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Delivering on CBD Commitments:

Programme of Work on Protected Areas across the Caucasus

CONTENT

INTRODUCTION

This brochure summarizes results of the review of the implementation of the Programme of Work on Protected Areas (PoWPA) under the Convention on Biological Diversity (CBD) in the Caucasus Ecoregion. It also highlights key developments and defines future needs and priorities to fill existing gaps in achieving the set objectives of the PoWPA.

The PoWPA implementation was reviewed for only five countries of the Caucasus Ecoregion Armenia, Azerbaijan, Georgia, Russia and Turkey. In these countries there are strong national and regional level partnerships of donors, governments, scientists and civil society which substantially supported Governments in delivering on CBD Protected Areas commitments. With the exception of some specific issues in Russia and Turkey, the given review mostly covers only areas of those countries found within the Caucasus Ecoregion.

I. PROGRAMME OF WORK ON PROTECTED AREAS

The Programme of Work on Protected Areas to the Convention on Biological Diversity, adopted by the seventh CBD Conference of the Parties (February 2004, Kuala Lumpur, Malaysia) is a worldwide effort to reduce the current rate of biodiversity loss at the global, regional, national and sub-national levels. Its overall purpose is to support the establishment and maintenance of terrestrial areas by 2010 and of marine areas by 2012 to ensure comprehensive, effectively managed, and ecologically representative national and regional systems of protected areas.

The PoWPA consists of four interlinked and cross-cutting implementation components:

- Planning, Selection, Establishment, Strengthening, and Management of Protected Area Systems and Sites;
- Governance, Participation, Equity and Benefit Sharing;
- Enabling Activities; and
- Standards, Assessment and Monitoring which feature goals and time-bound activities specific to protected areas.

The PoWPA assists countries to establish their own national programmes of work with targeted goals, actions, specific actors, time frame, inputs and expected measurable outputs. Countries may select from, adapt, and/or add to the activities suggested in the current PoWPA taking particular national and local conditions, including their level of development, into consideration. Implementation of the national programme of work should take an ecosystem approach recommended by Convention on Biological Diversity. In implementing their programme of work, countries are also encouraged to address the social, economic and environmental costs and benefits of various options. Finally, countries are encouraged to consider the use of appropriate technologies, sources of finance and technical cooperation and to ensure they acquire the means to meet particular challenges and demands that will arise within their protected areas.

The ultimate result of the PoWPA implementation is the establishment and maintenance of an efficiently managed, ecologically representative national and regional system of protected areas that is integrated into a global network of protected areas, where human activities are managed to maintain the structure and function of the full range of ecosystems to achieve a significant reduction in the rate of biological diversity loss and provide benefits for present and future generations.

II. CAUCASUS ECOREGION / HOTSPOT

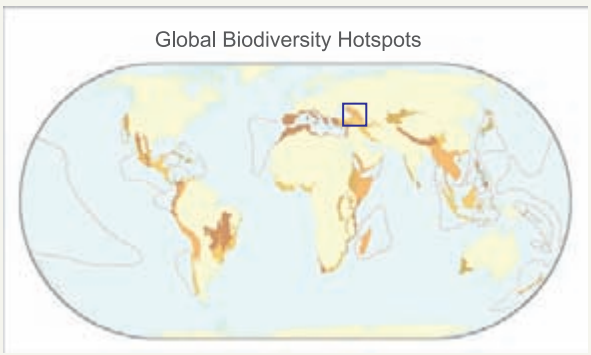
The Caucasus is one of the 34 biodiversity hotspots in the world and one of WWF's 35 Priority Places identified as focal among 200 globally outstanding Ecoregions. It has also been named a Large Herbivore Hotspot by WWF's Large Herbivore Initiative and as an Endemic Bird Area by BirdLife International.

The Caucasus Ecoregion / Hotspot spans 580,000 km2 of mountains in Eurasia, between the Black and Caspian Seas. It includes all of Armenia, Azerbaijan and Georgia, the North Caucasus portion of the Russian Federation, north-eastern Turkey and part of north-western Iran.

The region's unique geology and terrain, consisting of three major mountain chains separated by valleys and plains, have meant that a variety of microclimates, soils and vegetative conditions developed, resulting in a broad range of landscapes and unusually high levels of species diversity within the Temperate Zone. Climatic conditions are very diverse, with precipitation ranging from more than 4,000 mm per year in the south-western Caucasus to less than 200 mm a year in deserts of the eastern Caucasus.

The Caucasus has the greatest biological diversity of any temperate forest region in the world. It includes around 7,500 species of vascular plants, out of which about 2,600 (35%) are endemic to the region. This is the highest level of vascular plant endemism in the temperate zone of the northern hemisphere. Forests, high mountains, wetlands, steppes and semi-deserts contain more than twice the plant and animal diversity found in adjacent regions of Europe and Asia. At least 153 mammals inhabit the Caucasus Hotspot, one-fifth of which are endemic. Around 380 species of birds are found here including four endemics. The coasts of the Black and Caspian Seas are important stop-over sites for millions of migratory birds which fly over the isthmus each spring and autumn between their breeding and wintering grounds. Twenty-one of the 87 reptile species are endemic to the hotspot and 17 species of amphibian are found, of which four are endemics. More than a third of the 200 species of fish in the rivers and seas of the hotspot are found nowhere else in the world.

In addition to its outstanding biological value, the Caucasus Hotspot offers wide cultural diversity, where a multitude of ethnic groups, languages and religions intermingle over a relatively small area.



III. PROGRAMME OF WORK ON PROTECTED AREAS ACROSS THE CAUCASUS

1. Multi-stakeholder cooperation mechanism

2. National protected areas systems and gap analyses

3. Protected area connectivity and integration

4. Regional networks and transboundary protected areas

5. Enabling policy, institutional and socio-economic environment

6. Management planning and management effectiveness

7. Capacity and appropriate technologies

8. Sustainable financing

9. Research and monitoring

KEY PROGRESS HIGHLIGHTS

- Over one million hectares new PA since 2004 throughout the Ecoregion.
- Increased governmental funding.
- Multi-Stakeholder cooperation mechanism and strong partnership at national and regional levels.
- Basic assessments of legal and institutional environments, PA management effectiveness, capacity needs and sustainable financing, and defined future priorities and Action Plans.
- Caucasus Biodiversity Council as the only regional coordination body.
- Caucasus Protected Areas Fund/Caucasus Nature Fund as the first effort to create PA sustainable financing mechanism in the region.
- Caucasus Biodiversity Monitoring Network as the first biodiversity monitoring tool at regional level.

1. MULTI-STAKEHOLDER COOPERATION MECHANISM

The PoWPA, as an umbrella for a global Protected Areas system, has promoted and stimulated strong partnerships as well as coordinated multi-stakeholder initiatives for protected areas systems in the Caucasus, all of which have resulted in significant achievements and a vision for future developments.

Caucasus Biodiversity Council

The Caucasus Biodiversity Council (CBC), functioning since 2004, is the only regional coordination body consisting of officially nominated government representatives and NGO delegates from all six countries of the Ecoregion. The council invites academics to participate in its meetings, which are organized twice a year. Since its establishment, the CBC has proven invaluable to conservation in the region, not only by promoting and monitoring the implementation of the Caucasus Ecoregional Conservation Plan, but also by facilitating the implementation of regional programs and projects. It provides a forum for the exchange of opinion and promotes regional and transboundary cooperation. Among other relevant international commitments and programs in recent years the CBC significantly has contributed to and coordinated the PoWPA implementation in the Region.

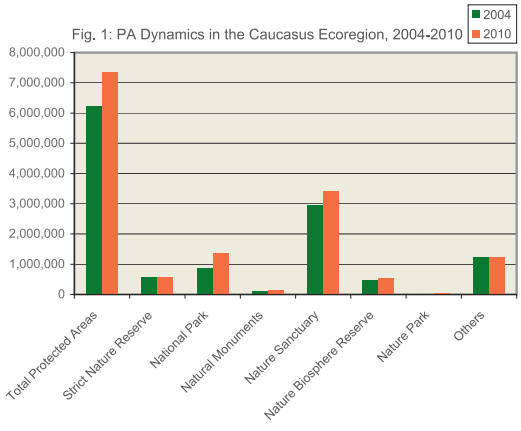
Mechanisms for National Level Coordination

Multi-stakeholder coordination mechanisms have been established in Armenia, Azerbaijan, Georgia, Russia and Turkey with the main objective of ensuring coordination and favorable conditions for the successful implementation of the PoWPA. This is done through setting priorities and engaging key partners and stakeholders in the PoWPA implementation process. In case of Armenia, Azerbaijan and Georgia these coordination mechanisms are established as National Coordination Committees; in Russia they function as the Council for Protected Areas of the Northern Caucasus; and in Turkey they operate as the Protected Areas Technical Group. These multi-stakeholder bodies organize periodic meetings to review the ongoing implementation of PoWPA in their respective countries and set priorities.

Protected Areas within the Caucasus Ecoregion

Protected Areas have been recognized as the cornerstone of biodiversity conservation in the Caucasus for almost a century. There are several different national categories of PA in the Caucasus and part of them corresponds to IUCN categories as well: Strict Nature Reserve (corresponds to IUCN-I), National Park (correspond to IUCN-II), Natural Monument (corresponds to IUCN-III), Nature Sanctuary, Wildlife Reserve and Wildlife Refuge (correspond to IUCN-IV), Protected Landscape (corresponds to IUCN-V), Multiple Use Territory (corresponds to IUCN-VI), Nature Park (corresponds to IUCN-II in Russia and IUCN-IV in Turkey), Nature Biosphere Reserve as well as Resorts and Health Spas. Considering its protection and management regime, Nature Biosphere Reserve in the Russian part of the Caucasus corresponds to IUCN category I.

Fig. 1: PA Dynamics in the Caucasus Ecoregion, 2004-2010



Including all categories, there are now up to 1163 PA sites in the Caucasus Ecoregion, covering 12.7 percent of its area. Considering areas of specific countries within the Caucasus boundaries, portions of protection of the Ecoregion by countries differ: Armenia – 0.6 percent, Azerbaijan – 1.5 percent, Georgia– 0.9 percent, Russia – 8.1 percent, Turkey – 0.9 percent and Iran – 0.7 percent.

Protected Areas corresponding to IUCN categories I to IV status cover around 10 percent of the Ecoregion. Since 2004, through the creation of new protected areas and expansion of existing ones, protection of the Ecoregion was extended by nearly 1.9 percent. However, the current PA system within the Caucasus is not sufficiently large and ecologically representative to maximize their contribution to conservation of the unique biodiversity in the region. Strong efforts still required to develop effectively managed PA system across the Ecoregion.

NATIONAL PROTECTED AREA SYSTEMS AND GAP ANALYSES

Armenia launched its protected areas system in 1958 with the creation of Strict Nature Reserves and Sanctuaries. Today, the protected areas cover nearly 12.4 percent of the country's territory, (including Lake Sevan as part of Sevan National Park, or 4 percent of the territory of Armenia) and comprise three Strict Nature Reserves, four National Parks and 27 Nature Sanctuaries. Since 2004 PA coverage in Armenia was increased by nearly 1.8 percent through the creation of new National Parks and Nature Sanctuaries. In 2009 the Government approved 230 new Natural Monuments and the precise territories of these new PA will be defined during the next stage

Fig. 2: PA Dynamics in Armenia, 2004-2010

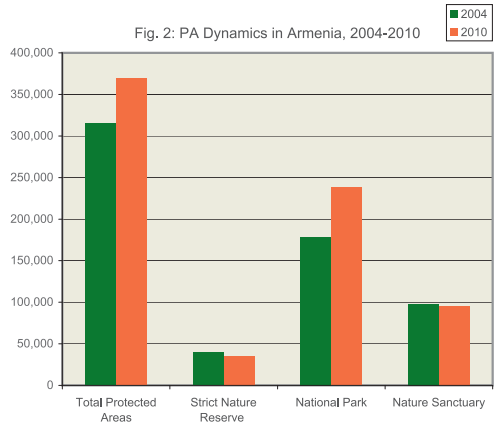
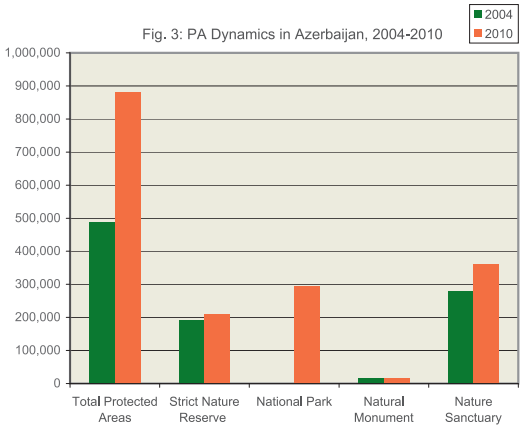


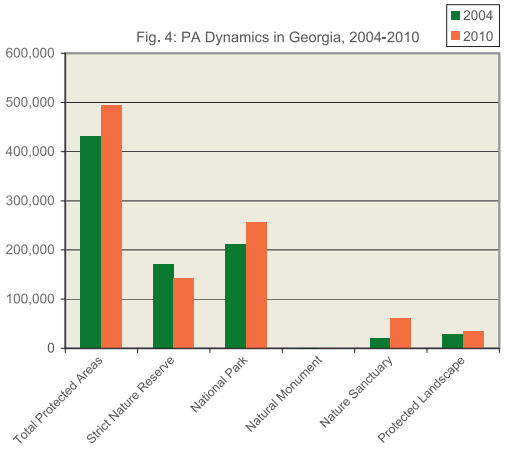
Fig. 3: PA Dynamics in Azerbaijan, 2004-2010



Azerbaijan's system of strictly protected nature reserves was initiated in 1925, when the Gey-Gel Strict Nature Reserve was created in the Lesser Caucasus. Today, protected areas cover nearly 10.2 percent of the country's territory and comprise 11 Strict Nature Reserves, eight National Parks, 30 Natural Monuments and 24 Nature Sanctuaries. Azerbaijan has been very successful in developing protected areas within a short time. Since 2004, PA coverage in Azerbaijan has increased by nearly 4.5 percent by establishing new National Parks and Nature Sanctuaries and extending existing Strict Nature Reserves.

Georgia created the first Strict Nature Reserve in 1912 which was also the first for the whole Caucasus Ecoregion. Today protected areas cover nearly 7.1 percent of the country's territory which comprise 14 Strict Nature Reserves, eight National Parks, 14 Natural Monuments, 12 Nature Sanctuaries and two protected landscapes. Additionally, there are five Multiple Use Territories which have been legally established though their coverage area has still to be defined. Several protected areas were planned in 2009-2010 to be further developed and approved, including the inventory and identification of priority Natural Monuments as an important part for further development of a PA system in Georgia. Since 2004 PA coverage in Georgia has increased by nearly one percent through the creation of new National Parks, Nature Sanctuaries and Protected Landscape.

Fig. 4: PA Dynamics in Georgia, 2004-2010



Russia currently has more than 12,000 national, regional and local protected areas that cover nearly 200 million hectares or 11.9 percent of the country`s territory. The first strict nature reserve in the Russian (Northern) part of the Caucasus was established in 1924. Today, all categories of protected areas in the Russian part of the Caucasus cover 17.4 percent of this area and in relation to the whole country contributes to the protection of 0.3 percent of Russian territory. Five Strict Nature Reserves, four Nature Biosphere Reserves *(corresponding to IUCN I)*, three National Parks, five Nature Parks and 110 Nature Sanctuaries cover 13.6 percent of the Russian part of the Caucasus while hundreds of Natural Monuments and tens of Resorts and Health Spas with federal, regional and local status cover a remaining 3.8 percent of the area. Since 2004 PA coverage in the Russian part of the Caucasus increased by nearly 1.8 percent through the creation of new Nature Reserves, Natural Monuments, Nature Parks and Nature Sanctuaries.

Fig. 5: PA Dynamics in the Russian part of the Caucasus Ecoregion, 2004-2010

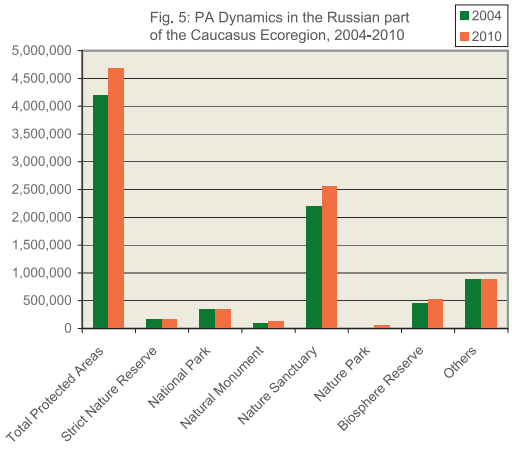
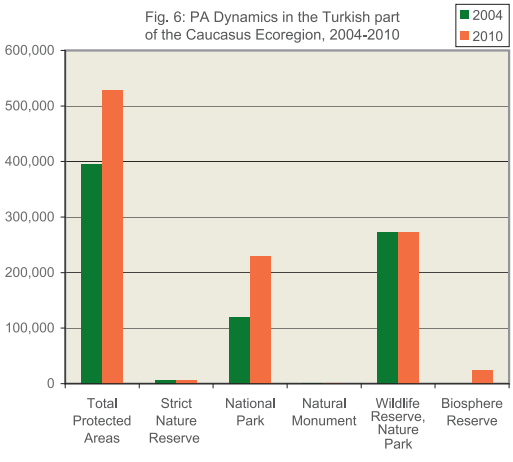


Fig. 6: PA Dynamics in the Turkish part of the Caucasus Ecoregion, 2004-2010



Turkey founded its first national park in 1958 and now has around 305 different categories of protected areas covering about 4.5 percent of the country's entire territory. Today, protected areas in the Caucasus part of Turkey cover 7.7 percent of this area and in relation to the whole country contributes to the protection of 0.7 percent of the country's territory. Four Strict Nature Reserves, eight National Parks and 14 Wildlife Reserves and Nature Parks *(corresponding to IUCN IV)* cover 7.4 percent of the Turkish Caucasus while 12 Natural Monuments and a Biosphere Reserve cover the remaining 0.3 percent of this area. Since 2004 PA coverage in the Turkish Caucasus increased nearly by 1.9 percent through the creation of new National Parks and a Biosphere Reserve.

Gap Analysis

From the Southern Caucasus Countries, a PA system gap analysis was initiated in Armenia in 2009 and at the same time background studies were carried out in Azerbaijan and Georgia. For example, the analysis of further nature conservation and expansion of the PA in Azerbaijan was completed in 2009, which gives recommendations for bridging the gaps within the national PA system and how to harmonize with EU standards. In Georgia, priority areas for conservation of key forest ecosystems were identified in 2005. Currently Georgia participates in development of the Emerald/Ecological Network which is identifying new areas of special conservation interest sites to further expand the Emerald Network throughout the country (http://www.dzzp.hr/eng/projects-financed-from-eu-funds/council-of-europe/emerald-network-768.html).

Russia completed a PA gap analysis in 2009, which was the first of its kind for the country in which a unified scientific and methodological approach was applied (http://www.wwf.ru/resources/publ/book/293/). Based on the results of their gap analysis, a perspective framework of the PA system was developed: 566 priority marine and terrestrial areas covering around 183 million hectares were identified for further optimization, expansion and perfection of the PA network in the country. From this overall result, the creation of 52 new different categories PA and optimization of 9 PA are planned within the Russian part of the Caucasus Ecoregion.

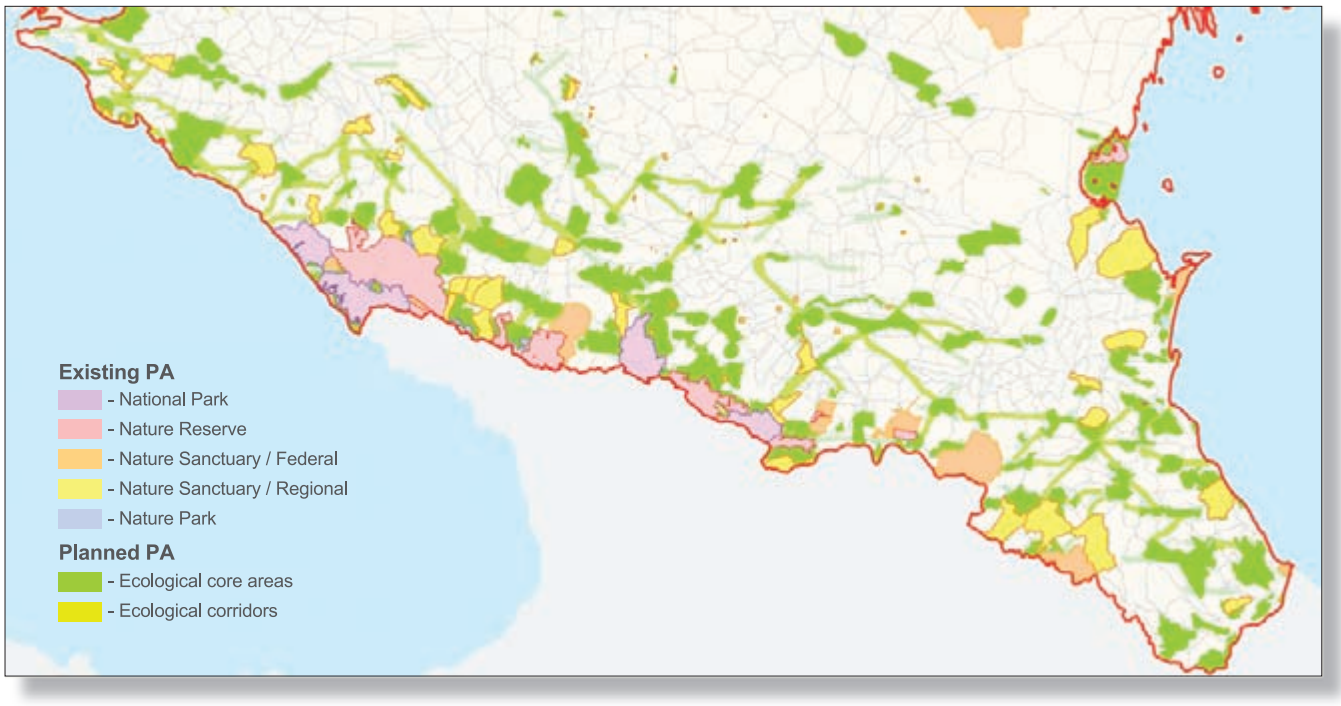
Turkey has carried out a PA gap analysis since 2004, and has completed it for almost half of the country. In early 2010 this assessment was expanded to include the Caucasus part of Turkey, to be accomplished by 2011. Turkey also was covered by the Pan-European Ecological Network initiative in South-East Europe in the framework of the Pan-European Biological and Landscape Diversity Strategy.

3. PROTECTED AREA CONNECTIVITY AND INTEGRATION

The concept of ecological networks, including connectivity and integration at policy and practical-site levels, is not adequately acknowledged in the Caucasus countries. However, it is increasingly recognized that the traditional approach of focusing on the protection of individual sites and species is not effective or sufficient in the long term, and a wider ecosystem approach is crucial for biodiversity conservation and maintaining ecological processes and ecosystem services.

The development of PA connectivity and the concept of an ecological network are challenging, however. The main constraints are a lack of spatial and landscape planning approaches and the absence of ecological connectivity tools in the region. Itself, this makes also difficult to integrate PA into sectoral plans and strategies at policy level.

There is an example of Ecological network planning in the Russian part of the Greater Caucasus Corridor, where an ecological network or "Econet" scheme was developed based on an analysis of satellite images, biodiversity data, as well as landscape and topographical maps. The Econet scheme stretches for nearly 1,500 kilometres along the Greater Caucasus, from the Black Sea to the Caspian Sea, and incorporates protected areas and multiple-use areas into a continuous, efficiently managed system. The Econet scheme provides a strong basis for further land-use planning, sustainable regional development and development of the protected area system, as well as a guide for biodiversity conservation activities. All key stakeholders from government, NGOs and academia were involved in the development of the Econet scheme, and around 60 experts and government staff working on land-use planning, conservation and sustainable use of natural resources received training in the use of GIS.



4. REGIONAL NETWORKS AND TRANSBOUNDARY PROTECTED AREAS

Regional Network Planning

The concept of regional networks, including connectivity and transboundary protected areas, has become increasingly important for biodiversity conservation in the region. There are national and regional level efforts which create a strong basis for the Caucasus regional network, and contribute to its development. However more steps are needed to advance and accomplish the planning process. Currently two key basic planning documents are available for further development of the Regional Network in the Caucasus: (i) the Ecoregional Conservation Plan and (ii) the Caucasus Biodiversity Hotspot Ecosystem Profile. Around 150 experts from all six Caucasus countries contributed to the development of these regional strategic documents. Both of them supported the identification of priority conservation area sites and ecological corridors. In addition there are assessments of Important Bird Areas, Key Biodiversity Areas and Important Plant areas in the Caucasus.

Ecoregional Conservation Plan

The Ecoregional Conservation Plan (ECP) creates a roadmap for biodiversity conservation in the Caucasus and defines long- and medium-term targets and set of concrete actions (http://wwf.panda.org/what _we_do/where_we_work/black_sea_basin/caucasus/?193459/Ecoregional-Conservation-Plan-for-the-Caucasus). Four priority biomes – forest, freshwater, marine and high mountain, contain the bulk of biodiversity in the Ecoregion and they were selected as priorities for conservation. Within these biomes, 26 focal species, 56 priority conservation areas (PCA) and 60 wildlife / priority conservation corridors to ensure connectivity of PCA were identified. Out of these PCA and corridors, six are in Armenia, 25 in Azerbaijan, 13 in Georgia, 21 in Russia, six in Turkey, 15 in Iran and 30 are transboundary. According to the ECP protection should be extended over the next period for an additional ten percent of forests, five percent of freshwater ecosystems, five percent of Black Sea and Coastline ecosystems and eight percent of highland ecosystems. The ECP has been endorsed by Ministers of Environmental Protection from the Caucasus countries.

Caucasus Biodiversity Hotspot Ecosystem Profile

The Caucasus Biodiversity Hotspot Ecosystem Profile (http://www.cepf.net/where_we_work/regions/europe_central_asia/caucasus/Pages/ default.aspx) was developed and implemented in the framework of investment strategies by the Critical Ecosystem Partnership Fund (CEPF) in the period of 2004-2009. As a result of scientific definitions of conservation outcomes forming an Ecosystem Profile, a total of 50 globally threatened target species were identified and 205 priority sites were defined for the target species across the Caucasus covering 19 percent of the hotspot. On a larger spatial scale, 10 regional conservation corridors were identified in the Caucasus, based on their importance for biodiversity conservation. Of these, five corridors were determined to be priority for the CEPF investment.

REGIONAL NETWORKS AND TRANSBOUNDARY PROTECTED AREAS

Transboundary Protected Areas and Cooperation

Key transboundary priority conservation areas for biodiversity in the Caucasus were identified, however the development of transboundary cooperation is a very long and complex process involving many leading actors. There must be agreement on a specific set of objectives and actions related to the designation and management of a transboundary area. To date, transboundary cooperation has been initiated between Armenia-Georgia and Georgia-Turkey.

Transboundary Protected Areas between Armenia and Georgia

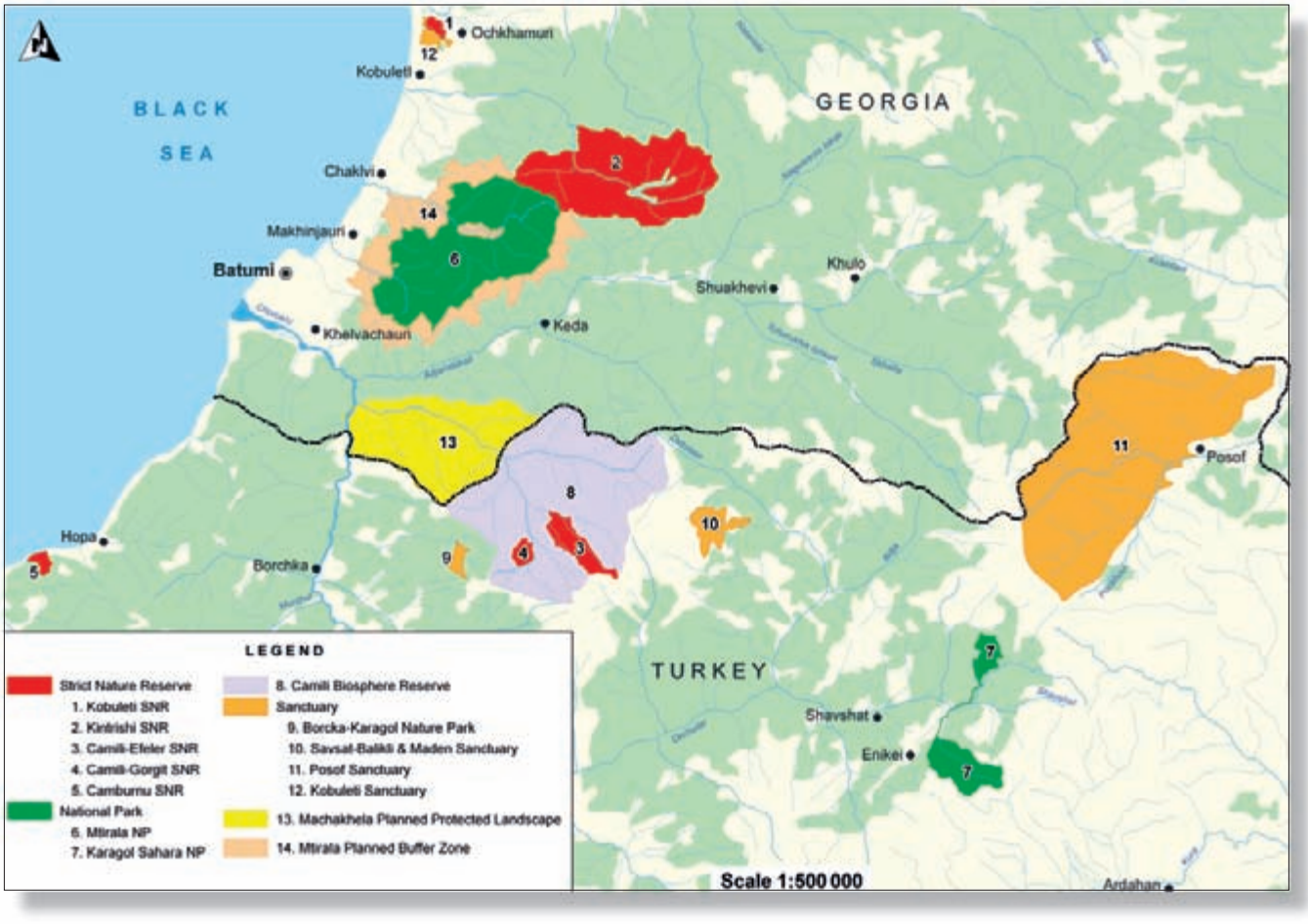
The new Lake Arpi National Park in Armenia and the planned Javakheti National Park in Georgia lie in the Shirak-Javakheti transboundary priority conservation area. This territory of around 3,000km2 with an average altitude of 2,023 meters straddles the border area between Armenia, Georgia and Turkey. The governments of Armenia and Georgia have agreed to establish coordination between these two new PA with the aim of developing a common vision, objectives and implementation of joint programs. The national park has been established in Armenia while in Georgia the process is underway.

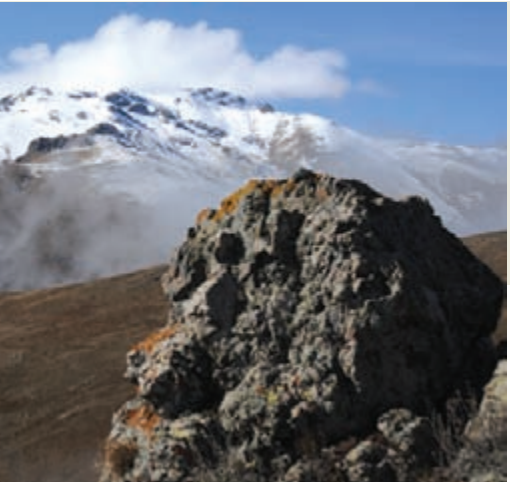
REGIONAL NETWORKS AND TRANSBOUNDARY PROTECTED AREAS

Transboundary Cooperation between Georgia and Turkey

In 2010, the Governments of Georgia and Turkey signed an agreement to cooperate in the field of environment and forestry which covers the PA field as well. There is wide range of activities to strengthen transboundary cooperation in the field of PA between Georgia and Turkey, such as bilateral meetings between representatives of government, NGOs and academia, as well as the creation of joint working groups and exchange programs. The introduction of the Goitred Gazelle has been undertaken, with individuals from Turkey sent to Georgia for further captive breeding and re-introduction into the wild.

In the West Lesser Caucasus Corridor, the Natural-Landscape Territory of Mtirala and Machakhela was created with a combined area of 22,941 hectares, through the development of a spatial planning document. The next step is to establish two new protected areas: (i) a buffer zone to Mtirala National Park (10,202 hectares); and (ii) Machakhela Protected Landscape (12,739 hectares). Georgia`s Machakhela Protected Landscape will be further developed into a transboundary PA with Turkey`s Jamili Biosphere Reserve along the Machakhela gorge.





5. ENABLING POLICY, INSTITUTIONAL AND SOCIO-ECONOMIC ENVIRONMENT

Policy and Institutional Environment Assessment

There are national legal frameworks that address protected areas and regulate PA planning, governance and management, defining the relevant responsible institutions and parties.

During 2007 and 2008, legislative and institutional gaps and barrier assessments were carried out in Armenia, Azerbaijan, Georgia, Russia and Turkey. Key players from Governmental and non-governmental sectors were involved in the assessment process. In the case of Armenia, Azerbaijan and Georgia, results of the assessments were discussed at stakeholders' workshops, then recommendations and plans for urgent action were developed.

Armenia and Georgia developed the Action Plans for improvement of PA-related national legislation and institutional management while Azerbaijan drafted new amendments and regulations to Protected Areas legislation.

In Russia, based on the analysis results, proposals for improving the existing PA legislation were developed and a draft of a new version of the Federal Law "On Specially Protected Natural Areas" was developed.

Among recommended and planned actions, some are aimed at harmonizing sectoral policies and laws to support proper delegation of responsibilities between institutions concerned and to ensure effective PA planning, governance and management. Huge efforts by key stakeholders and the willingness of Governments are needed to promote the process and ensure effective legislative changes on the ground.

ENABLING POLICY, INSTITUTIONAL AND SOCIO-ECONOMIC ENVIRONMENT

Governance and participation

Public participation is increasingly recognized as indispensable for gaining local community support to establish new PA.

Generally relevant national legislation acknowledges the importance of participation and consultations with local communities in planning and managing PA to some extent. Involvement of local communities and other stakeholders is sometimes ensured through special public hearings, advisory boards or stakeholders' councils for individual protected areas, stakeholders` working groups at the planning stage and local management committees at the management stage.

However this issue still needs to be addressed and improved: the level of involvement of local citizens in making decisions directly related to their interests is still relatively low. Strengthening the adaptive and collaborative planning and management of PA is one of the most significant recommendations to avoid conflicts of interest, maximize biodiversity conservation efforts and consider the needs of local communities.

Protected areas in the Caucasus are considered as under public ownership and managed by governmental institutions. PA national legislations of Azerbaijan, Georgia, Russia and Turkey do not acknowledge other models of PA governance. However, the law on protected areas in Armenia defines different types of PA governance and describes mechanisms to transfer management responsibilities to another body. However, in Armenia, all PA are managed by the Government and the first pilot initiative to create different models of PA management was started very recently. There are obstacles to the promotion of innovative forms of governance such as a lack of relevant legislation, local cultural contexts and awareness or understanding of the issue, as well as a lack of experience, good examples and best practices.

ENABLING POLICY, INSTITUTIONAL AND SOCIO-ECONOMIC ENVIRONMENT

Equity and Benefits

National-level assessments of the contributions of PA to the countries' economy and culture are quite new and had not been carried out in the Caucasus.

Today, however, the assessment process of PA contribution to the country's economy has been initiated in Georgia and is underway. There are also a few cases of PA benefit-assessments and valuation of ecosystem services in the Russian part of the Caucasus.

Such kinds of assessments are increasingly recognized as the most effective way to integrate PA value and economic benefits into Sectoral Plans and Strategies.

6. MANAGEMENT PLANNING AND MANAGEMENT EFFECTIVENESS

Management Planning

Management planning has long been recognized as the first crucial step for proper establishment and effective management of protected areas in the region and this is starting to be reflected in national legislation and strategic documents of some countries in the Ecoregion. For example, the development and official adoption of PA management plans is now obligatory in Georgia and approved by the Minister of Environment Protection and Natural Resources. National legislation in Armenia states that management plans of specially protected natural areas should be developed according to methods approved by the authorized state body. Such "Methodological Instructions for the Management Planning of the Specially Protected Natural Areas in Armenia" were approved by the Minister of Nature Protection in 2008. In Russia, according to an order by the Minister of Natural Resources on "Improvement of the Planning System for Core Activities of Nature Reserves and National Parks", all nature reserves and national parks are required to prepare management plans. In Azerbaijan each PA has its own regulations approved by the Cabinet of Ministers.

Some basic capacity-building activities were carried out to support the management planning process. Guidelines have been developed on (i) National Park Management Planning in the South Caucasus; (ii) Management Planning for Protected Areas in Georgia and (iii) Development of Management Plans for the Specially Protected Nature Areas in Armenia *(http://jointsecretariat.org/index.php?a=main&pid=17&lang=eng).* Training modules on themes related to PA management were developed in Georgia and trainings were provided to PA staff. Over the last five years numerous training courses and exchange study tours have been organized for PA managers and staff throughout the region.

Despite the enabling efforts and the fact that developing protected areas management plans is a high priority for the Caucasus countries, PA management planning is still a weakness and needs to be adequately addressed. To date only small number of PA in the region has management plans without incorporation of key aspects of climate change, ecosystem services and sustainable livelihoods. More management plans are being created in all countries of the Ecoregion. Trainings and study tours for management planning are mostly carried out piecemeal, within different initiatives, projects and programmes. Thus they do not have a permanent character within long-term strategies and this directly impacts sustainability and staff capacities.

Management Effectiveness

The evaluation of management effectiveness is a vital component of responsive and pro-active protected area management. In the period of 2008-2009, Protected Areas Management Effectiveness assessments were carried out in all countries across the Ecoregion. The assessment process used the Rapid Assessment and prioritization of Protected Areas Management (RAPPAM) methodology *(http:// wwf.panda.org/what_we_do/how_we_work/conservation/forests/tools/rappam/)* with a wide participatory approach with all key stakeholders involved in the process. The assessment process, revealing strengths, weaknesses, pressures and threats at system and site levels, was completed through stakeholders' workshops. This all resulted in the assessment reports, including recommendations on further actions to improve the PA system.

MANAGEMENT PLANNING AND MANAGEMENT EFFECTIVENESS

In the Southern Caucasus Countries the assessment results were used to develop the PA Capacity Development Action Plan. Additionally, management effectiveness of some individual PAs in Armenia and Turkey was assessed through the Management Effectiveness Tracking Tool (METT).

Finally, management effectiveness of around 80% of the PAs was assessed in the region. The next important step is to follow recommendations and plans for actions from the assessments.

Threats

Protected Area threats and risks assessments are conducted as part of the PA management effectiveness assessment to identify which threats are more prevalent and which protected areas are most threatened and must be adequately addressed.

All countries of the Ecoregion have the relevant legislation which set out required procedures on Environmental Impact Assessment for development projects or other activities which may directly or indirectly affect protected areas at any level. In some case, such legislation even requires public hearings and consultations. In certain cases, there are norms on liability and redress either through administrative or criminal laws or through other legal means, for illegal activities with negative impacts on PA.

However, there are many local threats to PA and due to a lack of permanent monitoring and control, sometimes it is impossible to address them adequately and in a timely way.

7. CAPACITY AND APPROPRIATE TECHNOLOGIES

A capacity needs assessment is a fundamental for the whole PA system. It deals with needs at both institutional and site levels, linking directly to PA management planning and effectiveness. In 2007-2008, PA Capacity Needs Assessments were carried out in Armenia, Azerbaijan, Georgia and Turkey. Following on the results of these assessments, Capacity Development Action Plans were developed in Armenia, Azerbaijan and Georgia with the active involvement of all key stakeholders. The Plans provide detailed actions and timelines for building capacity for human resource development; management planning; infrastructure development; enhancement of legislation; research, data and inventory management; protected areas system management; innovative approaches and technologies; sustainable financing; collaboration and partnerships; public awareness and education; and intersectoral collaboration and intra-organizational development.

From different kinds of capacity needs, efforts mostly have been to address human resources capacity-building in the Caucasus Countries. For example, in Azerbaijan, the Skill Upgrading Institute under of the Ministry of Ecology and Natural Resources was established and trainings are provided for PA staff on a regular basis. In Russia, a special PA Training Centre is functioning within the Environmental Education Center - "Zapovednics (http://www.wildnet.ru/directions/seminary/info/) and PA staff from the country have training opportunities in themes related to PA management. In Turkey, most training was provided within different projects and initiatives. However, technical and infrastructure capacities were improved for a few PA in Armenia, Azerbaijan and Georgia. In Armenia the governmental programme on Capacity Strengthening of the PA system was approved and implementation begun.

Despite the capacity-building efforts, still there are national and local/site-level capacity gaps in the Caucasus PA system. Different kinds of one-off and short-term capacity building activities take place without ensuring any long-term national capacity-building. This issue should be addressed in a more strategic way with a sustainable approach, strong partnerships and joint efforts by key stakeholders such as governmental institutions, donor agencies, non-governmental organizations and scientists.

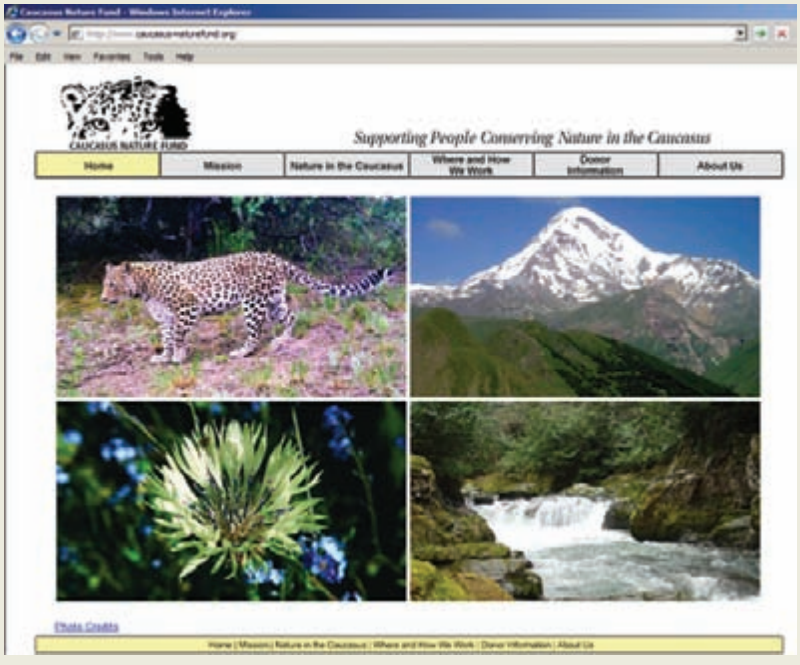
8. SUSTAINABLE FINANCING

One of the fundamental needs for effective PA system is sustainable financing. National level financial needs assessments were carried out in Armenia, Azerbaijan and Turkey and based on these results Sustainable Financing Plans were developed for Armenia and Azerbaijan while key recommendations were developed for Turkey. The same kind of assessment is being carried out in Georgia which will result in a Sustainable Financing Plan, complemented with clear legal authority and a better policy environment for PA sustainable financing.

Protected area systems are principally funded by the Governments through national state budgets. However, there is significant amount of donors' funding for the development of PA systems in the Caucasus. Government funding has significantly increased in recent years yet remains far below the estimated needs for effective management of PA.

Caucasus Protected Areas Fund / Caucasus Nature Fund

The Caucasus Protected Areas Fund (CPAF) is the first regional level sustainable financing mechanism, and established as a German Charitable Foundation (http://www.caucasus-naturefund.org/). The CPAF`s mission is to support the Ecoregion-based conservation of unique and globally significant biodiversity by providing long-term co-financing for protected areas in the Southern Caucasus Countries of Armenia, Azerbaijan and Georgia. The CPAF is an endowment trust fund with the core endowment target of €50 million, where contributions to its endowment are invested and only the investment earnings are spent on Caucasus nature conservation. An endowment of this size enables the fund to offer grants totalling €1.7 million annually. The Fund has also foreseen two alternative directions of funding - Sinking Fund Gifts and Single Country Gifts, to make contributions. The CPAF is designed to ensure sustainable co-financing up to 50% of PA costs and to match the Governmental budgetary contributions. This is how the CPAF aims to ensure financial sustainability of the region's protected area system, enabling them to maximize their contribution to regional biodiversity conservation in the context of sustainable development. To date, the CPAF has raised an initial endowment capital of €8 million (the German government through BMZ and KfW, WWF and the Global Conservation Fund at Conservation International). Additionally, the CPAF was supported through the Sinking Fund portion nearly with US$2 million by GEF/UNDP. The CPAF has begun functioning and has initiated pilot projects in PA of Armenia and Georgia.



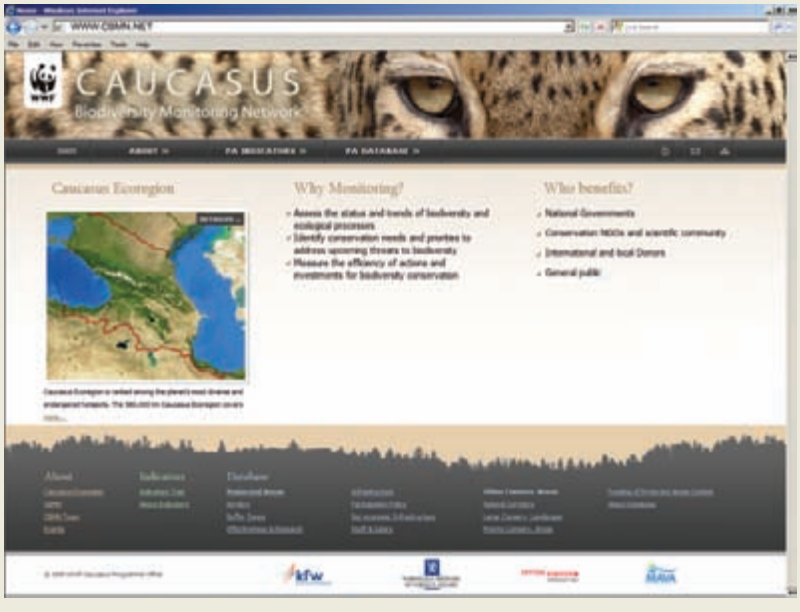
9. RESEARCH AND MONITORING

Research and monitoring are crucial components throughout the whole process of planning and management of protected areas. The level of research and monitoring activities and programmes differ according to country. In some countries, PA administration is responsible for annual research and monitoring of biodiversity within PA and the results are compiled under the term of "Nature Chronicle". In some cases there are joint research projects in close cooperation with scientific institutions within the PA. However this is not regular and often depends on particular needs from the scientific sector and is staffed by external scientists, research agencies and universities. Generally, cooperation between the governmental and scientific sectors for biodiversity research and monitoring within PA are encouraged and improved. The progress of research and monitoring varies also in terms of the quality of nation-wide PA databases that permit us to see dynamics of PA system changes. For example, there are different PA databases available in Russia (http://www.biodat.ru /db/oopt/all/index.htm; http://oopt.info). Georgia established a National Biodiversity Monitoring Network which includes indicators for monitoring of PA as well (www.biomonitoring.moe.gov.ge). Turkey establsihed Biodiversity Monitoring System which also covers the field of PA.

However, regular research and monitoring on the distribution, status and trends of biodiversity within a given PA system or monitoring of PA system as a whole still remain urgent fields to be developed, using new technologies and methodologies at national levels.

Caucasus Biodiversity Monitoring Network

The Caucasus Biodiversity Monitoring Network (CBMN) is the first regional biodiversity monitoring tool in the Caucasus, established in 2010 (www.cbmn.net). The CBMN directly contributes to the implementation of CBD targets and represents a long-term biodiversity monitoring system with the main objectives to assess the status and trends of biodiversity and ecological processes; identify conservation needs and priorities; and to address upcoming threats to biodiversity. The monitoring network includes the special monitoring segment for protected areas. Indicators set for the PA system give an opportunity to monitor main trends and dynamics in a PA system, to get information on PA management and to measure outcomes being achieved in relation to PoWPA goals and targets. Basically, the CBMN encompasses all countries of the Caucasus Ecoregion. However, currently the Network operates only for the Southern Caucasus Countries of Armenia, Azerbaijan and Georgia, with perspectives to be further expanded throughout the Ecoregion.



IV. FUTURE NEEDS AND PRIORITIES

PA gap analysis leading to ecologically representative PA systems.

National ecological networks considering issues of climate change, connectivity, ecosystem services and governance type.

Regional PA network and strengthened transboundary cooperation.

Supportive and harmonized policy, institutional and legal environment through perfection of legislation base and strengthening multi-stakeholder and inter-sectoral cooperation.

Integrated PA needs into national development and financing strategies and programmes.

Sustainable and adequate financing mechanisms through diversification of financial sources and promoting various innovative financial mechanisms.

Adequate capacity in human and technical resources as well as in methodological and innovative technology fields through implementation of sustainable capacity development programmes.

Effective and technologically well-equipped PA databases and monitoring systems.

Interdisciplinary research to improve understanding of the ecological, social and economic aspects of protected areas, including methods and techniques for valuation of goods and services from protected areas.

National- and site-level assessments on the contributions of protected areas to the country's economy.

Information mechanisms directed at target groups such as the private sector, policy makers, development institutions, community-based organizations, the media, and the general public.

Programmes for education and public awareness raising on the importance of protected areas.

KEY GOVERNMENTAL INSTITUTIONS, DONORS AND PARTNERS

Their willingness, generous contribution and investments, joint efforts and partnership, made progress happen across the Caucasus

The Ministry of Nature Protection of Armenia
The Ministry of Ecology and Natural Resources of Azerbaijan
The Ministry of Environment Protection and Natural Resources of Georgia
The Ministry of Natural Resources of the Russian Federation
The Ministry of Environment and Forestry of Turkey

Global Environmental Facility (GEF)
The World Bank (WB)
United Nations Development Programme (UNDP)
KfW Entwicklungsbank (KfW)
German Federal Ministry for Economic Cooperation and Development (BMZ)
German Federal Agency for Nature Conservation (BfN)
German Federal Ministry for the Environment (BMU)
German Society for Technical Cooperation (GTZ)
Norwegian Ministry of Foreign Affairs
MAVA Fondation Pour La Nature (MAVA Foundation)
Critical Ecosystem Partnership Fund *(CEPF - a joint initiative of l'Agence Française de Développement, Conservation International, the Global Environment Facility, the Government of Japan, the John D. and Catherine T. MacArthur Foundation and the World Bank)*
Conservation International (CI)
The John D. and Catherine T. MacArthur Foundation (MacArthur Foundation)

World Wide Fund for Nature (WWF)
The International Union for Conservation of Nature (IUCN)
International Technical Assistance Program of the United States Department of Interior (USDOI-ITAP)
Transboundary Joint Secretariat for the Southern Caucasus (TJS)
Michael Succow Foundation for the Protection of Nature
Caucasus Protected Areas Fund (CPAF) / Caucasus Nature Fund

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