderness, to connect and sustain vast areas where wildlife live and move freely, clean water and other ecological benefits are supplied, working lands support sustainable communities, and the places that are special to us and vital to the Earth’s ecology remain healthy for present and future generations. Large landscape conservation transcends boundaries – crossing political jurisdictions, cultures, socio-economic barriers, and disciplines of knowledge – to safeguard intact, healthy landscapes for the lasting benefit of nature and people the world over.”

Early steps in the application of the large conservation landscape approach in the Ecoregion were taken during the planning and implementation of the CEPF Caucasus conservation programme in the 2000s, specifically by the CEPF’s “corridor outcomes”. The experts working on the Caucasus Hotspot delineated ten corridor outcomes with a total area of 20.8 million hectares - 35.5 percent of the Hotspot.

For ECP 2020, two criteria were used to identify Conservation Landscapes:

- (i) High percentage of KBAs coverage;
- (ii) Potential to address habitat fragmentation and consequently, to maintain or restore ecological connectivity at large scale.

The second criterion implies the existence of large areas of undisturbed or less disturbed ecosystems that provide building blocks for restoring connectivity.

ECP 2020 delineates 13 Conservation Landscapes and seven so called Bridging Landscapes (Map 5). Bridging Landscapes are not large enough to perform all the functions of Conservation Landscapes, but they have an important connectivity role as corridors for species with large ranges, supporting genetic flow between populations of different Conservation Landscapes.

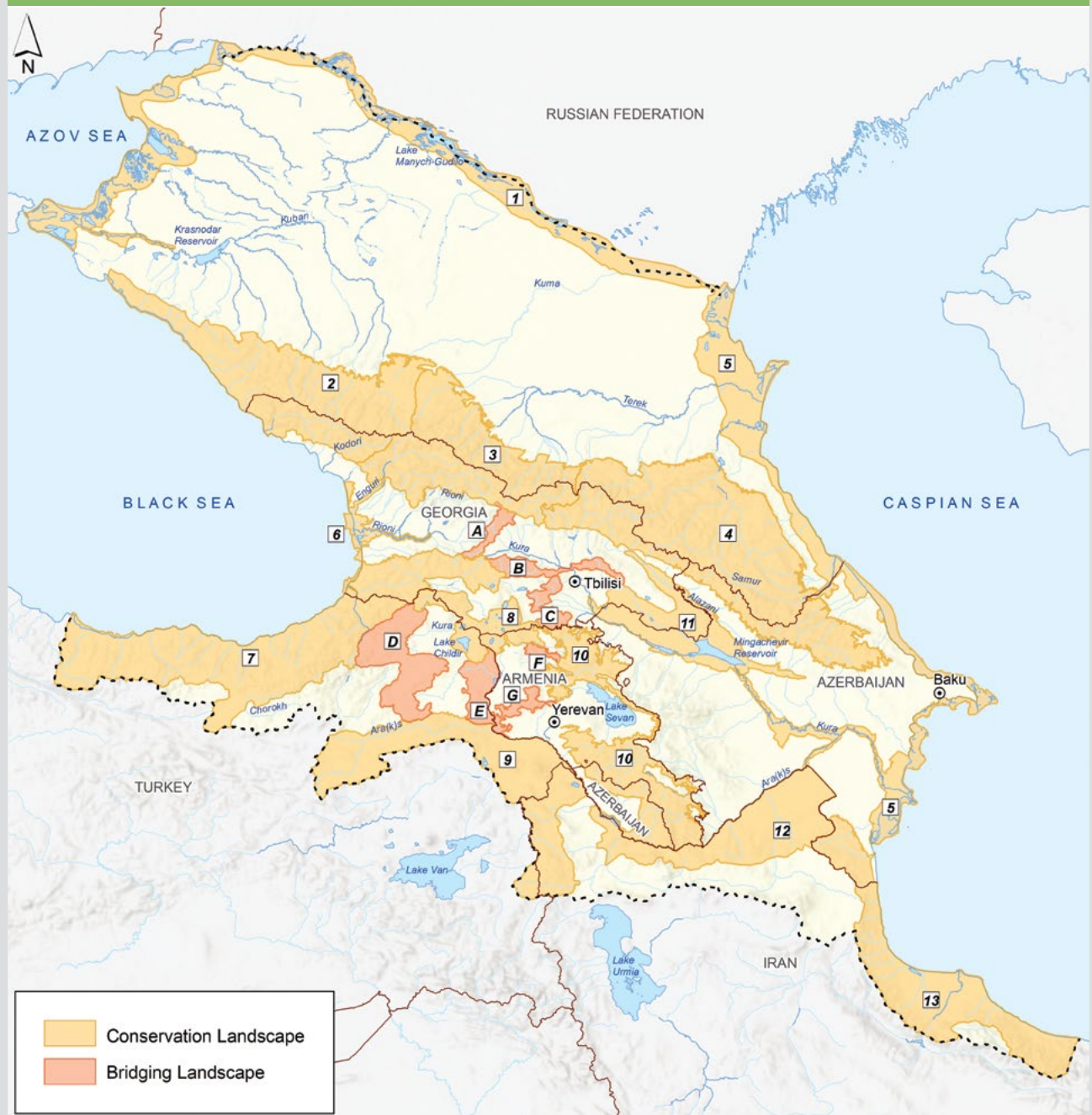
The shapes of four CEPF 2003 corridor outcomes are substantially changed in ECP 2020 - Greater Caucasus, West Lesser Caucasus, East Lesser Caucasus and Caspian:

- Caucasus experts concluded that the Greater Caucasus is too large and diverse to be considered a single landscape for conservation planning and divided it into three smaller segments following the traditional physical-geographic division of the range: Western, Central, and Eastern Greater Caucasus;
- The Kolkheti lowlands and corresponding marine sector have been removed from the CEPF’s West Lesser Caucasus Corridor Outcome and mapped as a separate landscape (Kolkheti Conservation Landscape);
- Armenian experts drew a new shape for the CEPF’s East Lesser Caucasus Corridor Outcome with the effect that in ECP 2020 the equivalent Eastern Lesser Caucasus Conservation Landscape extends from the northern to the southern borders of the country, covering half of the territory of Armenia;
- The CEPF’s Caspian Corridor Outcome was significantly narrowed within the coastal area of Azerbaijan and at the same time it was expanded by a narrow strip along the Kura River (the main reason for this was to create the possibility in the future of restoring the pathways of anadromous fish, especially globally threatened sturgeon species).

Out of ECP 2020’s thirteen Conservation Landscapes, ten are transboundary, covering more than one country, and three are “national” (Table 4): Kolkheti (Georgia), Arasbaran (Iran) and Kuma-Manych (Russia).

Kolkheti directly borders the Western Greater Caucasus and Western Lesser Caucasus. Arasbaran directly borders the Eastern Lesser Caucasus and Hyrcan and almost borders Sarikamish-Maku. Kuma-Manych geographically is comparatively isolated: from a biodiversity viewpoint it is significant mostly for temporal aggregations of migratory birds and for fish.

Map 5. Conservation and Bridging Landscapes



Explanation: Conservation Landscapes: 1 - Kuma-Manych; 2 - Western Greater Caucasus; 3 - Central Greater Caucasus; 4 - Eastern Greater Caucasus; 5 - Caspian; 6 - Kolkheti; 7 - Western Lesser Caucasus; 8 - South Caucasus Uplands; 9 - Sarikamish-Maku; 10 - Eastern Lesser Caucasus; 11 - Iori-Mingachevir; 12 - Arasbaran; 13 - Hyrcan.
Bridging Landscapes: A - Likhi; B - Trialeti-Gombori; C - Algeti-Loqi; D - Sarikamish-Posof; E - Aras; F - Bazum; G - Aragats.
Sources: Corridor Outcomes (CEPF 2003); Maps of KBAs and PAs – see above; Outputs of ECP 2020 National and Regional Workshops, and Experts' Review; Report on Mapping of Anatolian Steppe and Ecosystem Types in Anatolian Steppe (FAO/UN, 2019).

The area of the thirteen Conservation Landscapes is 251,408 km² (terrestrial – 243,492 km² and marine – 7,916 km²), comprising approximately 43% of the Caucasus Ecoregion compared with 35.5% for CEPF landscape outcomes; they are home to almost all of the globally threatened species which occur in the region and are also important for waterfowl aggregations and Caucasus endemics. Conservation Landscapes include 189 of the Ecoregion’s 231 KBAs (more than 81%, by number, which is almost the same percentage as for CEPF 2003). Bridging Landscapes include a further 10 KBAs, taking the total to 199 or over 86%. The remaining 32 KBAs (around 14%) lie outside Conservation and Bridging Landscapes (Map 6).



The majority of the 362 protected areas in the Caucasus lie in ECP 2020's Conservation Landscapes. KBA and PA coverage in the thirteen Conservation Landscapes is presented in Table 4. Overall, around 20% of the area of Conservation Landscapes and 38.8% of the area of KBAs within the Conservation Landscapes are covered by PAs. PA coverage is highest in the three Conservation Landscapes of the Greater Caucasus: in the Western section, 42.2% in total and 66.9% for KBAs; in the Central section, 24.3% and 40.4%; in the Eastern section, 31.5% and 82.3%. The Kolkheti, South Caucasus Uplands, Eastern Lesser Caucasus and Arasbaran Conservation Landscapes have a PA coverage of more than 22% of their total areas and more than 30% of the KBAs inside them. The Western Lesser Caucasus and Hyrcan Conservation Landscapes have only a little more than 10% of PA coverage of their total areas and little more than 20% of the KBAs inside them: this is too low considering the high concentrations of tertiary relict species and endemic species in the region (Map 7).

Table 4. Conservation Landscapes, KBAs and PAs (inside CLs)

#	Conservation Landscape	Countries ^a	Area (km ²)	Number of KBAs	Area of CL covered by KBAs (%)	Number of PAs	Area of CL covered by PA (%)	Area of KBAs covered by PA (%)
1	Kuma-Manych	RU	23,769 ^b	10	42.8	4	4.4	9.6
2	Western Greater Caucasus	GEO, RU	26,070 ^c	18	55.5	28	42.2	66.9
3	Central Greater Caucasus	GEO, RU	21,133	14	56.6	22	24.3	40.4
4	Eastern Greater Caucasus	AZ, GEO, RU	38,445	23	25.9	36	31.5	82.3
5	Caspian	AZ, RU	21,835 ^d	25	34.5	20	16.9	48.5
6	Kolkheti	GEO	1,970 ^e	8	71.4	2	22.7	31.7
7	Western Lesser Caucasus	GEO, TR	33,237 ^f	24	50.3	35	10.2	20.2
8	South Caucasus Uplands	AM, GEO, TR	5,648	15	57.8	10	22.6	39.1
9	Sarikamish-Maku	IR, TR	20,905	12	41.9	4	6.4	13.1
10	Eastern Lesser Caucasus	AM, AZ	15,347	14	62.6	34	23.1	36.2
11	Iori-Mingachevir	AZ, GEO	10,729	16	52.3	17	14.2	27.2
12	Arasbaran	IR	13,643	5	48.8	6	28.2	52.5
13	Hyrcan	AZ, IR	18,677	8	31.9	17	10.9	23.6
	Total		251,362.2	192^g	44.4	252	19.8	38.4

Explanation: (a) Abbreviations: AM – Armenia, AZ – Azerbaijan, GEO – Georgia, IR – Iran, RU – Russia, TR – Turkey; (b) Including both terrestrial (22,424 km²) and marine (1,345 km²) parts; (c) Including both terrestrial (25,847 km²) and marine (223 km²) parts; (d) Including both terrestrial (16,266 km²) and marine (5,570 km²) parts; (e) Including both terrestrial (1,449 km²) and marine (521 km²) parts; (f) Including both terrestrial (32,980 km²) and marine (257 km²) parts; (g) overall, there are 189 KBAs within the Conservation Landscapes: three KBAs - #42 (Gorge of the Eshkakon and Malka Rivers), # 62 (Svaneti 2) and #63 (Range Kodori) fall in both Western and Central Greater Caucasus Conservation Landscapes, which gives a total count of 192 KBAs.

Bridging Landscapes on average are considerably smaller than Conservation Landscapes (Table 5) and contain far fewer KBAs and PAs. The only exception is the Sarikamish-Posof Bridging Landscape in Turkey, which connects Sarikamish-Maku Conservation Landscape with the Western Lesser Caucasus and South Caucasus Uplands Conservation Landscapes. Around 76% of Sarikamish-Posof is covered by 3 KBAs, which are not well protected. In general, Bridging Landscapes are poorly protected: three out of the seven have one or no PAs. KBAs inside Bridging Landscapes are also mostly not covered by PAs. PA coverage exceeds 10% in only one Bridging Landscape (Trialeti-Gombori). In contrast, only two Conservation Landscapes (Kuma-Manych and Sarikamish-Maku) have a PA coverage of less than 10% (Map 7).



Table 5. Bridging Landscapes, KBAs and PAs (inside BLs)

#	Bridging Landscape	Countries	Area (km ²)	Number of KBAs	Area of BL covered by KBAs (%)	Number of PAs	Area of BL covered by PA (%)	Area of KBAs covered by PA (%)
A	Likhi	GEO	1,032	0	0	0	0	0
B	Trialeti-Gombori	GEO	1,972	1	10.7	2	11.2	100
C	Algeti-Loqi	GEO	1,461	1	9.6	2	0.7	0
D	Sarikamish-Posof	TR	6,955	3	76.1	5	3.8	5.0
E	Aras	TR	2,523	2	11.9	3	3.8	32.4
F	Bazum	AM	404	0	0	1	6.6	0
G	Aragats	AM	1,179	3	61.7	1	0.3	0.4
	Total		15,527	10	42.9	14	4.0	8.6

The Conservation and Bridging Landscapes delineated in ECP 2020 represent well the diversity of physical features, ecosystems and species of the region: they cover all main biomes, including forest, freshwater, high-mountain and the dry ecosystems of different types of steppes and semi-deserts. Consequently, these landscapes play a crucial role in providing the Caucasus population with essential ecosystem services, such as food, freshwater, forest products, medicines, regulation of climate, prevention and mitigation of natural hazards, water purification, pollination and recreation.

Most of the lands inside the delineated landscapes are not protected or managed sustainably and fragmentation is widespread. The problems of insufficient protection and poor connectivity can be solved only by establishing new PAs and other effective area-based conservation measures and involving all key stakeholders, including local communities, in the management of the Ecological Network.

More detailed information on the Conservation and Bridging Landscapes, including descriptions, is available in the second part of ECP 2020 (Supplementary Reports).

7. INTRODUCTION TO THE TARGETS AND ACTIONS OF ECP 2020

The ECP's interventions are designed on a landscape level, including transboundary landscapes. Actions are prioritised that will have a regional impact and are intended to be implemented in partnership with the people and communities who live in and depend on the resources of the landscapes of the Ecological Network.

In addition to interventions focused on the Ecological Network, the ECP includes measures to restore nationally or regionally extinct species and improve the conservation status of globally and regionally threatened species. Measures to halt and reverse the degradation of the forest and freshwater biomes are also included. These two biomes were selected for special attention because of their importance in global carbon and water cycles and the scale of the threats which they face.

The region's forest biome has been substantially reduced in size by centuries of clearance for agriculture, industry and settlement. Large parts of the remaining area, which covers up to 20% of the region (the average for Europe is 33%), are degraded and fragmented as a result of continued unsustainable logging and grazing, much of it illegal; climate change caused by human-induced global heating is adding to those pressures. In spite of all that, forests remain the richest of the region's biomes in terms of biodiversity, and the most valuable in terms of the ecosystem services they provide.

The ECP includes two groups of measures to halt and reverse the decline of the region's forests. The first group aims at bringing about sustainable forest management by eliminating illegal logging and implementing management policies and practices that take account of the impacts of climate change and the goals of biodiversity conservation. The second group aims to restore and enhance the connectivity of forest ecosystems within Conservation and Bridging Landscapes taking into account the impacts of climate change.

Whereas forests have been under pressure from human development for millennia, increasing threats to the region's freshwater ecosystems are relatively recent. The ECP includes two groups of measures to address the threats to freshwater. The first group aims at achieving the sustainable management of the region's freshwater ecosystems by engaging actors in the development and application of improved planning procedures and operating guidelines. The second group of measures focuses on restoring and enhancing ecological connectivity of freshwater ecosystems taking into consideration the need of biodiversity conservation and resilience against climate change.

The Ecoregional Conservation Plan sets targets for 2035, actions to be taken by 2025, a reference to the countries, Conservation Landscapes and Bridging Landscapes where the actions apply, and action-based indicators for monitoring progress. Targets and actions of the ECP are arranged in four priority thematic directions - the Ecological Network, Wildlife, Forest and Freshwater:

- **Table A** - Targets and associated actions for the development of the Ecological Network.
- **Table B** - Targets and associated actions for conservation of threatened animal species.
- **Table C** - Targets and associated actions for sustainable management, restoring and maintaining the ecological connectivity of forest ecosystems.
- **Table D** - Targets and associated actions for sustainable management, restoring and maintaining the ecological connectivity of freshwater ecosystems.

8. IMPLEMENTATION

Since its first edition the ECP has involved many different types of actors. This will continue to be the case. The governments of the Caucasus countries will need to provide the necessary enabling environment, facilitate the establishment of new PAs, create suitable policy instruments to support creation of the Ecological Network and sustainable land management in Conservation and Bridging landscapes. The expertise of academic and research institutions and national, regional and international non-governmental organisations will be needed to design and implement actions to achieve the ECP's targets. The commitment, expertise and involvement of the people and communities who live in and depend on the resources of the landscapes of the Ecological Network will be crucial for the effectiveness of the process and sustainability of the results. And critically, the ECP's targets will be achieved only if the governments of the Caucasus countries and donor organisations continue to provide funding.

Implementation of ECP 2020 does not start with a bare canvas. A lot of progress has already been made towards establishing the Ecological Network as a result of the new PAs that have been created and improved PA management effectiveness. Pioneering work on corridor management through contracts with local communities has been initiated through the Eco-Corridor Fund and the first results are promising: around 20,000 ha are contracted in the Western Lesser Caucasus Conservation Landscape in Georgia, around 36,000 ha - in the Eastern Lesser Caucasus Conservation Landscape in Armenia, and around 35,000 ha - in the Eastern Greater Caucasus Conservation Landscape in Azerbaijan. Through this early work, an effective approach to the creation of corridors has been established. Successful species restoration projects have also been undertaken and a lot of experience gained as a result.

All of this past work provides a solid foundation for the future. The nearest tasks are to complete the work on corridor establishment in the Western and Eastern Lesser Caucasus and Eastern Greater Caucasus Conservation Landscapes and initiate corridor establishment areas where transboundary conservation activities are already taking place, for example in the Iori-Mingachevir, South Caucasus Uplands and certain other Conservation Landscapes. In parallel, additional PAs need to be established in unprotected KBAs and to provide basic landscape anchors: in particular, there are large gaps in the Russian part of the Eastern Greater Caucasus, in the Georgian part of the Central Greater Caucasus, in the Georgian part of the Western Lesser Caucasus between Borjomi-Kharagauli NP and Kintrishi SNR, in Hyrcan between Azerbaijan and the closest PA in Iran, and in some other landscapes of the Ecoregion.

A sustainable mechanism for promoting the ECP and supporting efforts to obtain funding, and monitor and report on its progress is lacking. Previous attempts have failed due to lack of long-term funding. The organisations that have coordinated the development of the ECP will continue to look for ways of financing a small team to take on these tasks.



THE ECOREGIONAL CONSERVATION PLAN TARGETS AND ACTIONS

A. DEVELOPMENT OF THE ECOLOGICAL NETWORK

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
A1. All basic documents, agreements and mechanisms supporting development of the Caucasus Ecological Network are in place.	A1.1. Develop a plan of the Ecological Network for terrestrial conservation landscapes.	All countries	All terrestrial	Plan of the Ecological Network elaborated and made available to the region's biodiversity conservation actors (six countries = 100%).
	A1.2. Elaborate an Ecological Network covering important marine areas for the Black, Azov and Caspian Seas.	Azerbaijan, Georgia, Iran, Russia, Turkey	All marine	Marine Ecological Network elaborated and made available to the region's biodiversity conservation actors (five countries = 100%).
	A1.3. Make agreements between the Ecoregion's countries to facilitate bilateral and multilateral transboundary cooperation as required and feasible.	All countries	Eastern Greater Caucasus, Iori-Mingachevir, Western and Eastern Lesser Caucasus, and Hyrcan CLs	Number of transboundary agreements signed and/or programmes developed (five agreements = 100%).
	A1.4. Further develop the CNF to increase PA management effectiveness in the CNF's partner countries, focusing on PAs protecting KBAs within CLs.	Armenia, Azerbaijan, Georgia	KBAs in the Eastern Greater, Western and Eastern Lesser Caucasus CLs and selected KBAs in other CLs	METT Score of PAs supported by CNF increased by at least 10 points (or 10%) compared with the baseline in 2019.
A2. Additional ca.600,000 ha are legally protected in the countries of the Ecoregion.	A2.1. Establish Tatev NP.	Armenia	Eastern Lesser Caucasus CL	Law on establishing Tatev NP adopted and ca. 9,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.2. Consolidate and expand area of Ijevan MNR.	Armenia	Eastern Lesser Caucasus CL	Law on consolidation and expansion of Ijevan MNR adopted and ca. 10,000 ha new area protected and well managed (METT score five years after consolidation and expansion no less than 75%).
	A2.3. Establish Jermuk NP.	Armenia	Eastern Lesser Caucasus CL	Law on establishing Jermuk NP adopted and ca. 30,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.4. Establish Lori Lakes PA.	Armenia	Eastern Lesser Caucasus CL	Law on establishing Lori Lakes PA adopted and ca. 10,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
	A2.5. Consolidate and expand PAs around Mingachevir Reservoir (Akhar-Bakhar section of Illisu SNR, Gakh MNR, Korchay SNR and Korchay MNR).	Azerbaijan	Iori-Mingachevir CL	Law on consolidation and expansion of PAs around Mingachevir Reservoir adopted and ca. 5,000 ha new area protected and well managed (METT score five years after consolidation and expansion no less than 75%).
	A2.6. Establish PAs in the Kura River Delta and on islands in the Baku and Absheron archipelagos.	Azerbaijan	Caspian CL	Law on establishing PAs in the Kura River Delta and on islands in the Baku estuary and Absheron archipelagos adopted and ca. 2,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.7. Establish Racha NP.	Georgia	Central Greater Caucasus CL	Law on establishing Racha NP adopted and ca. 50,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.8. Establish Erusheti NP.	Georgia	South Caucasus Uplands CL	Law on establishing Erusheti NP adopted and ca. 11,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.9. Establish Samegrelo NP.	Georgia	Central Greater Caucasus CL	Law on establishing Samegrelo NP adopted and ca. 30,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.10. Establish Svaneti NP.	Georgia	Central Greater Caucasus CL	Law on establishing Svaneti NP adopted and ca. 40,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.11. Consolidate and expand area of Algeti NP.	Georgia	Western Lesser Caucasus CL	Law on consolidation and expansion of Algeti NP adopted and ca. 10,000 ha new area protected and well managed (METT score five years after consolidation and expansion no less than 75%).
	A2.12. Expand area of Javakheti PAs by adding the Paravani, Saghamo, Avchala Lakes.	Georgia	South Caucasus Uplands CL	Law on expansion of Javakheti PA adopted and ca. 5,000 ha new area protected and well managed (METT score five years after expansion no less than 75%).
	A2.13. Establish the Rioni River MNR for conservation of the last spawning grounds of sturgeon in the Eastern Black Sea.	Georgia	Kolkheti CL	Law on establishing the Rioni River MNR adopted and ca. 1,400 ha new area protected and well managed (METT score three years after establishment no less than 75%).

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
	A2.14. Establish Guria National Park.	Georgia	Western Lesser Caucasus CL	Law on establishing Guria National Park adopted and ca. 30,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.15. Establish IUCN Category VI PA on Samukhi Steppe – the main area for globally threatened Goitered Gazelle restoration in Georgia.	Georgia	Iori-Mingachevir CL	Law on establishing Samukhi Steppe Protected Area adopted and ca. 18,000 ha new area protected and well managed (METT score three years after establishment no less than 75%).
	A2.16. Establish Ateni PA.	Georgia	Trialeti-Gombori BL	Law on establishing Ateni PA adopted and ca. 25,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.17. Establish Mtskheta MNR to conserve relict Juniper and Pistachio species.	Georgia	Trialeti-Gombori BL	Law on establishing Mtskheta MNR adopted and ca. 5,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.18. Establish a PA between Dizmar and Kantal.	Iran	Arasbaran CL	Law on establishing the new PA adopted and ca. 21,000 ha new area protected and well managed (METT score five years after establishment no less than 75%).
	A2.19. Expand area of Tlyaratinski FMNR.	Russia	Eastern Greater Caucasus CL	Law on expansion of Tlyaratinski FMNR adopted and ca. 240,000 ha new area protected and well managed (METT score five years after expansion no less than 75%).
	A2.20. Expand territory of the Dagestanski SNR by adding identified marine section and Tuleny island.	Russia	Caspian CL	Law on expansion of Dagestanski SNR adopted and ca. 15,000 ha new area protected and well managed (METT score in five years after expansion the SNR no less than 75%).
A3. Connectivity is established for at least five CLs in close cooperation with local communities through wide application of CCA concept.	A3.1. Complete the creation of the pilot corridors within the Eastern Lesser Caucasus, Eastern Greater Caucasus and Western Lesser Caucasus Conservation Landscapes.	Armenia, Azerbaijan, Georgia	Eastern and Western Lesser Caucasus and Eastern Greater Caucasus CLs	At least one third of the area inside the Ecological Corridors is covered by CCAs/Conservation Agreements.
	A3.2. Establish an Ecological Corridor within the Eastern Lesser Caucasus CL in Nakhchivan/Azerbaijan.	Azerbaijan	Eastern Lesser Caucasus CL	At least one third of the area inside the Ecological Corridor is covered by CCAs/Conservation Agreements.
	A3.3. Establish an Ecological Corridor within the Iori-Mingachevir CL.	Azerbaijan-Georgia	Iori-Mingachevir CL	At least one third of the area inside the Ecological Corridor is covered by CCAs/Conservation Agreements.

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
	A3.4. Explore the feasibility of creating an Ecological Corridor within the LikhiBL located between the Central Greater Caucasus and Western Lesser Caucasus CLs.	Georgia	Likhi BL	Feasibility study report prepared and made available to relevant actors.
	A3.5. Explore the feasibility of creating an Ecological Corridor between the Eastern Greater Caucasus (mountain part of Ilisu SNR) and Iori-Mingachevir (Iori-Ajinour plateau, Akhar-Bakhar part of Ilisu SNR).	Azerbaijan	Eastern Greater Caucasus and Iori-Mingachevir CLs	Feasibility study report prepared and made available to relevant actors.
	A3.6. Maintain and further develop caretaker (community rangers) networks in three pilot Ecological Corridors within Conservation Landscapes.	Armenia, Azerbaijan, Georgia,	Western and Eastern Lesser Caucasus and Eastern Greater Caucasus CLs	Number of caretakers and caretaker networks.
A4. Transboundary cooperation is on-going in all focal transboundary areas.	A4.1. Continue transboundary cooperation between bordering PAs of Armenia and Georgia with a focus on the implementation of a joint bird monitoring programme.	Armenia, Georgia	South Caucasus Uplands CL	Joint monitoring reports prepared annually and made available to relevant actors.
	A4.2. Establish transboundary cooperation for conservation and sustainable management of Aktas (Kartsakhi) Lake Ecosystem.	Georgia, Turkey	South Caucasus Uplands CL	Transboundary cooperation framework, including a joint programme, agreed among key stakeholders and is being implemented.
	A4.3. Further develop transboundary cooperation between Lagodekhi, Zagatala and Tlyarata PAs with a focus on monitoring East Caucasian Tur and Caucasian Red Deer.	Azerbaijan, Georgia, Russia	Eastern Greater Caucasus CL	Transboundary cooperation agreement, including at least a joint Red Deer monitoring programme, agreed among key stakeholders and is being implemented.
	A4.4. Establish transboundary cooperation between Georgia and Turkey for the Southern Colchic region.	Turkey, Georgia	Western Lesser Caucasus CL	Transboundary cooperation framework, including a joint programme, agreed among key stakeholders and is being implemented.
	A4.5. Further develop the Iran-Armenia transboundary initiative in the framework of the process of establishing the Peace and Friendship Park.	Armenia, Iran	Eastern Lesser Caucasus and Arasbaran CLs	At least 3 transboundary field activities have been or are being implemented.
	A4.6. Explore the feasibility of transboundary cooperation between bordering PAs of Iran and Azerbaijan (Nakhchivan).	Azerbaijan, Iran	Eastern Lesser Caucasus CL and Arasbaran CLs	Feasibility study report prepared and made available to relevant actors.

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
	A4.7. Explore the feasibility of transboundary cooperation between bordering PAs of Azerbaijan and Russia in Samur River delta and between Shahdag National Park and the mountain section of Samursky National Park.	Azerbaijan, Russia	Eastern Greater Caucasus and Caspian CLs	Feasibility study report prepared and made available to relevant actors.
A5. Achieve international recognition of PAs in the Ecoregion.	A5.1. Provide the support necessary to prepare nominations for the inscription of natural sites of universal value on the UNESCO World Heritage List.	Selected countries	Selected CLs	At least two more Caucasus properties are inscribed.
	A5.2. Establish UNESCO Biosphere Reserves in the Ecoregion.	Armenia, Iran, Georgia	Eastern Lesser Caucasus, Arasbaran, Eastern Greater Caucasus and Iori-Mingachevir CLs	At least two Biosphere Reserves legally established and recognition by UNESCO initiated.
	A5.3. Provide the support necessary for more Caucasus PAs (with focus on transboundary ones) to achieve compliance with the criteria of the European Diploma for Protected Areas.	Selected countries	Selected CLs	At least 5 PAs have received the Diploma.
	A5.4. Provide the support necessary for Caucasus PAs (with a focus on transboundary ones) to achieve compliance with the criteria of the IUCN Green List.	Selected countries	Selected CLs	At least 5 PAs are included in the IUCN Green List.
	A5.5. Finalise mapping and achieve legal national recognition of the Bern Convention's Emerald sites in the South Caucasus countries.	Armenia, Azerbaijan, Georgia	All CLs within the three countries	At least two countries have finalised mapping and legal recognition of Emerald Sites.
	A5.6. Provide the support necessary to prepare nominations for new sites in each of the Caucasus countries for approval by the Ramsar Convention as Wetlands of International Importance.	All countries	Selected CLs and/or KBAs	At least 2 new Ramsar Sites designated in each country.
	A5.7. Provide the support necessary for transboundary groupings of Caucasus PAs to achieve certification as EUROPARC Transboundary Areas.	Selected countries	Selected CLs and/or KBAs	At least one transboundary grouping certified as a EUROPARC Transboundary Area.

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
	A5.8. Provide the support necessary for Caucasus PAs (with a focus on transboundary ones) to achieve the European Charter for Sustainable Tourism in Protected Areas managed by the EUROPARC Federation.	Selected countries	Selected CLs	At least three South Caucasus PAs have been awarded the Charter.
	A5.9. Explore the feasibility of achieving UNESCO Global GEOPARK status for appropriate Caucasus PAs.	Selected Countries	Selected CLs and/or KBAs	Feasibility study report prepared and made available to relevant actors.
A6. A regional system to support monitoring of effectiveness of conservation responses at the level of landscapes is established.	A6.1. Further develop the Caucasus Biodiversity Monitoring Network including its information database and the mechanism for updating and processing data.	Armenia, Azerbaijan, Georgia	All CLs in the three countries	(a) Efficient mechanism for data gathering and processing in place; (b) Annual reports on functioning of CBMN prepared and made available to stakeholders; (c) The database allows major trends in biodiversity and ecosystem/PA management to be tracked.
	A6.2. Develop a long-term landscape monitoring programme, including indicators at species and landscape levels, and initiate implementation for pilot CLs.	Armenia, Azerbaijan, Georgia	Selected pilot CLs within the three countries	Programme developed and agreed among key stakeholders and implemented for at least three pilot CLs.
	A6.3. Support application of modern scientific methodologies in research and monitoring of biodiversity and ecosystems with a focus on transboundary areas and pilot corridors.	All countries	Selected CLs and transboundary areas	At least ten landscape target species and at least three Ecosystems with increasing threats are being monitored using modern scientific methodologies.

B. CONSERVATION OF THREATENED ANIMAL SPECIES

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
B1. All basic documents and necessary agreements between countries are in place to facilitate bilateral or multilateral initiatives on wildlife conservation and management focusing on KBAs and CLs.	B1.1. Make agreements between relevant organizations of Caucasus countries on cross- and transboundary programmes for management of globally and regionally threatened species.	Selected countries	Selected CLs	At least three agreements signed.
	B1.2. Revise and update National Action Plans for Leopard Conservation in line with the Strategy for the Conservation of the Leopard in the Caucasus Ecoregion (Revised Version 2017; supported by Standing Committee of Bern Convention, Dec 2017) and start their implementation.	Armenia, Azerbaijan, Georgia, other countries	Western, Central and Eastern Greater Caucasus, Iori-Mingachevir, Eastern Lesser Caucasus and Hyrcan CLs	National Action Plans officially approved for Armenia and Azerbaijan and implementation started.
	B1.3. Revise the Strategy for the Conservation of the Leopard in the Caucasus Ecoregion and start implementation.	Armenia, Azerbaijan, Georgia, Iran, Russia, Turkey	Western, Central and Eastern Greater Caucasus, Iori-Mingachevir, Eastern Lesser Caucasus and Hyrcan CLs	Revised strategy prepared, available and implementation started.
	B1.4. Develop regional strategies and action plans for recovering Sturgeon populations of the Caspian, Black and Azov Seas and start their implementation.	Azerbaijan, Georgia, Russia, Iran	Caspian, Kolkheti and Kuma-Manych CLs	Regional strategies and action plans agreed among key stakeholders and implementation started.
	B1.5. Develop a regional conservation strategy and action plan for Caucasian Red Deer and start its implementation.	Selected countries	Selected CLs	Regional conservation strategy and action plan agreed among key stakeholders and implementation started.
	B1.6. Develop a long-term regional programme for further restoration of Bison populations in the Caucasus with support of IUCN's Bison Specialist Group.	Azerbaijan, Georgia, Russia	Selected CLs	Programme developed and being implemented with the involvement of all three countries.
	B1.7. Develop regional conservation strategies, programmes and action plans for other globally and/or regionally threatened species or species groups as required and as feasible.	Selected countries	Selected CLs	Regional strategies and action plans for the selected species agreed among key stakeholders and implementation started.
	B1.8. Organize a Caucasus Wildlife Conservation Conference and repeat it every 4-5 years to coordinate the activities of conservation actors from different countries of the Ecoregion and to track progress.	All countries	All CLs, BLs, KBAs	Proceedings of the conferences.

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
B2. Selected nationally or regionally extinct species have been restored to their previously inhabited ranges.	B2.1. Continue Caucasian Red Deer reintroduction programme in Armenia using the capacity of Dilijan breeding centre.	Armenia	Eastern Lesser Caucasus CL	Number of animals in Dilijan breeding centre increased at least 2 times (to a total of 24 animals).
	B2.2. Enhance Arasbaran Red Deer breeding centre	Iran	Arasbaran CL	At least 10 animals translocated from the centre.
	B2.3. Create reproductive Red Deer herds in new breeding centres in other countries.	Other selected country(ies)	Selected CLs	At least one more Red Deer captive breeding centre established.
	B2.4. Continue Goitered Gazelle reintroduction in its historical range in Azerbaijan and Georgia and enhance protection and monitoring parts of the programme through capacity building and improving infrastructure in target areas.	Azerbaijan, Georgia	Iori-Mingachevir and Caspian CLs	Population of reintroduced Gazelle groups increased.
	B2.5. Further develop the Ismailly Bison reintroduction centre and establish a founder group.	Azerbaijan	Eastern Greater Caucasus CL	Founder group of fifty Bison individuals established.
	B2.6. Continue Bison reintroduction in the Republic of North Ossetia-Alania.	Russia	Central Greater Caucasus CL, selected other CLs	Population of Bison in the targeted CLs increased.
	B2.7. Establish a Bison breeding centre, created from European clean line sources, in the Northern Caucasus.	Russia	Central Greater Caucasus CL, selected other CLs	(a) Breeding centre established, properly equipped and with full complement of trained staff; (b) Four breeding groups of Bison established.
	B2.8. Explore the feasibility of reintroducing Bison in Georgia.	Georgia	Central Greater Caucasus CL	Feasibility report prepared and made available to key actors.
	B2.9. Expand the Leopard reintroduction programme of Sochi Breeding Centre into natural habitats sparsely populated by Leopard in the Caucasus.	Russia, Armenia, Azerbaijan	Selected CLs	At least 20 Leopard individuals released in the Caucasus.
	B2.10. Explore the feasibility of restarting the reintroduction of Bezoar Goat and restoration of Western Tur in Georgia.	Georgia, other involved countries	Western Lesser Caucasus and Central Greater Caucasus CLs	Feasibility report prepared and made available to key actors.

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
B3. Regional and transboundary survey and monitoring activities are ongoing to conserve globally and regionally threatened species.	B3.1. Continue WWF's long-term programme on conservation and monitoring of Leopard in the Caucasus and extend it to the Iranian and Turkish parts of the Ecoregion.	All countries	Eastern Greater Caucasus, Iori-Mingachevir, Eastern Lesser Caucasus and Hyrcan CLs	(a) Monitoring reports are prepared and made available to relevant stakeholders; (b) Increase in the Leopard population in the Ecoregion and particularly in the Southern Caucasus.
	B3.2. Conduct regional field surveys and desk research to monitor the actual status of populations of globally and regionally threatened species, publish results to promote development of species conservation action plans.	All countries	Selected CLs and KBAs	Survey and monitoring reports prepared and made available to relevant stakeholders.
	B3.3. Carry out a study of the populations of wolf and other large predators and of their prey species in large herbivores reintroduction sites in the South Caucasus (Dilijan, Azerbaijan-Georgia transboundary area, Ismailly) to inform the implementation of reintroduction programmes.	Armenia, Azerbaijan, Georgia	Iori-Mingachevir, Eastern Lesser Caucasus and Eastern Greater Caucasus CLs	Study report prepared and made available to relevant actors.

C. SUSTAINABLE MANAGEMENT, RESTORATION AND MAINTENANCE OF THE ECOLOGICAL CONNECTIVITY OF FOREST ECOSYSTEMS

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
C1. Illegal logging is eliminated, forests are managed sustainably, management policies and practices take into consideration the potential impact of climate change and goals of biodiversity conservation.	C1.1. Conduct an assessment of the actual scale of illegal and unsustainable logging and their medium-term impact in at least the three South Caucasus countries.	Armenia, Azerbaijan, Georgia, other countries	All CLs within the three South Caucasus countries, selected CLs in other countries	Assessment report prepared and made available to stakeholders.
	C1.2. Conduct an assessment of the ecological status of forests at least for the three South Caucasus countries (including such parameters as intactness, HCV, scale of degradation, productivity) using satellite imagery and national inventory documents (where they exist and if they are reliable).	Armenia, Azerbaijan, Georgia, other countries	All CLs within the three South Caucasus countries, selected CLs in other countries	Assessment report prepared and made available to stakeholders.
	C1.3. Develop national forest adaptation strategies to mitigate the impacts of climate change at least for the three South Caucasus countries, based on Strategic Guidelines for Responding to Impacts of Global Climate Change on Forests in the Southern Caucasus (WWF, KfW/BMZ, 2011).	Armenia, Azerbaijan, Georgia, other countries	All CLs within the three South Caucasus countries, selected CLs in other countries	National forest adaptation strategies prepared and being implemented.
	C1.4. Assess the feasibility of establishing voluntary forest certification in the Ecoregion, and if it is shown to be feasible, prepare a project and start to implement it.	All countries	All CLs, BLs, KBAs	(a) Feasibility study report prepared and made available to relevant actors; (b) Subject to findings of the feasibility study report, a project to establish voluntary forest certification in the region is being implemented.
	C1.5. Pilot new models of sustainable forest governance and management and replicate successful models throughout the Ecoregion.	Armenia, Georgia, other countries	Western and Eastern Lesser Caucasus, selected CLs in other countries	New models of sustainable forest governance and management have been piloted in at least two CLs.

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
C2. Connectivity of forest ecosystems is restored and enhanced within CLs and BLs through application of the FLR approach and taking into account the potential impact of climate change.	C2.1. Incorporate the FLR approach and methodology in forest policies and practices at least in the three South Caucasus countries based on experience gained from pilot FLR projects previously implemented in the Ecoregion.	Armenia, Azerbaijan, Georgia, other countries	All CLs and BLs of the three South Caucasus countries, selected CLs in other countries	FLR approach incorporated into national policies and practices in at least three countries.
	C2.2. Conduct a study of forest fragmentation patterns in CLs of at least three countries to provide a better understanding of the consequences of fragmentation for landscape-level connectivity in the forests of the Ecoregion.	Armenia, Azerbaijan, Georgia, other countries	All CLs of the three South Caucasus countries, selected CLs in other countries	Study report prepared and made available to relevant stakeholders.
	C2.3. Based on the results of the forest fragmentation study (action C2.2), develop forest restoration plans which consider climate change impacts and the principles of the FLR approach; start implementation of the plans in at least three countries.	Armenia, Azerbaijan, Georgia, other countries	All CLs of the three South Caucasus countries, selected CLs in other countries	At least three countries have officially adopted restoration plans and are implementing them (three countries = 100%).
	C2.4. Develop and start to implement a programme of transforming vulnerable forest plantations inside CLs into forest stands that are resilient to climate change using the experience gained from the previously implemented pilot project.	Armenia, Azerbaijan, Georgia, other countries	Relevant CLs of the three South Caucasus countries, selected CLs in other countries	At least 5,000 ha area of vulnerable forest plantations under transformation.
	C2.5. Develop and start to implement a programme to restore degraded and fragmented flood plain forests in the transboundary area between Azerbaijan and Georgia to re-establish and enhance connectivity.	Azerbaijan, Georgia	Iori-Mingachevir CL	At least 2,000 ha of forests under restoration.

D. SUSTAINABLE MANAGEMENT, RESTORATION AND MAINTENANCE OF THE ECOLOGICAL CONNECTIVITY OF FRESHWATER ECOSYSTEMS

Targets by 2035	Actions by 2025	Country(ies)	CLs and BLs	Indicator(s)
D1. Freshwater Ecosystems are managed sustainably, management policies and practices take into consideration existing and potential risks to freshwater ecosystems.	D1.1. Identify and map free flowing rivers and HCV freshwater ecosystems for further consideration in sustainable planning, policy-decisions and management practices.	Armenia, Azerbaijan, Georgia, other countries	All CLs of the three South Caucasus countries, selected CLs in other countries	Report on free-flowing rivers and HCV freshwater ecosystems prepared, submitted to responsible governmental organizations, and made available to other key stakeholders.
	D1.2. Develop regional guidelines for the sustainable development of water infrastructure, applying the concepts of connectivity and environmental flow and considering biodiversity conservation, water security and equitable access, for further application in sustainable planning, policy-decisions and management practices.	Armenia, Azerbaijan, Georgia, other countries	All CLs within the three South Caucasus countries, selected CLs in other countries	Regional guidelines developed and made available to responsible governmental organizations and other key stakeholders including private sector actors.
	D1.3. Identify and map infrastructure and industrial processes that are having a negative impact on freshwater ecosystems, start discussions with the operators to facilitate mitigation of the impacts of their operations on freshwater.	Armenia, Azerbaijan, Georgia, other countries	Selected CLs of the three South Caucasus countries, selected CLs in other countries	At least three companies in the Caucasus have prepared and are implementing plans to mitigate the impact of their operations on freshwater.
	D1.4. Make a valuation of selected freshwater ecosystems to demonstrate their vital contribution to ecological stability and human well-being, and to support informed decision-making in the region.	Armenia, Azerbaijan, Georgia, other countries	Selected CLs of the three South Caucasus countries, selected CLs in other countries	At least three valuation reports prepared and communicated to the relevant governmental organizations and other key stakeholders.
D2. Connectivity of freshwater ecosystems is restored and enhanced taking into consideration the need of biodiversity conservation and resilience against climate change.	D2.1. Identify and map major barriers in freshwater ecosystems for further application of sustainable adaptive management and improving connectivity.	Armenia, Azerbaijan, Georgia, other countries	All CLs of the three South Caucasus countries, selected CLs in other countries	Report prepared and communicated to responsible governmental organizations and other key stakeholders including private sector actors.
	D2.2. Develop and start to implement a programme to restore degraded freshwater habitats to enhance connectivity and sustain the functionality of freshwater ecosystems for biodiversity and the benefit for people.	Armenia, Azerbaijan, Georgia, other countries	All CLs of the three South Caucasus countries, selected CLs in other countries	At least three key freshwater habitats under restoration.

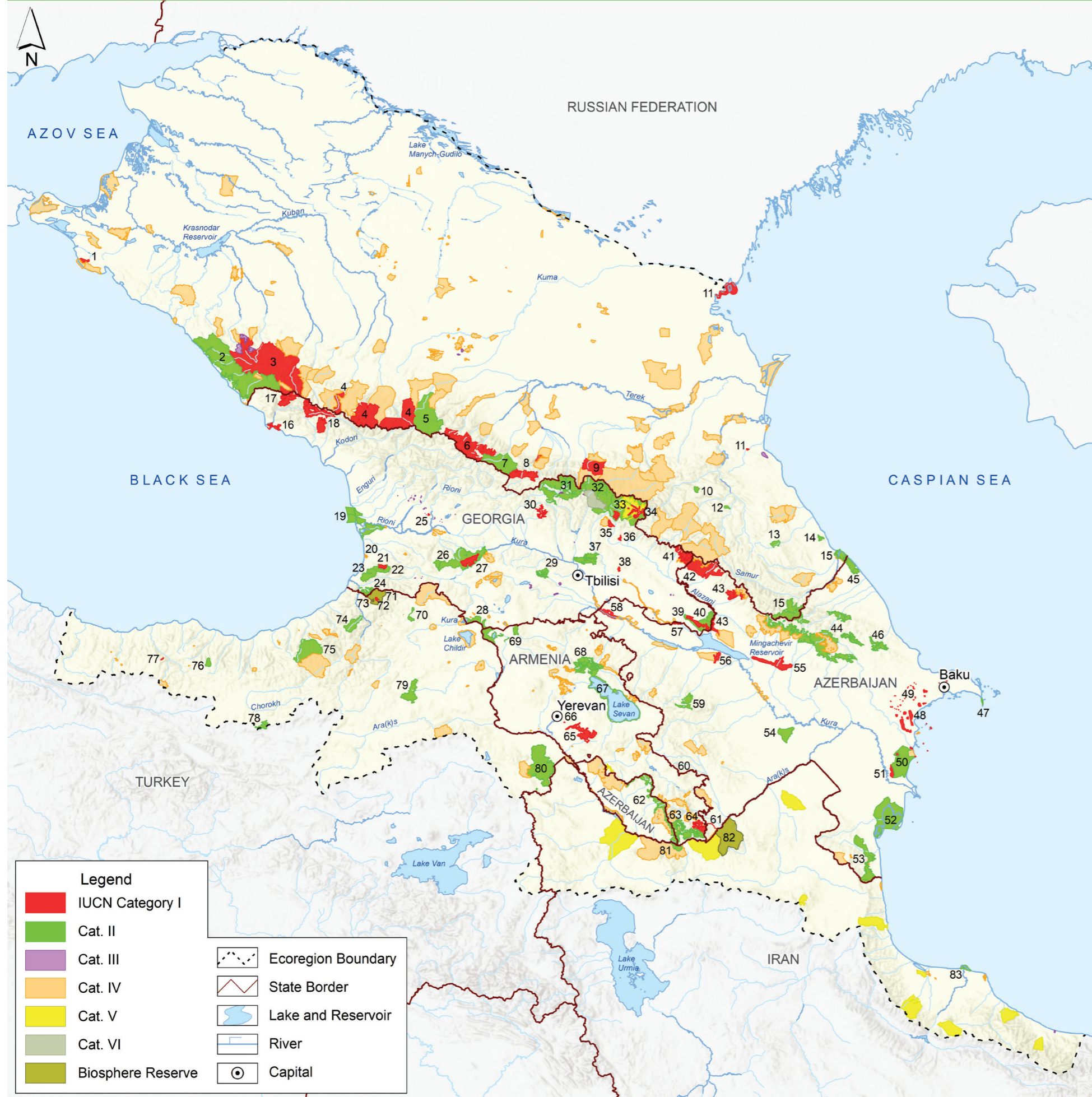
Annex 1: Map of Key Biodiversity Areas



Key Biodiversity Areas:

- | | | |
|---|---|------------------------------------|
| Russia | 76. Batumi 1 | 153. Kura Delta |
| 1. Abrauskiy Peninsula | 77. Chorokhi-Sarpi | 154. Gizilaghach |
| 2. Tamanskiy | 78. Batumi 2 | 155. Hyrkan Forests |
| 3. Delta Kuban | 79. Machakhela | 156. Zuvand |
| 4. Krimsky | 80. Shavsheti Range (2) | 157. Mahmud-Chala Lake |
| 5. Primorsko-Akhtarsk Salt Lakes | 81. Mtirala-Kintrishi | 158. Araz-Bahramtepe |
| 6. Lower reaches of the Beisug and Chelbas Rivers | 82. Bakhmaro | 159. Ag-Gol-Sarisu |
| 7. Lower Ei | 83. Goderdzi Pass | 160. Zangezur-Darasham |
| 8. Don Delta | 84. Shavsheti Range (1) | 161. Aras Reservoir |
| 9. Novoberezanskiy | 85. Borjomi-Kharagauli | 162. Sadarak |
| 10. Sredne-Labinskiy | 86. Nedzvi | Armenia |
| 11. Novotroitskiy | 87. Trialeti Range | 163. Lake Arpi |
| 12. Veselovskoye Reservoir | 88. Ktsia-Tabatskuri | 164. Mount Achkasar |
| 13. Manych-Gudilo Lake | 89. Tetrobi | 165. Tashir |
| 14. Dadynskiye Lake | 90. Meskheta | 166. Jajur |
| 15. Irgakliskaya Forest Area | 91. Kartsakhi-Sulda Mire | 167. Akhuryan Reservoir |
| 16. Kizlyar Bay | 92. Javakheti | 168. Armavir |
| 17. Tarumovskiy | 93. Khanchali Lake | 169. Aragats |
| 18. Argakhanskiy | 94. Bugdasheni Lake | 170. Mount Ara |
| 19. Yangiyurtovskiy-Sulakskaya | 95. Madatapa Lake | 171. Northeast |
| 20. Dagestanskiy (Sarykumskiy Barkhan) | 96. Saghama Lake | 172. Sevan Ridge |
| 21. Melishtinskiy | 97. Paravani Lake | 173. Lake Sevan |
| 22. Kayakentskiy-Deshlagarskiy | 98. Javakheti Range | 174. Khosrov Forest |
| 23. Papas (Adji) Lake | 99. Bedeni | 175. Khor Virap |
| 24. Itsari | 100. Kvernaki Ridge | 176. Armash Fish Ponds |
| 25. Samurskiy | 101. Tbilisi National Park | 177. Goravan Sands |
| 26. Berkubinskiy | 102. Kazbegi | 178. Urts Range |
| 27. Shalbuzdag | 103. Pshav-Khevsureti | 179. Gndasar |
| 28. Laman-Kam Area | 104. Tusheti | 180. Arpa |
| 29. Tlyaratinskiy | 105. Babaneuri | 181. Jermuk-Eghegis |
| 30. Kosobsko-Kelebskiy | 106. Eastern Caucasus | 182. Meghri |
| 31. Bezhtinskiy | 107. Lagodekhi | 183. Tatev |
| 32. Khunzakhskiy | 108. Alazani Valley | 184. Khndzoresk |
| 33. Kezenoi-Am (Lake Eizenam) Basin | 109. Artsivi Gorge | Turkey |
| 34. Erzi | 110. Chachuna-Vashlovani | 185. Giresun and Ordu Coast |
| 35. Ingushskiy | 111. Iori-Korugi | 186. Giresun Mountains |
| 36. Severno-Osetinskiy-Tseiskiy | 112. Iori Plateau | 187. Zigana Mountain |
| 37. Alania | 113. Jandari Lake | 188. Karadere |
| 38. Kabardino-Balkarskiy | 114. Gardabani | 189. Ikizdere and Soganli Mountain |
| 39. Kara-Su Sanctuary | Azerbaijan | 190. Upper Chorukh Valley |
| 40. Baksan Gorge | 115. Garayazi | 191. North Kackars |
| 41. Prielbrusie | 116. Jandar Lake | 192. South Kackars |
| 42. Gorge of the Eshkakon and Malka Rivers | 117. Agstapha | 193. Hatila Valley |
| 43. Surrounding of Kislovodsk | 118. Shamkir | 194. Hopa |
| 44. Upstreams of the Podkumok and Kuma Rivers | 119. Shortepe | 195. Karcali Mountains |
| 45. Dautskiy | 120. Gyzilja | 196. Yalnizcam Mountains |
| 46. Teberdinski-Marukhskiy | 121. Goy-Gol | 197. Posof Forest |
| 47. Upstreams of the Urup River | 122. Lachin | 198. Ardahan Plain and Forest |
| 48. Akhmet-Skala Ridge | 123. Gubadli | 199. Aktas Lake |
| 49. Damkhurtskiy | 124. Dashahty | 200. Cildir Lake |
| 50. Psebay | 125. Orta Kur Akhmazy | 201. Kuyucuk Lake |
| 51. Gorge of the White River | 126. Turyanchay | 202. Kars Ovasi |
| 52. Caucasian | 127. Korchay | 203. Allahuekber Mountains |
| 53. Northern Black Sea Region | 128. Qabirri-Mingachevir | 204. Sarikamish Forests |
| 54. Sochinsky | 129. Ajinohur | 205. Olur-Oltu Steppe |
| Georgia | 130. Ilisu (Akhar-Bakhar) | 206. Tortum Basin |
| 55. Arabika | 131. Sheki | 207. Kop Mountain |
| 56. Ritsa | 132. Ganikh Valley | 208. Palandoken Mountain |
| 57. Bzipi | 133. Zagatala | 209. Bingol Mountains |
| 58. Range Bzipi | 134. Ilisu-Gakh | 210. Karasu Plain |
| 59. Bichvinta-Miusera | 135. Shahdag | 211. Aras Valley |
| 60. Pskhu-Gumista | 136. Shahdag Mountain (1) | 212. Igdır Plain |
| 61. Abkhazia | 137. Shahdag Mountain (2) | 213. Agri Mountain |
| 62. Svaneti (2) | 138. Samur-Yalama-Gusar | 214. Dogubeyazit Marshes |
| 63. Range Kodori | 139. Aghzibir Lakes | 215. Tendurek Mountain |
| 64. Lake Bebesiri | 140. Altyaghach | 216. Eastern Van Mountains |
| 65. Svaneti (1) | 141. Garghabazar and Gush-Gaya Mountains | Iran |
| 66. Racha | 142. Absheron Archipelago and Pirallahi Bay | 217. Maku and Iran West Border |
| 67. Askhi Massif | 143. Gyrmzygol Lake | 218. Maku |
| 68. Khvamli | 144. Factory Shelf | 219. Agh-Gol |
| 69. Sataplia | 145. Gobustan | 220. Aras Dam Lake |
| 70. Kolkheti (Aquatory) | 146. Alat Bay-Baku Archipelago (1) | 221. Marakan |
| 71. Enguri River | 147. Alat Bay-Baku Archipelago (2) | 222. Kiamaky-Kantal |
| 72. Khobi River | 148. Alat Bay-Baku Archipelago (3) | 223. Dizmar-Arasbaran |
| 73. Kolkheti | 149. Alat Bay-Baku Archipelago (4) | 224. Parsabad |
| 74. Rioni River | 150. Alat Bay-Baku Archipelago (5) | 225. Mountain Sahand-Sabalán |
| 75. Supsa River | 151. Alat Bay-Baku Archipelago (6) | 226. Lavandvil |
| | 152. Shirvan | 227. Lisar |
| | | 228. Anzali Lagoon |
| | | 229. Gashtroodkhan |
| | | 230. Sepirud River and Bujagh |
| | | 231. Amirkelayeh |

Annex 2: Map of Protected Areas



Protected Areas corresponding to the IUCN Categories I-II and Biosphere Reserves:

Russia

1. Utrish Strict Nature Reserve
2. Sochinskiy National Park
3. Caucasian Strict Nature Reserve
4. Teberdinskiy Strict Nature Reserve
5. Prielbrusie National Park
6. Kabardino-Balkarskiy Strict Nature Reserve
7. Alania National Park
8. Severo-Osetinskiy Strict Nature Reserve
9. Erzi Strict Nature Reserve
10. Khunzakhskiy Natural Park
11. Dagestanskiy Strict Nature Reserve
12. Verkhniy Gunib Natural Park
13. Itsari Natural Park
14. Dzhalgan Natural Park
15. Samurskiy National Park

Georgia

16. Bichvinta-Miusera Strict Nature Reserve
17. Ritsa Strict Nature Reserve
18. Pskhu-Gumista Strict Nature Reserve
19. Kolkheti National Park
20. Kobuleti Strict Nature Reserve
21. Kintrishi Strict Nature Reserve
22. Kintrishi National Park
23. Mtirala National Park
24. Machakhela National Park
25. Sataplia Strict Nature Reserve
26. Borjomi-Kharagauli National Park
27. Borjomi Strict Nature Reserve
28. Javakheti National Park
29. Algeti National Park
30. Liakhvi Strict Nature Reserve
31. Kazbegi National Park
32. Pshav-Khevsureti National Park
33. Tusheti National Park
34. Tusheti Strict Nature Reserve
35. Batsara Strict Nature Reserve
36. Babaneuri Strict Nature Reserve
37. Tbilisi National Park
38. Mariamjvari Strict Nature Reserve
39. Vashlovani National Park
40. Vashlovani Strict Nature Reserve
41. Lagodekhi Strict Nature Reserve

44. Shahdag National Park
45. Samur-Yalama National Park
46. Altiagach National Park
47. Absheron National Park
48. Gobustan Strict Nature Reserve
49. Mud volcanos of Baku and Absheron Peninsula Strict Nature Reserve
50. Shirvan National Park
51. Shirvan Strict Nature Reserve
52. Gizilagaj National Park
53. Hirkan National Park
54. Ag Gol National Park
55. Turyanchay Strict Nature Reserve
56. Korchay Strict Nature Reserve
57. Eldar Shami Strict Nature Reserve
58. Garayazi Strict Nature Reserve
59. Goy Gol National Park
60. Gara Gol Strict Nature Reserve
61. Bastichai Strict Nature Reserve
62. Zangezur National Park

Armenia

63. Arevik National Park
64. Shikahogh Strict Nature Reserve
65. Khosrov Forest Strict Nature Reserve
66. Erebuni Strict Nature Reserve
67. Sevan National Park
68. Dilijan National Park
69. Lake Arpi National Park

Turkey

70. Karagol-Sahara National Park
71. Camili Biosphere Reserve
72. Camili-Efeler Nature Conservation Site
73. Camili-Gorgit Nature Conservation Site
74. Hatila Valley National Park
75. Kackackar Daglari National Park
76. Altindere Valley National Park
77. Orumcek Forest Nature Conservation Site
78. Kop Mountain National Park
79. Sarikamis Alahuekber Mounatin National Park
80. Agri Mounatin National Park

Iran

81. Kantal National Park
82. Arasbaran Biosphere Reserve
83. Boujagh National Park

Azerbaijan

42. Zagatala Strict Nature Reserve
43. Ilisu Strict Nature Reserve

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