National Capacity Self-Assessment for Global Environmental Protection

THEMATIC PROFILE
Review of the Situation in the Field of
Conservation and Sustainable Use of Biodiversity

Draft

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Preamble

Conservation of biodiversity and sustainable use of its components is one of the major global problems of the mankind. Diversity of genes, species, populations and ecosystems is the biological underpinning of the global economy and human well being; they provide the goods and services that make life on the earth possible and satisfy the needs of human society. Though each individual loss to biodiversity may appear trivial when viewed on its own, cumulatively it diminishes the capacity of the global environment to respond to changes.

Many natural processes will be affected if biodiversity loss continues. Changes in ecosystems often involve changes in production patterns to such an extent that food security can be threatened. Biological resources depletion resulting from their unsustainable use may involve land degradation and lead to an increase in poverty, particularly in rural areas. On a national scale, this could result in a decrease in revenue generation and subsequently, in a decrease in gross domestic product.

In order to provide conservation of the biological diversity at a global level, the Convention on Biological Diversity was elaborated and consequently signed by the Parties at the UN Conference on the Environment and Development held in Rio de Janeiro (Brazil) in 1992. Georgia joined the Convention in 1994.

The supreme goal of the Convention on Biological Diversity is to provide conservation and sustainable use of biodiversity for the well being of present and future generations. The Convention recognizes that preservation of the biological diversity is the common task of the mankind; it also stresses the necessity for implementing preliminary measures on preventing biodiversity loss.

This document has been prepared within the framework of the initial stage of the project on measures over strengthening Georgia's capacity building for global environmental protection[1]. It aims at reviewing the capacities of Georgia at systemic, institutional and individual levels[2], as well as revealing the needs for capacity building. Accordingly, the document reflects the challenges and achievements existing in the field of conservation and sustainable use of biodiversity in Georgia. It analyses how Georgia meets the commitments before the Convention on Biodiversity and defines the major guidelines of the Convention, the fulfillment of which should be preceded by capacity building in Georgia.

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[1] Self-assessment of needs for capacity building implies definition of priorities in the field of regulation, conservation and sustainable use of biodiversity, as well as identification of those factors, which hamper the increase of potential in this field. Proceeding from the last factor, the strategy for capacity building in the field of biodiversity will be developed.
[2] See explanations about capacity building at systemic, institutional and individual levels in box 1.

The problems and deficiencies existing in the field of conservation and sustainable use of biodiversity are closely linked with the political, social and economic situation in the country, ineffective institutional system and state administration, incorrect distribution of obligations and powers among the departments with frequent overshadowing the competences, as well as inefficient management of organizations and ineffective use of human resources. From this point of view, this document gives information about the recent political and socio-economic developments in Georgia, discusses the problems of state finances and administration in the country, reviews the spheres of competence, as well as the capacities of various state departments and scientific organizations responsible for research, conservation and sustainable use of biodiversity, analyzes the problems of coordination and cooperation among these organizations and integration of the biodiversity issues in the development plans and programs of various sectors. The document also gives information about raising public awareness in the field of conservation and sustainable use of biodiversity.

The document reviews the current legislative base of Georgia in the field of biodiversity, as well as the economic incentives; it reveals key problems and provides the assessment of their efficiency to ensure conservation and sustainable use of biological resources.

The document reflects the problems existing in the field of biodiversity monitoring. It also provides information about the activities of governmental, academic and non-governmental organizations in the field of biodiversity, as well as about their capacities at institutional and individual levels.

In order to prepare a thematic review over the current situation in the field of conservation and sustainable use of biodiversity of Georgia, the documentary materials (state strategies, plans of actions, expert assessments, thematic surveys, etc.) were analyzed, the representatives of various state and scientific organizations were interviewed.

The submitted thematic material is not secured against particular deficiencies. The group involved in the preparation of the document will be rather grateful to receive any remarks and recommendations that will promote further perfection of the document.

Box 1: What is meant by the term "Capacity Building"?

The term "capacity building" is used in many contexts, often with little reflection regarding its meaning. Over the last few years experts from many countries have been moving towards a common definition of the term and there is now general agreement that "capacity building" can be taken as "the actions needed to enhance the ability of individuals, institutions and systems to make and implement decisions and perform functions in an effective, efficient and sustainable manner".

At the *individual* level, capacity building refers to the process of changing attitudes and behaviors, most frequently through imparting knowledge and developing skills through training. However it also involves learning by doing, participation, ownership, and processes associated with increasing performance through changes in management, motivation, morale, and levels of accountability and responsibility.

Capacity building at the *institutional* level focuses on overall organizational performance and functioning capabilities, as well as the ability of an organization to adapt to change. It aims to develop the institution as a total system, including its constituent individuals and groups, as well as its relationship to the outside. In addition to improvements in physical assets, such as infrastructure, institutional capacity building involves clarification of missions, structures, responsibilities, accountabilities and reporting lines, changes in procedures and communications, and changes in the deployment of human resources.

At the *systemic* level capacity building is concerned with the creation of "enabling environments", i.e. the overall policy, economic, regulatory, and accountability frameworks within which institutions and individuals operate. Relationships and processes between institutions, both formal and informal, as well as their mandates, are important.

Capacity building can occur at local, national, or global levels and amongst any individual or group of stakeholders – individuals, entities or institutions, as well as at an overall systems level.

Interactions between the different levels are also important to overall capacity. Capacity is relevant in both the short term (for example, the ability to address an immediate problem) and the long term (the ability to create an environment in which particular changes will take place).

Capacity may imply "action", or "inaction", depending on the result desired. Capacity building does not always involve the creation of new capacity, but often the redeployment or release of latent capacities.

Box 2. Capacity Assessment Matrix

Capacity building at systemic level	Capacity building at institutional level	Capacity building at individual level
Social-economic and political framework: Is general social-economic and political framework expedient?	*Mission/Strategic management:* Do the institutions have clear, well-acknowledged mission and powers?	*Functions and professional level:* Are the functions well defined and are there such specialists, whose professional level meets the requirements?
Legislative and normative base: Is relevant legislation available and are laws enforced effectively?	*Culture/Structure/Jurisdiction:* Is the structure of organizations and their management effective?	*Training/Retraining:* Does the relevant educational procedures take place?
Accountability of administration: Are the powers of organizations clearly defined and are various organizations responsible to the society?	*Processes:* How effective are various processes at the organizations, including planning, quality management, monitoring and assessment?	*Professional growth:* Have the employees an opportunity to increase their professionalism?
Economic framework: Is the market acting effectively?	*Human resources:* Do human resources meet the existing requirements, how skilled are they and how effective the staff recruitment process is?	*Accountability/Ethics:* How effectively is the responsibility distributed among employees and what is the degree of their responsibility for meeting the commitments?
Resources at systemic level: Are the necessary human, financial and information resources available? (It regards the central and local government bodies, private and public organizations, including non-governmental organizations).	*Financial resources:* Is the financial resource management process effective? Are these resources distributed properly to ensure efficient activities?	*Personal/professional contacts:* Have the employees close relations and do they exchange professional experience and knowledge? *Availability of information:* Is the necessary information available?
Processes and relations: Is mutual cooperation and interaction of various institutions effective? (central and local government bodies, private and public organizations)	*Information resources:* Is the information necessary for further activities available? Is this information spread and managed effectively?	*Material incentives, material welfare:* Are there any measures implemented to stimulate best practices? *Efficiency of activities:* How effective is the estimation n of activities?
	Infrastructure: Is the infrastructure, including buildings, offices, transportation, and computers distributed and used rationally?	*Relationship and collective activities:* How effective are the relations among the employees. Are they consolidated in functional groups? Is the level of mutual relations high enough?

Chapter 1. Biodiversity of Georgia, Convention on Biological Diversity and the Cartagena Protocol on Biosafety

1.1. Biodiversity of Georgia

Georgia is one of the richest countries in biodiversity. Georgia's biodiversity is of vital importance from national, as well as regional and global points of view.

Global Importance

Georgia's biodiversity is very important in the global context – according to the surveys and assessments conducted at an international level Georgia, as a part of the Caucasus, is recognized as:
1) One out of 25 biologically richest and endangered land ecosystems (Conservation International);
2) One out of 200 vulnerable ecoregions (WWF);
3) One out of 221 endemic bird habitats (Bird Life International);
4) One of the World Agrobiodiversity Centers.

The assessments are based on the number of species spread in the country and the region, the percentage ratio against the territory, the number of globally vulnerable and rare species, the number of endemic species, genetic diversity and variety of ecosystems.

Several ecosystems of Georgia have been granted an international status of global importance. These ecosystems are: 1) Two wetlands of international importance and several candidates (or the Ramsar Sites); 2) Important Bird Areas (IBA) for 31 species.

Regional Importance

The regional importance of Georgia's biodiversity is quite clear due to its geographical location in the Caucasus (bio-geographical cross-road) – Georgia's ecosystems include the species and their habitats, which are characteristic for Europe, North Africa, Near East and Central Asia. Georgia represents the western, eastern and northern border of spread of many species. At the same time, main part of the area, where the Caucasian endemic species and their populations are spread, is located on the territory of Georgia. Moreover, a great part of Georgia's protected areas (approximately 60% of the total area) has a transboundary location that marks at their regional importance.

National Importance

Georgia's biodiversity is of great national importance as well. The majority of the population and almost all the branches of economics and social sphere depend on natural resources and services of ecosystems – forests and forest resources, cattle-breeding and land use, energy, health care and recreation, tourism, irrigation and water supply, food industry (fish industry) – the development of these branches is directly connected with consumption of natural resources and biological diversity and preservation of healthy environment.

During past decade Georgia's biodiversity has significantly decreased. This is connected with anthropogenic and natural factors, such as **loss of habitats, fragmentation and degradation, illegal hunting and fishing, introduction of alien species, unsustainable use of biological resources and climate changes.**

1.2. The objectives of the Convention on Biological Diversity and the commitments defined by the Convention

The Convention on Biological Diversity was submitted to the Parties for signing at the UN Environment and Development Conference in Rio de Janeiro in 1992. It was put into force on 29 December 1993 – after being ratified by 30 states. Now there are 187 Parties to the Convention. Georgia joined the Convention on Biological Diversity in 1994.

The Convention on Biological Diversity is a framework environmental convention, which regards all the components of biodiversity – variety of species, genetic differences within each species and variety of ecosystems.

The objectives of the Convention on Biological Diversity are as follows:
- The conservation of biological diversity;
- The sustainable use of its components;
- A fair and equitable sharing of benefits arising from the utilization of genetic resources.

The Convention on Biological Diversity is the first global agreement, which, along with biodiversity conservation, necessitates the sustainable use of biological resources.

Along with global goals for biodiversity conservation, the Convention on Biological Diversity reflects the ways for achieving these goals, defines the commitments of Parties, establishes the mechanisms for technical and financial cooperation among the Parties.

To achieve global goals defined by the Convention on Biological Diversity, each Contracting Party shall:
- Develop national strategies, plans or programs for the conservation and sustainable use of biological diversity and integrate them into relevant sectoral or cross-sectoral plans, programs and policies;
- Identify components of biological diversity important for its conservation and sustainable use. These components should be defined and monitored at a level of ecosystems and habitats, species and populations;
- Establish a system of protected areas and promote environmentally sound and sustainable development in areas adjacent to protected areas;
- Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species;
- Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health;
- Prevent the introduction of those alien species which threaten ecosystems, habitats or species;
- Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects;
- Create conditions to facilitate access to genetic resources and provide sharing in a fair and equitable way the benefits arising from the commercial and other utilization of genetic resources;
- Create and enforce national legislation aimed at conserving endangered species and populations;
- Encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of this Convention.

- Create conditions for conservation and sustainable use of biological resources;
- Promote educational activities and raising of public awareness regarding the necessity of conservation and sustainable use of biodiversity;
- Facilitate the exchange of information and promote technical and scientific cooperation with other Contracting Parties;
- Submit national reports on implementation of the Convention at a national level.

1.3. Cartagena Protocol on Biosafety to the Convention on Biological Diversity and the commitments defined by the Protocol

On 29 January 2000 the Parties signed the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, which was put into force in 2003. Georgia has not signed the Cartagena Protocol. However, the Government of Georgia plans to join the Protocol in the near future.

The Protocol is to ensure an adequate level of protection in the field of handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health. To achieve this goal:

a) Parties may enter into bilateral, regional and multilateral agreements and arrangements regarding intentional transboundary movements of living modified organisms;

b) Parties shall exchange scientific, technical, ecological or legal information and experience through the Biosafety Clearing-House. It will make the information submitted by the Parties available.

The Parties shall cooperate in the development and/or strengthening of human resources and institutional capacities in biosafety, including biotechnology to the extent that it is required for biosafety, for the purpose of the effective implementation of this Protocol. The Parties shall also promote the raising of public awareness and education, as well as the public participation in the use, handling and transboundary movement of living modified organisms, and finally in decision-making.

Measures based on risk assessment shall be imposed to the extent necessary to prevent adverse effects of the living modified organisms on the conservation and sustainable use of biological diversity, taking also into account risks to human health, within the territory of the Party of import. The Parties shall establish and maintain appropriate mechanisms, measures and strategies to regulate, manage and control risks identified in the risk assessment provisions of this Protocol associated with the use, handling and transboundary movement of living modified organisms. The Parties shall also implement necessary legislative, administrative and other measures for the purpose of the effective implementation of the Cartagena Protocol.

1.4. Achievements of Georgia in the fulfillment of the guidelines defined by the Convention on Biological Diversity and Its Cartagena Protocol

Georgia has implemented a number of measures on fulfillment of the guidelines defined by the Convention on Biological Diversity, in particular:

- A number of national legislative acts has been adopted in the field of conservation and sustainable use of biodiversity since 1996[3];
- The country acceded the most important international treaties on biodiversity, such as Convention on Wetlands of International Importance, Especially as Waterfowl Habitat, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention);
- Georgia conducted biodiversity assessment studies (National Biodiversity Assessment Program, UNEP, 1996);
- Strategy and draft plan of actions for conservation of Georgia's biological diversity were elaborated;
- With the financial support of the German Government and the Global Environment Facility (GEF), the Protected Areas - the Borjomi-Kharagauli and the Kolkheti National Parks were established;
- With the support of the Global Environment Facility (GEF), the Project on Development of Protected Areas in Georgia is being implemented. The aim of the project is to elaborate management plans for three protected areas in eastern Georgia (Lagodekhi, Vashlovani and Tusheti), to develop infrastructure necessary for their effective management and to strengthen the State Department for Reserves and Hunting Areas in terms of improving skills for protected areas management;
- Under the guidance of the Ministry of the Environment and Natural Resources and with the financial support of UNEP/GEF, the Project on Development of National Biosafety System of Georgia is being implemented[4]. The project envisages elaboration of the national legislative base, oriented to regulation and control of genetically modified organisms, including their transboundary movement. Elaboration of the national legislative base will promote the acceleration of ratification of the Cartagena Protocol of Biosafety.

Along with the above-mentioned measures, Georgia has implemented a number of legislative and institutional changes, scientific researches, public awareness and investment measures. The implementation of these measures requires mobilization and effective use of human, financial and technical resources. The document further discusses the resources and capacities of Georgia in this regard.

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[3] Detailed information about the mentioned national legislative acts is given in Chapter 2 of the document.
[4] Project duration is 18 months and will end in March 2004.

Chapter 2. Assessment of capacities in the field of conservation and sustainable use of biodiversity at a systemic level

The effective settlement of environmental, including biodiversity, problems, the efficient work of separate individuals and institutions involved in the field of environmental protection, is closely connected with the current political, economic, social and financial issues, as well as with state planning, management and administration, accountability of the institutions to the society. The document below discusses the problems existing in the above-mentioned fields.

2.1. Political-economic framework

The early 1990-ies were rather important for Georgia due to numerous political-economic and social changes. In 1991 the country declared political independence from the Soviet Union. Establishment of market economy and democratic society has become a supreme goal for construction of an independent state. However, due to internal or external political factors, from the very beginning of its independence the country faced disorders, civil war and ethnic conflicts in South Ossetia and Abkhazia.

Unfavorable political environment, as well as breaking long-established economic ties with former Soviet countries, significantly hampered the country's development. Georgia was one of those former Soviet countries, which suffered the greatest economic collapse. In 1991-94 the country's gross domestic product (GDP) decreased by 70-75%. Economic collapse, conflicts and mass displacement of population[5] from the conflict areas triggered deterioration of social conditions, poverty and unemployment.

By the middle of the nineties Georgia managed to establish peace in the greatest part of the country[6], as well as to achieve certain political stability and improve public order. Political stabilization laid down the foundation of wider institutional and economic reforms. Since 1994, through the support of international financial organizations, the Georgian authorities started to implement the anti-crisis program on macroeconomic stabilization and systemic changes. Transformation of monetary and budgetary fields, acceleration of privatization, reformation of health care, education and social fields, as well as liberalization of economic activities, trade and prices were the basic trends addressed by the authorities.

As a result of implementing the measures within the frames of the program, positive tendencies of macroeconomic stabilization were revealed. National currency was introduced and the problems connected with hyperinflation were settled. Macroeconomic stabilization was followed by growth of economic activity. However, the country failed to successfully continue political-economic, social and institutional reforms, to create conditions for stable economic growth and fair sharing of benefits gained from economic development. Corruption in the state agencies, as well as weak governance has become the key factor that hampered the implementation of the reforms in the country.

In the late nineties the poverty level increased in Georgia – 51,8% of entire population lived below the poverty line in 2000. By 2002 GDP was 1 640 Lari (USD 748) per capita. The country failed to achieve budgetary efficiency, transparency and fair sharing of resources.

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[5] Presently over 250 000 internally displaced persons live in Georgia
[6] Despite cease-fire, the problem of ethnic and political confrontation is still unsettled in Abkhazia and South Ossetia. These two regions are not under control of Georgia's central authorities.

Table 1. Several macroeconomic parameters (1996-2002)

	1996	1997	1998	1999	2000	2001	2002
Nominal GDP (ml Lari))	3846.6	4638.1	5040.2	5664.9	6012.7	6637.8	7457.1
GDP per capita (Lari)	833.9	1009.3	1094.7	1228.9	1301.1	1448.7	1640.3
GDP per capita (USD)	660.0	777.5	786.6	615.1	658.8	698.7	748.0
GDP growth (%), 1996=100	X	110.6	102.9	103.0	101.9	104.7	105.6
Consumer price index	39.4	7.1	3.6	19.1	4.0	4.7	5.6
Exchange rate (GEL against USD)	1.26	1.30	1.40	2.02	1.30	2.07	2.19
Tax revenues of consolidated budget[7] against GDP, %	7.7	10.4	10.0	11.4	11.6	14.4	14.1
Tax revenues of the state budget[8] against GDP, %	5.0	7.6	6.5	7.3	7.3	9.5	10.1

Source: The State Department for Statistics of Georgia

On the background of political, economic and social conditions, the so-called "rose revolution" took place in Georgia in November 2003, as a result of which the previous authorities were peacefully ousted on November 23. New political force, which came to power through democratic elections, launched reforms oriented to human rights, democratic governance and market economy. In case of success, the first positive results of these reforms will be achieved within several years. Currently, general situation is still unstable due to the non-settled political problems in breakaway Abkhazia and South Ossetia and the gap between the social requirements of the population and the capacity to meet these requirements from legal, administrative and governance points of view.

2.2. State planning in the field of biodiversity and integration of biodiversity conservation in the sectoral development plans and programs

To achieve global goals defined by the Convention on Biological Diversity, each Contracting Party shall develop national strategies, plans or programs for the conservation and sustainable use of biological diversity and integrate them into relevant sectoral or cross-sectoral plans, programs and policies. From this point of view, the document further discusses the problems of planning in the field of conservation and sustainable use of biodiversity.

2.2.1. National Biodiversity Strategy and Action Plan of Georgia

Development of the National Biodiversity Strategy and Action Plan is of vital importance for conservation and sustainable use of biological diversity in the country. This measure is also defined by the Convention on Biological Diversity.

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[7] The consolidated budget unites the central budget, special state funds and local budgets.
[8] The state budget includes the central budget and special state funds.

Since 1998 Georgia has been working over the draft National Biodiversity Strategy and Action Plan with the support of the World Bank (WB) and the Global Environment Facility (GEF). Unfortunately, the draft document has not been accomplished yet to be discussed by the parties concerned until final submission to the government for approval. The document defines the key trends of biodiversity:

- Protected areas;
- Species and habitats;
- Agrobiodiversity;
- Hunting and fishing;
- Monitoring;
- Biotechnology and biosafety;
- Environmental education, public awareness and public participation;
- Economic instruments;
- Legislative and institutional aspects;
- Sustainable forestry.

The experience in the development of the Biodiversity Strategy and Action Plan, as well as the results achieved, confirm that the knowledge and experience of effective strategic planning, including in the field of biodiversity, is limited in the country.

One of the key problems revealed while developing the document is ineffective planning and weak coordination of activities. The Ministry of the Environmental Protection and Natural Resources (as a coordinating body) failed to provide efficient planning and coordination of the process. Basically the non-governmental organizations and scientific workers worked over the development of the document. However, their activities were non-systemic.

The second important problem is related to the lack of knowledge about those approaches and methods, which are widely used by the leading countries in the field of biodiversity conservation and sustainable use planning. While developing the National Biodiversity Strategy and Action Plan, the following approaches and methods were less used: reveal of those factors which threaten biodiversity; assessment and prioritization of danger and reveal root causes of danger; definition of effective and cost efficient measures over eradication of these causes; assessment of necessary resources, including financial and human, for implementation of these measures; time-planning of actions, etc. Hence, the logical link between the existing danger and the planned actions is weak, on the one hand, and on the other, it does not seem that the actions included in the document reflect the real priorities set by the county in the field of biodiversity, including the capacities for their implementation.

Despite the above-mentioned deficiencies, it should be noted, that the process of development of the National Biodiversity Strategy and Action Plan has significantly promoted the capacity building of participating institutions and individuals in terms of planning, cooperation and exchange of information. This would be impossible without foreign financing. The experience gained from the development of the document lays the foundation for further improvements in this direction.

2.2.2 Integration of biodiversity issues into various environmental fields and economic development plans

The issues of conservation and sustainable use of biodiversity are directly connected with various sectors, such as energy, agriculture, industry, tourism, etc. Accordingly, to provide conservation and sustainable use of biodiversity, it is necessary to ingrate the Biodiversity Strategy and Action Plan into sectoral and cross-sectoral plans or programs, as defined by the Convention on Biological Diversity.

Georgia has already adopted several documents in the fields of environmental protection and economic development, which envisage separate measures on conservation and sustainable use of biodiversity. These measures are as follows:

- National Action Plan on Environmental Protection (ratified in 2000);
- National Action Plan on Combating Desertification (ratified in 2003);
- Poverty Reduction and Economic Growth Program (ratified in 2003);
- Strategy on Sustainable Agricultural Development and Food Safety (project is already prepared);
- Indicative plan for social-economic development for 2001-2005 years.

However, the level of practical implementation of the measures on conservation and sustainable use of biodiversity defined in the above-mentioned documents is extremely low due to lack of state financing. Basically those measures are implemented, which get funding from external sources. The process of planning also faces particular problems. The current capacities of the country in terms of elaboration of realizable strategies, programs and plans are too weak. This is basically caused by:

- Disagreement among the concerned parties over the long-term goals and priorities of development;
- Lack of experts with long-term planning and policy elaboration traditions and relevant knowledge and skills;
- Weakness of communications, interaction and coordination among the governmental organizations;
- Lack of really available financial, technical and human resources necessary for implementation of the plans.

2.2.3. *Public participation in environmental planning*

Generally, public participation in the country's development strategies and branch development programs and plans has not a long tradition. The first steps in this direction are just being taken. Particular progress is observed regarding public participation in planning and decision-making processes, that is stipulated by several factors, particularly:

- Elaboration of environmental strategies and plans is basically funded through international sources and as a rule, the investors demand public participation in the planning processes;
- Non-governmental sector has significantly developed and strengthened in the field of environmental protection within past years; along with the participation of the non-governmental organizations in elaboration of several environmental strategies and plans, they played a leading role in preparation of such documents as the National Black Sea Protection Program, the Biodiversity Conservation Strategy and Action Plan, the Program on Combating Desertification;
- For past years Georgia has joined international multilateral agreements; the legislative acts were also adopted (law on assessment of environmental impact, 1996), the Orhus Convention on accessibility of ecological information, public participation in decision-making and availability of justice related issues, which provides public participation in the decision-making processes.

Despite positive changes the public participation, possibility and capacity to contribute and influence the decision-making process is still limited. Public participation in the decision-making process is often influenced by the circumstance that public awareness regarding this or that issue is too low, or the society is not acquainted with the established procedures of the decision-making process[9].

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[9] The National Assessment Report on Sustainable Development, 2002

2.2.4. Planning at the local government level

The Georgian legislation[10] entitles the local government and self-government bodies to elaborate and implement the social-economic development programs. Particular laws in the field of environmental protection, including the laws on environmental protection, water and atmospheric air protection, wildlife, forest code entitle the local government and self-government to elaborate and implement the local action plans for environmental protection, as well as programs and measures on solution of various environmental problems. However, really systemic planning of social-economic development at local levels does not take place. Up to present not a single administrative territorial unit (region) or local government body has elaborated the environmental action plan. This can be explained by the fact that the opportunities and the demand for program, systemic approach towards settlement of problems is much weak at local levels.

2.2.5. Land use planning and biodiversity

Land management issues are closely linked with conservation and sustainable use of biological diversity. During the transition to a market economy particular changes were made in the field of land ownership and management; however many issues still remain unsettled and the relevant institutional capacities undeveloped.

Agricultural lands. Agricultural lands occupy almost 43% (30 thousand km^2) of the territory of Georgia. During past years the program on privatization of agricultural lands is being implemented in Georgia. Currently approximately 30% of these lands are private. This process may entail several negative results regarding the biodiversity: 1) Accounting and state control of consumption of pesticides and other chemicals has become complicated. This may trigger increase in the pollution of both lands and rivers; 2) Disruption of irrigation systems and non-adjustment of management and ownership systems may lead to unsustainable use of water resources; 3) Agrobiodiversity may be endangered. Although, particular programs on settlement of these problems are being implemented in Georgia with the support of international financial organizations, a systemic approach towards this issue at a public policy level does not exist so far. Public policy in the field of biodiversity conservation regarding private agricultural lands is not clearly defined (incentives for farmers, land redemption or other mechanisms).

Non-agricultural lands. Non-agricultural lands occupy approximately 47% (40 thousand km^2) of the territory of Georgia. This category includes forests, glades (including pastures and hay lands) and wetlands. Ownership and management of non-agricultural lands is dispersed among various agencies both at central and local levels. There exists no public policy and approaches over use of these lands. Particular categories, such as pastures, forestry, hunting areas and protected territories, are granted to this or that territory without any criteria. Such approaches may increase the most important danger of biodiversity, such as loss of habitats, degradation and fragmentation.

The Georgian legislation definitely regulates the issues of biodiversity conservation on the protected areas, however the issue of creation of the state management system for biodiversity conservation outside the protected areas is also rather important. There exists no public policy in this direction, while the management issues are dispersed among various legislative acts.

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[10] The organic law of Georgia on local government and self-government (1997)

Due to a number of deficiencies existing in the current legislation over land use planning and institutional system, conflict situations often arise at making decisions over land use. For example, the conflict situation persists at the Kulevi terminal, which is a protected area (Ramsar Site) on the one hand, and where the construction of the oil terminal is planned, on the other. The situation is similar in the Lagodekhi Conservation, where the construction of a hydropower plant is planned. Pasture management is also connected with the land management issues – as known, in high mountain regions one of the key reasons for biodiversity loss is overpasture.

One of the major problems of land management is correct distribution of functions among various departments. Functions are often overshadowed among various departments, such as the Ministry of the Environmental and Natural Resources, the Forestry Department, the Department for Protected Areas, the Ministry of Infrastructure, the Ministry of Agriculture and Food and the Land Management Department[11].

2.3. Financial resources

2.3.1. State Finances

One of the basic factors that hampers Georgia's state development and triggers social-economic problems is extremely low level of mobilization of revenues in the state budget. For past years state revenues[12] were only 10.6-12.9% of GDP, while expenditures were 13.7-16.0%. With regard to the consolidated state budget, which unites state and local budgets, this parameter was 12.9-16.3% and 18.8-20.6% respectively. According to these parameters, Georgia takes one of the last places in EIT[13]. Salaries and social transfers amount to 40% of entire state expenditures. However, the government still fails to pay the salaries and pensions of the state employees duly[14]. The budgetary backlog is basically covered at the expense of credits of international financial organizations (World Bank, International Monetary Fund), state property privatization, the National Bank's loans and the grants of donor countries. The foreign debt, accumulated by the country during the first years of its political and economic independence, is one of the key problems of Georgia. By 2002 total foreign debt of Georgia amounted to USD 1 592.6 million, i.e. 47.4% of GDP. If the agreement is not reached with the creditor countries over debt restructuring, the volume of the foreign debt service will be approximately 10% of production of goods and services and 30% of state budget revenues[15].

Table 2. State Finances 1996 – 2002

	1996	1997	1998	1999	2000	2001	2002
State Budget							
Revenues and grants, ml. Lari	497.2	593.2	621.9	650.2	639.4	740.3	796.7
Expenditures, ml. Lari	643.1	776.8	797.3	904.8	833.9	906.4	1049.4

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[11] During preparation of this document, following the structural changes in the state sector of Georgia, the State Department for Protected Areas, Conservations and Hunting Economies and the State Forestry Department merged with the Ministry of the Environmental Protection and Natural Resources. The Ministry plans to implement important structural reorganization. However, the functions of separate departments of the Ministry and the issues of their composition are not defined yet. Hence, we use the information and analysis prepared at the initial stage of elaboration of the document.
[12] The state budget includes the central budget and special state funds.
[13] The ratio of state revenues against GDP for NIS is 28%, and 40% for Central and Eastern European Countries.
[14] Salary of a state employee is GEL 58.5 per month, pension – GEL 14 per month (source: the Economic Trends of Georgia, quarterly review, 2003, N1. The Georgian-European Center for Economic Policy and Legal Issues).
[15] ** Georgia: IMF Country Report No. 02/261, IMF 2002.

Revenues against GDP, %	12.9	12.8	12.3	11.5	10.6	11.2	10.7
Expenditures against GDP, %	16.7	16.7	15.8	16.0	13.9	13.7	14.1
Consolidated state budget							
Revenues and grants of the consolidated budget, ml. Lari	497.2	723.9	771.4	879.0	919.5	1082.1	1157.0
Expenditures of the consolidated budget, total, ml. Lari	772.3	929.5	1038.9	1146.5	1135.8	1260.2	1401.8
Revenues against GDP, %	12.9	15.6	15.3	15.5	15.3	16.3	15.5
Expenditures against GDP, %	20.1	20.0	20.6	20.2	18.9	19.0	18.8

Source: the State Department for Statistics of Georgia.

One of the key reasons for low level of tax revenues is weak tax administration, corruption in the state and especially tax agencies and large scales of shadow economy. According to the statistical surveys, a share of shadow economy in the entire production of goods is 40-42%[16].

Scarcity of state financial resources considerably hampers the implementation of reforms in political, social-economic and state administration fields and the purposeful struggle against poverty. It also hinders the effective functioning of state institutions and promotes corruption, thus blocking the development of business and attraction of investments and creating the unfavorable social and economic background[17].

The new authorities of Georgia have already taken particular steps towards legalizing shadow economy and tackling corruption. However, time is needed to achieve significant results in this direction.

2.3.2. Financing Environmental Management

Internal financing

Funding of the environmental field from the state budget is rather scarce. According to the Finance Ministry's data (table 3), for past four years the environmental expenditures of the state budget fluctuated within GEL 1.7-3.8 million, i.e. 0.2-0.36% of the total budgetary expenditures.

In 2002 the state budget allocated GEL 0.81m (below USD 0.4m) to the Ministry of the Environmental Protection and Natural Resources (table 4). The greatest share of these funds (87%) was expended on distribution of salaries to the employees of various structures subordinated to the Ministry (regional services, laboratories and research institutes). Only GEL 0.2 ml, i.e. 25% was directed to the purpose-oriented environmental projects of the Ministry (Out of 12 purpose-oriented projects submitted by the Ministry only 5 were funded from the state budget partly).

Table 3. Environmental budgetary expenditures for 1997-2002 (million Lari)

	1997	**1998**	**1999**	**2000**	**2001**	**2002**
Expenditures of the central state budget	776.8	797.3	904.8	833.9	906.4	1049.4
Environmental expenditures	3.4	15	2.7	1.7	2.3	3.8

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[16] The Program on Poverty Reduction and Economic Growth of Georgia, 2003.
[17] The Program on Poverty Reduction and Economic Growth of Georgia, 2003.

Share of environmental expenditures in the central state budget (%)	0.44	0.19	0.30	0.20	0.25	0.36

Source: Environmental Performance Review, Georgia, United Nations, New York and Geneva, 2003;The State Department for Statistics of Georgia.

Table 4. Funding of the Ministry of the Environmental Protection from the central state budget (million Lari)

	1997	1998	1999	2000	2001	2002
Total expenditures of the state budget (million Lari)	776.8	797.3	904.8	833.9	906.4	1049.4
Funding of the Ministry of the Environmental Protection (million Lari)	0.6080	.0673	0.8098	0.4915	0.5458	0.8107

Source: Environmental Performance Review, Georgia. United Nations, New York and Geneva, 2003; The State Department for Statistics of Georgia.

In the nineties extrabudgetary ecological funds were created in many central and eastern European countries, which aimed to ensure financial security of the environmental projects by the economies in transition. The main sources of revenues of these funds are the taxes on environmental pollution and use of natural resources. The tax on environmental pollution was imposed in Georgia in 1994, while the tax on use of natural resources has been acting since 1995. Since the budget consolidation was considered a priority for past years, as recommended by the International Monetary Fund, the Georgian government failed to establish extrabudgetary ecological funds either at central or regional levels. In 2001 over GEL 19.3 million was transferred to the local budgets due to the taxes on environmental pollution and natural resource use. However, these funds were basically spent on granting salaries to the employees of the budgetary organizations and pensioners instead of environmental programs.

Hence, the above-described analysis of the state funding in the field of environmental protection confirms that the current governmental policy is not directed towards protection of the environment. The rather limited state financial resources are used to settle the key problems, such as social welfare, defense, law-enforcement, health care, education, energy, transport and communication.

External Financing

The environmental projects in Georgia are basically funded from external sources – through the loans of international financial organizations and the grants of donor countries. According to the data of the Organization for Economic Cooperation and Development (OECD), in 2001 62% of environmental expenditures were funded from external sources[18]. During 1996-2001 total volume of committed financing to Georgia's environmental protection field from external sources amounted to USD 42 million.

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[18] *Trends in Environmental Expenditure and International Commitments for the Environment in Eastern Europe, Caucasus and Central Asia, 1996-2001.* Report submitted to the Ministerial Conference in Kiev, Ukraine, 21-23 May 2003 by the Task Force for the Implementation of the Environmental Action Program for Central and Eastern Europe (EAP Task Force) Organization for Economic Cooperation and Development.

The largest amount of external funding comes to the field of biodiversity conservation that is explained by the huge international interest in conservation of Georgia's unique biodiversity. Table 4 gives the amount of funding from external financial sources directed to the projects on development of protected areas.

A share of the Global Environmental Fund (GEF) in funding the measures on climate change and biodiversity conservation in Georgia is extremely high. The GEF funding for various measures (including technical aid) has already totaled USD 13 million.

Table 4. International financial aid granted and pledged since 1992 for the development of Georgia's protected areas.

Donor	Project name	Years of implementation	Million USD	Share %
World Wildlife Fund (WWF)	Systemic support of protected areas and subsidiary zones - Own funding - Funding from the Macarthur Fund	1992-2002	 3.3 0.3	 10.63 0.96
German Reconstruction Credit Bank (KfW)	a) Development of the Borjomi-Kharagauli National Park b) Development of a subsidiary zone of the Borjomi-Kharagauli National Park c) Eco-regional planning for the Caucasus region (Georgian part); d) Implementation of the eco-regional plan for 3 countries of the Caucasus (Georgian part);	1998-2002 Continued since 1998 Continued since 2002	2.4* 6.7 0.48 1.5	7.73 21.59 1.54 4.83
Global Environmental Fund (GEF)	a) Development of the Kolkheti National Park b) Development of the protected areas in Georgia (protected areas of Vashlovani, Lagodekhi and Tusheti) g) Protection of arid and half-arid ecosystems	1998-2005 Continued since 2002 1999-2002	3.3 8.5 0.75	10.63 27.39 2.25
Critical Ecosystems Protection Fund (CEPF)	Georgian part of the Caucasian eco-region (allocation of USD 10m is pledged for 7 countries)	Pledged since 2003	1.5	4.83
U.S. Government	Development of protected areas in Georgia	Continued since 2002	0.8	2.58
Japanese Government	Development of a subsidiary zone of the Kolkheti National Park	Pledged since 2003	1.5	4.83
Total			**31.03**	**100.0**

* Funding through WWF

2.3.4. Financial markets and investment opportunities

The rates of Georgia's economic development, taking into account its intellectual potential, geographical location and natural resources, are much slow than possible. Low level of investments, especially direct foreign investments, is one of the key factors, which hampers the economic growth. Georgia suffers lack of financial resources in many sectors of economy. The country has no possibility of self-financing the industrial sector. The property of most Soviet-old enterprises includes illiquid assets, while liquid assets, such as money and equity, are rather limited. The condition of small and medium enterprises is more difficult in this regard.

Since the country has not enough financial resources, the demand for direct foreign investments is too high. The flow of investment faces a number of problems, including absence of sound financial infrastructure. The undeveloped financial system, which is not transparent, seriously hampers the attraction of investments. The financial institutions, banks and insurance companies work under high risk conditions in Georgia. Accordingly, loan rates are too high in Georgia. Hence, finding the money for implementation of new projects or business operations is more expensive in Georgia than in the developed countries. Georgian commercial banks grant short-term credits (a maximal term is 5 years), volume of loan is limited (maximal volume of loan is USD 1 million), while interest rate is rather high – annual interest rate is 18-36% (according to the peculiarity and risk level of the project). Such harsh credit conditions hinder medium and large-scale investments, which brings profit in a long-term period.

2.4. National legislation in the field of biodiversity conservation and its enforcement

The principles and commitments defined by the Convention on Biological Diversity, as well as by other international conventions and agreements should be reflected in the national legislation of the Parties to the Convention. One of the key conditions for meeting the Convention commitments at a national level is the existence of perfect national legislative base.

Georgia has developed and adopted a number of laws on conservation and sustainable use of biodiversity. The laws given below are directly related to the conservation and sustainable use of biodiversity:
- The Law on Environmental Protection (1995);
- The Law on Protection of Plants against Harmful Substances (1994);
- The Law on the System of Protected Areas (1996);
- The Law of Georgia on Environmental Permits (1996);
- The Law on the State Ecological Expertise (1996);
- The Law on Wildlife (1996);
- The Law on the Red List and the Red Book of Georgia (2003);
- The Law on Water (1997);
- The Forest Code (1999);
- The Tax Code (1997);
- The Code on Administrative Violations (1984);
- The Criminal Code of Georgia.

The country has also adopted the laws, which regulate the issues of management of particular protected areas, including the Kolkheti National Park, the Protected Areas of Tusheti, Batsara-Babaneuri, Lagodekhi and Vasholovani (the Law on Creation and Management of the Kolkheti Protected Area (1998), the Law on Creation and Management of the Tusheti, Batsara-Babaneuri, Lagodekhi and Vasholovani Protected Areas (2003)). The laws in the fields of agriculture, water, land and air protection are also related to the issues of biodiversity conservation. With the support of the Global Environment Facility, the Ministry of the Environmental Protection is implementing a project on the National Biosafety System Development to further develop the law oriented to regulation and control of genetically modified organisms (GMOs) and the products containing GMOs, including the transboundary movement.

There are a number of guidelines of the Convention on Biodiversity, which are not regulated by the Georgian legislation at all. There do not exist legislative and regulation acts, which should regulate separate issues defined by the Convention on Biodiversity, such as:

- Availability of genetic resources and equal and fair sharing of the profit gained through the use of genetic resources;
- Preservation and protection of traditional knowledge related to the use of biodiversity;
- Regulation and control of introduction of alien species[19];

A number of by-laws have not been elaborated yet, albeit their adoption is implied by the current laws and real enforcement of these laws is impossible without them. However, only a small part of these by-laws has been elaborated so far. There are many collisions among the current laws, duplication of functions or uncertainty of functions of the governmental organizations responsible for their enforcement. The document further gives the examples of those key problems – unsettled issues, collisions among laws, overshadowing the responsibilities of the executive authorities – which are characteristic for the legislation of Georgia in the field of conservation and sustainable use of biodiversity.

The Law of Georgia on Environmental Protection

The Law of Georgia on Environmental Protection, which represents the so-called framework law of the National Environmental Legislation, was adopted in 1996. The mentioned law set up a legal basis for the development and enforcement of a number of environmental laws and by-laws.

According to article 5 of the law on environmental protection, the governmental bodies, physical persons or legal entities (without distinction of the kinds of property or of organizational legal form) in the course of planning and implementing the activity must be guided by the basic principles of environmental protection, among which there are the principle of sustainability[20], the principle of the use of nature, requiring payment[21], the principle of preservation of biological diversity[22] and the principle of assessment of environmental impact[23].

Article 25 of the Law of Georgia on Environmental Protection defines that the use of natural resources, including forest, flora and fauna resources, is subject to licensing. The license for the use of these natural resources is granted by the Ministry of the Environmental Protection. However, the Forest Code explains this procedure differently – in particular, according to the Forest Code, the State Forestry Department grants licenses on timber forest resources, while one part of licenses on non-timber resources is granted by the Ministry of the Environmental Protection, and the other - by the State Forestry Department.

According to article 25 of the law on environmental protection, the license for the use of natural resources is granted in accordance with the established quotas for the use of natural resources. The rule

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[19] The law on wildlife prohibits introduction of alien species of fauna, while the issues of regulation and control of introduction of alien species of flora are absolutely unclear.

[20] The principle of sustainability - the use of the environment and natural resources, when human development is not endangered and the environment and natural resources are protected against the irreversible qualitative or quantitative changes;

[21] The principle of the use of nature, requiring payment - the subject of the activity is obliged to pay for the use of land, water, forest, flora, fauna and subsoil resources;

[22] The principle of preservation of biological diversity - the activity must not lead to the irreversible degradation of biological diversity

[23] The principle of assessment of environmental impact - in the course of planning and projecting the activity, the subject of the activity is obliged to take into account and evaluate the possible impacts on the environment, which may be caused by the activity

on designating the quota for the use of natural resources is defined by the regulations On the rule of establishing the quota for the use of natural resources", which is to be elaborated and approved by the Ministry of the Environmental Protection. <u>However, this regulations has not been developed so far.</u>

The Law of Georgia on the System of Protected Areas

The Law of Georgia on the System of Protected Areas is of vital importance for conservation of biological diversity. This law lays the foundation for establishing new protected areas in Georgia in conformity with international standards. The law defines the categories of protected areas, among which there are strict natural reserves (**I**)[24], national park (**II**), natural monument (**III**), state reserve (**IV**), protected landscape (**V**), territory of multi-purpose use (**VI**). Besides these categories, in Georgia it is permitted to recognize some categories of protected territories, which are included in the international network, such as biosphere reserve, the world heritage site, wetland of international importance.

The Law of Georgia on the System of Protected Areas defines the issues of establishing, developing and functioning of the Protected Areas of Georgia. It also defines the bodies responsible for creation and management of protected areas, as well as the activities permitted within the framework in the protected areas of various categories.

According to the Law, the Ministry of the Environmental Protection implements the state policy over establishing, functioning and managing the system of protected areas, while the Central Department of Protected Territories, State Reserves and Hunting Areas manages the protected areas (article 18.1). Paragraphs 2 and 3 of article 18 of the Law on the System of Protected Areas define the functions and competences of the Ministry of the Environmental Protection (article 18.2) and the Central Department of Protected Territories, State Reserves and Hunting Areas (article 18.3). The functions and competences of these two executive bodies are often overshadowed in the field of controlling the activities in the protected areas, conducting scientific researches and monitoring, implementing the works over rehabilitation of endemic species of flora and fauna vulnerable to extinction.

The procedure of interdepartmental coordination and public participation in making decisions over establishment of protected areas, elaborating and approving management plans needs perfection.

The Law of Georgia on Wildlife

Noteworthy, that even in case of perfect planning of the system of protected areas, many important species appear outside the protected areas, since the Law of Georgia on the System of Protected Areas provides only in-situ conservation of species and habitats. This problem especially regards the endemic and endangered species of flora.

One of the major legislative instruments for ex-situ conservation and sustainable use of biodiversity resources is the Law of Georgia on Wildlife, which entered into force on 1 September 1997. The law regulates legal relations in the field of conservation and use of wildlife objects. It is worth noting that under the law, the wildlife objects are state-owned in Georgia. Besides the conservation of wild fauna species, the law envisages the conservation of their habitats, migratory roads and breeding places, as well as provides sustainable use of wild fauna and creates legal base for its in-situ and ex-situ conservation.

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[24] The IUCN categories for protected areas are given in brackets.

The law defines the removal of wild fauna species from the environment, i.e. "special use" requires a special license, which is granted by the Ministry of the Environmental Protection. Under the law, except for the migratory species of birds, sport and amateur hunting is permitted only on the specially allotted areas – hunting areas. The law also defines the rules of creation of hunting areas. The sites for future hunting areas can be allotted only after the Ministry of the Environmental Protection conducts preliminary ecological, biological and economic researches, records the wildlife objects and defines the norms for the removal of fauna species.

Although the mentioned law is the major legal instrument for conservation and sustainable use of biodiversity, its perfect enforcement is not achieved. This is caused by the fact that the law implies regulation of a number of important issues through development and enforcement of 33 by-laws (article 69.2), however, only a small part of these by-laws has been developed so far. Due to absence of by-laws, a number of important issues are left outside the legal regulation sphere.

The Law on Environmental Permit and the Law on State Ecological Expertise

The laws on environmental permit and on state ecological expertise are rather important in terms of ex-situ conservation of wild flora and fauna species and their habitats.

According to the law on environmental permit, an environmental permit for performance of an activity on the territory of Georgia is issued after state ecological examination and environmental impact assessment. Environmental impact assessment (EIA) studies, reveals and describes direct or indirect effects of the activity on the biodiversity. If the environmental impact assessment or expert assessment reveals the activities, which are likely to have significant adverse' and irreversible effects on the biodiversity, this may become the ground for rejecting the activities. The activities will be permitted if they do not trigger irreversible degradation of biodiversity and if it is possible to mitigate the expected negative impact during these activities. The environmental permit is issued on condition of implementing the necessary measures on mitigation of expected negative impact. The measures on mitigating the environmental impact are as follows: conservation of habitats of species, conservation of flora and fauna species, protection of migratory roads, biotechnical measures, in case of implementation of which any possibilities of biological invasion should be excluded. The initiator of the activities is entrusted to implement these measures, while the state ecological agency will monitor their implementation.

According to article 4.4. (a) of the law on environmental permit, obtaining of plants of medicinal purpose in nature belongs to the third category of the activity, and accordingly requires environmental permit. However, the by-laws defining the rules of issuing permits on removal of wild flora species, including those with medical purpose, from the environment, have not been developed and approved yet. Hence, removal of plants of medical purpose from the environment occurs without any permits. According to the data of the State Ecological Expertise Department of the Ministry of the Environmental Protection, not a single permit has been granted on obtaining of plants of medical purpose.

The Forest Code of Georgia

The Forest Code of Georgia, which was adopted by the Parliament of Georgia in June 1999, establishes legal grounds for conducting tending, protection, rehabilitation, and use of the Georgian Forest Fund and its resources. **In terms of biodiversity conservation**, one of the key goals of the Code is to conserve the Georgian Forest Fund, to preserve untouched forests and to conserve the relict, endemic and other precious species of plants.

According to the Forest Code of Georgia, the population has the right to collect brushwood, wild fruits, berries, nuts, mushrooms, and medical plants for their personal (non-commercial) use (article 92).

According to presidential decree 64 of 1997 *On Licensed Use of Plant Resources (Forest Resources Inclusive) in Georgia*, commercial use of non-timber resources is subject to licensing. In accordance with the mentioned decree, Inter-Agency Expert Council for Licensed Use of Plant Resources in Georgia was set up under the Ministry of the Environmental Protection. The licenses granted by the Ministry were based on the decisions of the Council.

According to the Forest Code of Georgia, use of non-timber forest resources should have been carried out following the *Regulations for Use of Non-Timber Resources of the State Forest Fund"*. These regulations should have been prepared and approved by the Ministry of the Environmental Protection (article 79). The presidential decree 64 of 1997 should have been to this Code within a month from its enactment (article 118).

The above-mentioned presidential decree has not been adjusted to the Forest Code yet and accordingly, its legitimacy is suspended. Hence, there is currently no legislative mechanism in Georgia that can be used to license the removal of non-timber resources from the environment.

Because of legislative vacuum there is currently no legislative mechanism regulating the removal of non-timber resources from the environment. The Regulations for Use of Non-Timber Resources of the State Forest Fund, defined by the Forest Code, has not been developed so far.

The Law of Georgia on the Red List and the Red Book

According to the law of Georgia on environmental protection, the endangered wild animals and plants should be registered in the Red Book and the Red List of Endangered Wild Fauna and Flora Species.

Until late 2003 the Red List has not been renewed. Neither exists the renewed Red Book. Accordingly, all the decisions made were based on the outdated Red Book, published in 1982.

The new Law of Georgia on the Red List and the Red Book was adopted in 2003, which defines the structure and the rule of composition of the Red List of Georgia. According to the law, by order of the Ministry of the Environmental Protection the so-called temporary Red List was approved[25], which will be in force till 1 July 2005, until the new Red List is ratified by the presidential order.

The temporary Red List includes the following endangered species of wild flora and fauna: the species included in the Soviet old Red Book of Georgia from 1982, the species included in the annexes of the Convention on Conservation of Migratory Species and in the annexes of the agreements developed within the Convention. Obviously the temporary Red List, which is based on the old data, instead of the results of new researches, cannot reflect a real picture of the current state of Georgia's biodiversity species, as well as the threat of their extinction.

So, the country faces an acute necessity for creation of the new Red List and the Red Book reflecting a real picture of biodiversity in Georgia. However, this demands financial resources and accomplishment of thorough researches. Without creation of the renewed Red List based on scientific researches, it will be practically impossible to implement effective measures on conservation and preservation of endangered species.

The Law of Georgia on Protection of Plants against Harmful Substances

The Law of Georgia on Protection of Plants against Harmful Substances, which was adopted in 1994, aims to protect cultivated plants, pastures, hay lands and forest against harmful substances (insects, diseases, weeds). The law has a general character. It defines that production, transportation, use and storage of plant protection means should occur under relevant rules, norms and technologies. However, the government has elaborated and approved only a small part of these rules and norms so far.

The Law of Georgia on Protection of Plants against Harmful Substances sets the functions and competences of the governmental organizations in this field. Under the law, the Plant Protection Service, which is subordinated to the Ministry of the Environmental Protection, regulates, supervises, records and controls the effective use and safe consumption of plant protection means. Simultaneously, according to the Forest Code, the Ministry of Environment, the State Forestry Department and the State Department for Protected Territories, Reserves and Hunting Areas supervise and control the use of plant protection means.

Responsibility for Violation of Environmental Legislation

The responsibility for violation of environmental legislation is defined by the Code of Administrative Offences and the Criminal Code of Georgia.

The Code of Administrative Offences of Georgia

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[25] The temporary Red List includes the following endangered species of wild flora and fauna: the species included in the Soviet old Red Book of Georgia from 1982, the species included in the annexes of the Convention on Conservation of Migratory Species and in the annexes of the agreements developed within the Convention (agreement on the conservation of African-Eurasian migratory waterbirds, agreement on the conservation of cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area and agreement on the conservation of populations of European bats).

The Code of Administrative Offences of Georgia defines the activity or inactivity representing an administrative offence, the administrative penalty to be enforced by this or that body and the rules of enforcement of this penalty by administrative offender.

Chapter VII defines the administrative offences in the field of environmental protection and use of natural resources, including the conservation and sustainable use of biodiversity. It specifies the amount of fines for various offences. For example: the following offences are qualified as administrative ones: destruction or damage of forest cultures on the territories of the State Forest Fund (article 64); violation of the rules and requirements for the use of forest resources (article 65); illegal use of forest resources (article 66); destruction of rare species of animals vulnerable to extinction or such kind of activities, which may trigger the death of endangered animals, their reduction or loss of habitats; purchase-sale or capture of such species without relevant permits (article 85); violation of the rules of fishing (article 86), etc. The Code includes a great number of articles on conservation and sustainable use of biodiversity. The amount of fines for this or that offence fluctuates within GEL 50 – 70 000.

One of the main deficiencies of the current Code of Administrative Offences is that in many cases a market price of the resource obtained illegally, as well as the damage caused to the environment is much higher that a fine imposed for this offence. This does not promote the reduction of the rate of law violations. At the same time, the institutional system for withdrawal of fines is extremely complicated.

In 2001 the Ministry of the Environmental Protection submitted to the court 245 cases on administrative offences regarding illegal obtaining of flora and fauna species. The court considered only 52 cases and withdrew GEL 700 as a fine. This marks at weakness of meeting the requirements of environmental legislation and enforcement in Georgia.

The Criminal Code of Georgia

The Criminal Code of Georgia determines the grounds for criminal liability, actions, which are criminal, and establishes appropriate punishment or other measures under criminal law. Book 10 of the Criminal Code of Georgia is devoted to the rules for the protection of environment and use of natural resources.

Pollution, drainage of the bodies of water or other negative influences that can cause damage to sea ecosystems and reduce the supply of fish shall be punished by a penalty or the deprivation of liberty for a definite period, with or without the deprivation of the right to hold any position or conduct any activity (article 287, 292, 293). Illegal hunting and fishing are also considered to be criminal offences. The punishment becomes more severe if these offences were committed in the State Reserves or Protected Areas in prohibited time or place.

According to the Code, criminal charges may be brought against the activities which caused loss of habitats of endangered species vulnerable to extinction, as well as those included in the Red List of Georgia, illegal wood cutting, damage or destruction of forests or plants, violation of the regime of protected areas, that caused a significant damage.
Apparently, the legislation of Georgia may qualify one and the same activity, which causes damage to the environment, as an administrative violation or a criminal offence. There are no qualified criteria for offences that is a real problem at bringing charges or qualifying the activity.

2.4. The issues related to trade in the components of biological diversity

The Law of Georgia on Wildlife and the Convention on International Trade in Endangered Species of Flora and Fauna (CITES) regulate the international trade in wild fauna species[26].

According to the Law of Georgia on Wildlife (article 50), import, export and transit of wild fauna species requires a permit to be granted by the Ministry of the Environmental Protection only in case of fulfillment of particular conditions, one of which conditions that export should not pose danger to this particular species of wild animal.

The Law on Wildlife prohibits purchase of wild animals from those physical or legal persons, who have no license on their obtaining or any document proving the legality of their purchase. A permit on export, import and transit of endangered species of wild fauna is issued only in case if the relevant state agency is sure that a wild animal will not be used for commercial purposes.

The legislation of Georgia and the Convention on International Trade in Endangered Species (CITES) partially regulate the issues of trade in particular specimens and derivatives of wild flora species. In particular, the legislation regulates only the issues on trade in timber species (regulated by law on the rules of granting licenses and permits on business activity – article 19, paragraph 1) and wild flora species vulnerable to extinction (regulated by CITES).

The issues of trade in those species of wild flora, which are not included in the CITES appendices, are not regulated by the legislation. This is a white spot of the national environmental legislation[27].

Although there exists the above-mentioned regulation framework, the real impact of trade in wild flora and fauna and consumption patterns on the biodiversity of Georgia is unstudied. Generally, decision-makers and experts have superficial knowledge about the links among export-import policies, market structure, consumption patterns and biodiversity. The political will over conducting researches and elaborating particular policies and strategies is weak as well.

2.5. Economic instruments in the field of biodiversity conservation

Taxes on use of state-owned natural resources, including on removal of flora and fauna species from the environment have been imposed in Georgia.

Taxes on forest timber and non-timber resources

Taxes on use of state-owned forest timber resources – wood cutting for private or industrial purposes - were introduced as far back as in the Soviet period. Currently most woods of Georgia are still state-owned and the State Forestry Department is directly responsible for managing them[28]. Physical and legal persons have the right to use forest timber resources on a permit basis granted by the State Forestry Department. Since 1997, under the legislation of Georgia, the tax on use of forest timber resources belongs to the category of taxes on use of natural resources and its rate and rule of

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[26] Georgia joined CITES in 1996
[27] Only the issue of international trade in fir-tree seeds is regulated at a legislative level. The Ministry of Economy, Industry and Trade grants a license on export of this resource from Georgia.
[28] The State Department for Protected Territories, Reserves and Hunting Areas is responsible for wood resource management

withdrawal is regulated by the Tax Code (Section X. Tax on Use of Natural Resources). Tax rates depend on various parameters, such as different types of timber, trunk diameter and rating [29]. Taxes are calculated as an interest rate against the market price of timber. The price for timber types is defined by the Ministry of Economics, Industry and Trade in accordance with the recommendation of the State Forestry Department (see table 9). According to this system, tax rates on forest timber resources fluctuate from 1.4 Lari per cubic meter (for the lowest quality timber) to 102 Lari per cubic meter (for the highest quality timber).

Formerly the taxes on forest timber resources, as well as other types of taxes on use of natural resources, aim at promoting the rational and sustainable use of natural resources, and transferring funds to the state budget for financial security of natural resource reproduction and protection. However, in reality the current practice of tax withdrawal and earmarking, as well as enforcement of the laws on wood-cutting, does not significantly promote the achievement of formally declared goals:

- Tax revenues from forest timber resources are transferred to the state regional budgets; however, usually, they are not earmarked for forest resource protection and sustainable use, as well as for other environmental measures. In 2001-2002 years the total amount of taxes on use of forest timber resources transferred to the regional budgets amounted to 1.6 and 2.0 million Lari respectively. During the same years the programs of the State Forestry Department, including those on Forestry, Forest Cadastre, Protection, Rehabilitation and Use of Forests, were funded from the state budget only at GEL 140 thousand.
- Illegal timber extraction is one of the sharpest problems in Georgia. Taxes are not imposed on the illegally extracted timber.

According to the Tax Code of Georgia, tax rate on non-timber resources (plants, derivatives) is 10% against the market price of these resources. According to the Tax Code, the price for non-timber resources is defined by the Ministry of Economics, Industry and Trade under the recommendation of the State Forestry Department. However, the Georgian legislation has not yet defined market prices on non-timber resources or the rules of their calculation, with the exception of the fir-tree cones. Hence, no tax has been introduced on use of these resources so far[30].

Taxes on removal of wildlife species and fish resources from the environment

Taxes on removal of wildlife species and fish resources from the environment, i.e. taxes on hunting and fishing, have been acting in Georgia since 1 January 1998. According to the Tax Code, this type of tax also belongs to the group of taxes on use of natural resources.

Taxpayers are all physical and legal entities, whose activities, "under the law of Georgia on use of natural resources, are subjected to licensing." Amateur fishing is not subjected to licensing, while a license on commercial fishing is granted by the Ministry for Protection of the Environment and Natural Resources under the recommendation of the interdepartmental license commission for use of fish resources.

Tax rates on wildlife and fish resources are defined by interest rates against market prices of resources. Market prices are determined by the Ministry of Economy, Industry and Trade. Due to tax payment, mammals are classified into 7 various classes and tax rates are defined for each class (i.e. 55% - for

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[29] Rating is defined in accordance with the distance between the wood-cutting place and the nearest railway station. The far the distance is the less the rating is, i.e. tax on use of natural resources becomes reduced.

[30] The only exception is fir-tree cones, the export demand for which is rather high. Current price of fir-tree cones is 3,50 Lari per kilogram, while tax on cone extraction is 0,35 Lari per kilogram.

aurochs, 10% - for rabbits). Birds are classified into 4 classes, and fish – into 5 classes with relevant interest rates. Taxes for migrant birds are fixed at 5 Lari per season.

According to the tax legislation, illegal hunting and fishing is fined. Moreover, the legislation envisages compensation for environmental damage. However, currently there are no methods of damage calculation; hence no fines are really paid. The law prohibits removal of those species of flora and fauna, which are included on the IUCN Red List of Threatened Species, for private or commercial purposes. However, illegal hunting and fishing is a widespread problem in Georgia. Only a small part of the population applies to the state agencies for a license on use of fish and wildlife resources. Absence of clear rules over issuing licenses, as well as difficult tax rules, significantly promotes it.

So, in the light of the above-mentioned information it may be said that under conditions of weak law enforcement, weak administration and non-targeted use of revenues[31], the efficiency of taxes on removal of flora and fauna species from the environment in terms of stimulation of environmental protection and sustainable use of biodiversity is too low. At the same time, the fees for using the protected areas have not been introduced in Georgia so far. In many countries user fees have proven a successful mechanism for generating incomes necessary for biodiversity conservation and protected areas management.

2.6. Assessment of economic values of biodiversity components

As mentioned above, according to the Tax Code, tax on removal of flora and fauna resources from the environment is calculated as an interest rate against market price of this species. Market prices are defined by the Ministry for Protection of the Environment and Natural Resources under the recommendation of the interdepartmental license commission for use of relevant resources. However, the law does not envisage the methods to further define market prices on non-marketable species, such as bear and aurochs. At the same time, there is no law on defining the periodicity of fixed market price revision to ensure that prices on natural resources reflect the market processes, such as inflation, fluctuation of supply and demand, as well as natural processes and natural resource conditions, such as changes in natural populations, that is of crucial importance in terms of biodiversity conservation and sustainable use.

Assessment of economic values of natural resources and biodiversity is very important to promote decision-making in planning and implementation of measures on economic development or conservation. Georgia has no experience and capacities in this direction. The country lacks experts in environmental economy. The economic experts have no relevant knowledge and skills to use modern methods on determining the economic values of natural resources and biological diversity.

2.7. Information systems and monitoring in the field of biological diversity

Monitoring is rather important for assessment of a status and tendencies of various species of biodiversity. Monitoring and analysing of the obtained information are of vital importance for the development of correct policies, strategies and plans on conservation and sustainable use of biodiversity, as well as for making particular decisions. The monitoring results help schedule and implement urgent measures on survival of species, mitigation and avoiding of environmental impact. The existence of reliable information about biodiversity is necessary for preparation of international

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[31] Like other taxes on use of natural resources, taxes on removal of flora and fauna species from the environment are concentrated in local budgets and are basically earmarked for social and economic problems.

inventory and national reports, including within the framework of the Convention on Biological Diversity.

In the thirties of last century the academic institutions launched collection of data over the biodiversity of Georgia. Nature Records, issued annually, described the condition of biodiversity at the Reserves of Georgia, periodic assessments of forest resources, including timber resources and distribution of species, were taking place. Since the nineties, basically due to financial problems, the academic institutions fail to conduct researches over biodiversity and collect data systematically.

As a result of recent adoption of environmental laws, particularly the Laws on Environmental Protection, on the System of Protected Areas, on Wildlife and the Forest Code of Georgia, various governmental organizations were entrusted to conduct biodiversity monitoring. In particular:

- The Ministry of the Environmental Protection shall perform a coordinating role in the field of biodiversity monitoring[32]. The Ministry shall also coordinate wildlife cadastre[33].
- The State Forestry Department and its territorial bodies shall conduct monitoring and cadastre of the State Forest Fund within the framework of the Economic Forest Fund[34].
- The State Department for Protected Territories, Reserves and Hunting Areas shall organize biodiversity monitoring within the framework of the protected areas and conduct the protected areas cadastre[35].

The above-mentioned laws contain rather obscure regulations on monitoring. For example, under the law, the Ministry of the Environmental Protection is entrusted to provide general coordination of biodiversity monitoring, while each above-mentioned body conducts monitoring within the limits of its competence. However, the limits of this competence are not defined clearly. The laws do not define the rules and methods of conducting monitoring, the forms of accountability, mutual commitments of the bodies within the framework of the uniform system of biodiversity monitoring.

Although the current legislation commits particular governmental organizations to monitor biological diversity, these organizations fail to systematically collect data over the biodiversity components. This is basically caused by:

- Lack of skilled staff capable to create monitoring systems, including the methods for selection of indicators and observation;
- Lack of techniques and financial resources necessary for monitoring;
- Non-application of monitoring capacities at scientific institutions.

Under such conditions, information about the particular components of biological diversity is not collected by public, scientific and non-governmental organizations regularly and systematically.

The information collected by scientific and non-governmental organizations within the framework of particular projects are not systematized and used for creation of the uniform computer database on biological diversity. Consequently, the availability of information about biological diversity for interested departments and persons is limited.

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[32] The law on environmental protection (article 27), the law on the system of protected areas (article 18.2)
[33] The law on wildlife (article 59.1/2)
[34] The Forest Code of Georgia (chapter VIII, article 24, 25)
[35] The law on the system of protected areas (article 17.2)

2.8. Processes and relations between the institutions – the problems of state administration[36]

Effective continuation and further development of the social-economic and political transformations launched in Georgia in the nineties was hampered by serious state management deficiencies. Among the key deficiencies of the state management system in Georgia the following are worth noting:
- State management has no clearly defined systemic character at any level of management. Strategic management is extremely weak or does not occur at all.
- The circles responsible for strategic and operative planning and management are not institutionalized in the executive authorities. Responsibilities are not rationally delegated at various levels of authorities. A great part of the time budget of high-ranking officials is spent on operative, everyday activities and settlement of problems, instead of avoiding these problems, working over strategic, priority, perspective and future problems and making relevant decisions;
- Planning and coordination of the activities of the executive authorities, as well as monitoring, audit and control of fulfillment of the decisions made is rather weak;
- The relationship of the executive authorities with the civil society is basically formal and nonsystemic. The activities and political decisions are not explained to the population. The system of analyzing public opinions and requirements, their taking into account at decision-making is unsatisfactory as well.
- Very often the functions and responsibilities of various level administrations and various departments are not clearly defined and marginalized.
- Cooperation, information exchange, coordination of activities and correlation in the decision-making process among the state organizations is non-systemic.
- The efficiency of earmarking of budgetary funds and state property is especially problematic;
- Only the first steps have been taken in the system of administrative governance towards decentralization and introduction of transparency. The issue of relationship of the central and local authorities is to be settled. Their functions and responsibilities are not clearly distributed; financial relations are unsettled as well. Despite the State-declared course towards decentralization, the rights of local elective self-government bodies are rather limited.
- Economic motivation of working in budgetary organizations is rather low. Accordingly, a level of professionalism of an essential part of pubic officials is low as well. The employees of governance bodies, heads of various levels lack professional (manager) competence, strategic vision of events and tasks and planning skills; standards, responsibilities and functions of officials are not established. A great part of old staff failed to get rid of Soviet-old visions and approaches, while a significant part of the youth lacks professionalism, experience, discipline and sense of responsibility.

The above-mentioned problems existing in the state management system are more or less essential for other fields, including the field of environmental protection, that significantly hampers the elaboration of effective policy on development and its implementation in all the directions. The majority of these problems is connected with the fact that Georgia, like other new independent states, has no relevant tradition and institutional inheritance for democratic state management, strategic planning and implementation of plans under market economy conditions at national, local and organizational levels.

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[36] [36] This chapter discusses the state administration problems, based on the information and assessments reflected in the UNDP-supported discussion document "Perfection of the state management system – major precondition for the country's social-economic development" (Vazha Gurgenidze, Tbilisi, UNDP, 1999), UN document "UN-elaborated development aid system, assessment of current situation in the country, Georgia (UNDP, Tbilisi, 2001)," Poverty Reduction and Economic Growth Program (2003).

The new authorities of Georgia, which came to power after the November "rose revolution" through democratic elections, vowed to improve state management, to implement structural reforms, to compose governmental organizations with skilled staff, and make public officials accountable before the society. However, the successful implementation of these reforms and achievement of positive results is anticipated only on a long-term period.

2.9. Awareness of the society and decision-makers in the field of conservation and sustainable use of biodiversity

Georgia has never conducted a special research among the society and decision makers over the biodiversity problems, as well as the economic profit gained from conservation and sustainable use of biodiversity. This issue may be discussed under the results of the research conducted on initiative of the World Bank in 1999-2000, during which over 550 families were interrogated in Tbilisi, Batumi, Kutaisi, Zugdidi and Telavi. Annex I includes several key results of this research.

According to the results, although the society is aware of worsening the biodiversity condition, still it considers that this should not be a priority field in the governmental policy. As for the priorities in the field of environmental protection, the society considers conservation of forests and water resources as a priority. Unfortunately, not a single respondent marks the necessity for conservation of wild flora and fauna species.

Although we have not interrogated the decision-makers, we suppose that the result would have been similar.

So, we can conclude, that active measures are to be implemented to raise public awareness, such as conducting of various campaigns, publishing and disseminating various materials and participating in education system reformation.

It should also be taken into account that the society has accumulated particular knowledge about conservation and sustainable use of natural resources (especially at local levels) and this knowledge should actively be used in a decision-making process. While planning and implementing conservation measures, preservation and deepening of bilateral communications is of vital importance – on the one hand, the society should regularly be informed about modern technologies and achievements, and on the other – public participation in the ongoing processes should become more active.

Chapter 3. Assessment of capacities at an institutional level

The assessment of capacities at an institutional level is aimed to discuss whether the functions and competences of existing institutions in the field of conservation and sustainable use of biodiversity are clearly defined and whether these institutions are capable to perform their functions and goals effectively. This chapter gives information about the major governmental and academic institutions acting in the field of conservation and sustainable use of biodiversity in Georgia, about their functions, competences, structures and accountability, about their financial, technical or human resources, as well as effective management of these resources. This chapter also describes the capacities of non-governmental organizations and local communities in the field of biodiversity conservation.

3.1. Governmental Organizations

The governmental organizations responsible for conservation and sustainable use of biodiversity in Georgia include the Ministry of the Environmental Protection, the State Department for Protected Territories, Reserves and Hunting Areas, the State Forestry Department and the Ecological Police of the Ministry of Internal Affairs. Below is given the information about the functions of these organizations and the capacities of effective implementation of these functions. <u>It should be taken into account that during preparation of this document, following the structural changes in the state sector of Georgia, the State Department for Protected Territories, Reserves and Hunting Areas and the State Forestry Department merged with the Ministry of the Environmental Protection. The Ministry plans to implement important structural reorganization. However, the functions of separate departments of the Ministry and the issues of their composition are not defined yet. Hence, we use the information and analysis prepared at the initial stage of elaboration of the document.</u>

3.1.1. The Ministry of the Environmental Protection and Natural Resources

The Ministry of the Environmental Protection and Natural Resources is a governmental organization, which is responsible for the development and implementation of state policy in the field of environmental protection and use of natural resources. The commitments and competences of the Ministry are defined by the Law of Georgia on Environmental Protection, as well as by other legislative acts in the field of environmental protection. The functions, rights and competences of the Ministry are also ratified by presidential order 198 of 28 March 1998. The mentioned legislative acts and regulations create a rather difficult system of the Ministry's functions and competences in the field of conservation and sustainable use of biodiversity. At the same time, the Ministry's functions are not clearly marginalized from the functions of other departments. The relations and accountability among these departments are not clearly defined as well. Functions are often overshadowed among various departments, such as the Ministry of Agriculture and Food, the Department for Protected Territories, Reserves and Hunting Areas, The State Forestry Department and the Ecological Police.

In the field of conservation and sustainable use of biodiversity the Ministry is entrusted to:
- Develop policies and strategies;
- Implement them;
- Develop legislative acts in the field of biodiversity;
- Monitor enforcement of legislation;
- Meet international commitments in the field of use of natural resources;
- Organize and coordinate the biodiversity monitoring system;
- Create information data base and provide functioning of information systems in the field of use of natural resources;
- Keep the Red List and the Red Book of Georgia;
- Regulate plant protection means, growth regulators and other substances, which have environmental impact;
- Organize state cadastre for use of natural resources;
- Coordinate allotting of plots for economic or other objects;
- Control protected areas through state environmental inspecting;
- Organize state ecological expertise and grant ecological licenses and permits;
- Control fulfillment of terms of environmental licenses and permits;
- Approve forest management plans;
- Elaborate proposals for creation of hunting areas and grant licenses on their use;
- Develop economic norms and mechanisms of state governance for use of natural resources;
- Develop and approve the quotas for the use of natural resources, including forest, flora and fauna species.

The Biodiversity Conservation Department of the Ministry is responsible for meeting most of these commitments. Currently up to 20 employees work at 6 offices of the Department – the offices for Forest Resource Regulation, Protected Areas and Landscapes, Fish Resource Regulation, Wildlife Conservation, Plant Protection and International Conventions. The Ministry controls the use of natural resources, including in the field of biodiversity, and the enforcement through its 12 regional offices. The regional offices lack highly skilled staff (average number of employees is 15). Economic motivation of the employees is extremely low. Average salaries of the Ministry's experts amount to GEL 41 (ranges within GEL 38-90), that is much lower compared with a living wage (GEL 112 in 2002). The level of technical equipment of regional offices is extremely low. Links, as well as cooperation between the central and regional offices are weak. Hence, under such severe conditions of insufficient staff and funding, the Ministry will fail to effectively fulfill its commitments.

The Ministry's capacities in terms of participation in international processes regarding biodiversity

As mentioned above, the Ministry of the Environmental Protection aims to fulfill the international commitments in the field of conservation and sustainable use of natural resources, including biological resources. Georgia is the Party to the following International Conventions: Convention on Biological Diversity, Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (Ramsar Convention), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) and all the three agreements of this Convention: Agreement on the Conservation of African-Eurasian Migratory Waterbirds, Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area and Agreement on the Conservation of Populations of European Bats. The Ministry's Biodiversity Conservation Department is responsible for implementing coordination measures on meeting the guidelines of the mentioned Conventions and Agreements. The Department's employees are the focal points of these Conventions and Agreements. Each Convention has only one focal point. Their responsibilities include coordinating measures over meeting the Convention guidelines and establishing relations with the Secretariat of the Convention. The focal points have to fulfill these works along with other functions defined by the Department. So, their work is less efficient.

The fact that the focal points of the Conventions and Agreements on biodiversity work at one and the same Department significantly promotes exchange of information and cooperation among them. However, links, cooperation and accountability between focal points and other departments and scientific institutions are insufficient. It is rather difficult to obtain information from other departments and scientific organizations. Advisory councils and scientific-technical committees have been set up within the framework of several conventions. However, the activities of such committees are ineffective and non-systemic. Knowledge of the representatives of various departments in the Convention guidelines, the level of their responsibility and interest in cooperation is rather low.

Participating in the Conferences of the Parties to the Convention and Capacities for Carrying out Negotiations

Georgia's participation in the Conferences of the Parties to the Convention and effective carrying out of negotiations is one of the key problems. Usually, large-scale delegations from the developed countries participate in the Conferences of the Parties. These delegations include highly skilled staff from various organizations with relevant knowledge, experience and competence. Unfortunately, Georgia lacks an opportunity to finance even focal points' participation in these conferences, to say nothing about financing several other representatives. Basically the Conventions Secretariats, particular donors or international funds help Georgian focal points participate in the conferences. The competences of the convention focal points, who basically have only biological education, are not

enough to effectively participate in the Conferences of Parties and negotiations. Good command of English or other international languages, which is necessary for it, is one of the serious problems as well.

It is worth noting that Georgia's membership fees to many conventions, including the Convention on Biological Diversity, amounted to USD 42 thousand by 2004. Due to the non-payment of membership fees, the Conference of the Parties to the Convention on Biological Diversity decided not to finance the participation of Georgian focal points in the Conferences of the Parties any more. As a result, Georgia was not represented at the latest Conference of the Parties (in 2003), as well as other conferences held in the frames of the Convention.

Capacities of the Ministry of the Environmental Protection for conducting scientific researches and monitoring in the field of biodiversity

The Scientific-Research Institute for Environmental Protection and the Institute for Sea Ecology and Fishery Economies, which have particular experience and capacities for conducting researches in the field of biodiversity and implementing ex-situ conservation measures, are subordinated to the Ministry of the Environmental Protection.

The Institute for Environmental Protection[37], which forms a part of the Ministry of the Environmental Protection, conducts scientific-research and practical works in the field of environmental protection. Currently 42 scientific and technical workers, including 11 candidates for technical sciences, work at the Institute. The Institute lacks appropriate office or technical equipment necessary for scientific researches. The salaries of the employees are extremely low and even these low salaries are not distributed regularly.

The Institute for Environmental Protection includes the Fish Resources Protection and Reproduction Department (4 employees: 1 candidate for biological sciences, 3 – experts), which basically works over studying the rare fish species vulnerable to extinction and their restocking through artificial reproduction.

Within the framework of the social-economic development plan of Georgia and the annual plans of the Ministry of the Environmental Protection, the Institute has been realizing a project on studying the implementation of the restocking measures and the state of natural breeding through artificial reproduction of sturgeon populations spread in the Black Sea coastal line of Georgia. At the first stage of the project realization the technological process rehabilitation works were conducted at the Center for reproduction of the Geguti rare fish species vulnerable to extinction. An industrial experiment was conducted in 1999 – 117 000 Kolkhetian sturgeon fries were released to the sea through artificial reproduction. In 2000-2001 years the program was not financed due to particular problems in the state budget. In 2002-2003 years the project was partially financed (the salary fund), as a result of which the artificial reproduction failed to be conducted and the project goals to be achieved.

The Scientific-Research Institute for Sea Ecology and Fishery Economies was established in 1931 and within years represented a leading institution in the field of researching the Black Sea coast of Georgia and the internal basins. Below we give the basic researches conducted by the Institute:

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[37] The Scientific-Research Institute for Environmental Protection was founded in 1996 under the Institute for Applied Ecology and Labor Protection.

- Assessment of the Black Sea coast and internal basins, including wetlands, biodiversity and ecological situation;
- Development of measures on biodiversity conservation;
- Inventory and classification of water pollution sources according to their toxicity, prioritization and elaboration of rehabilitation measures;
- Elaboration of the national strategy for preservation and conservation of wetlands of the Black Sea coast of Georgia;
- Elaboration of water organisms reproduction, as well as methods and technologies of intensive production;
- Scientific assistance to commercial aquaculture;
- Application of geoinformation systems for preparation of maps on the spread of habitats and species of sea and wetland ecosystems;
- Raising of public awareness, eco-education and public participation in a decision-making process. Improvement of links with environmental non-governmental organizations to provide involvement of wide strata in ecological issues.

The Institute has research laboratories:
- The laboratory for research of water bioresources and fish reserves;
- The laboratory for ichthyology and aquaculture;
- The laboratory for hydrobiology and applied ecology;
- The laboratory for monitoring the state of sea ecological toxicology and environment;
- The laboratory for technology and microbiology;
- The sector for studying the state of sturgeon populations and reproduction;

During past years the Institute was intensively participating in the processes ongoing within the Black Sea Regional Ecological Program. The international technical aid received within the project has significantly promoted the maintenance and strengthening of the Institute's scientific and research potential (buildings, equipment, transportation). Within the framework of the Black Sea Ecological Program, **the Black Sea Regional Center for Biodiversity Conservation** was set up under the Institute. With the support of the EU TACIS program the following groups were established and equipped at the Institute: wetlands research and monitoring group, sea research and monitoring group, geo-information systems group and eco-educational group.

Many famous scientists, hydro-biologists and ichthyologists worked at the Institute within years. Presently the Institute's scientific and technical personnel consist of 74 persons, including doctors, candidates of sciences, highly skilled experts of hydrobiology, ichthyology, aquaculture and ecotoxicology. The administration tries to provide jobs for young graduates from the Batumi or other higher educational institutions at the Institute on a contractual base. The Institute has regular contracts with other research institutes of the region, as well with non-governmental and international organizations. It is also planned to hold trainings, seminars and joint researches with the support of international organizations, as well as to help young experts work on probation abroad.

During past years the Institute participated in implementation of several projects of international and local importance, including:
- Preparation of the report on Georgia's Black Sea coastal biodiversity (in 1995, the report was published in 1998);
- Research of the reasons for dolphins mortality (1997-1999);
- Research of Atlantic sturgeon reserves on Georgia's Black Sea coast (1997-1998);
- The Black Sea trout strategy, 1999-2000;

- Component of establishment of the monitoring and information system within the framework of the Georgian coastal zone integrated management project (WB/GEF), 2002-2004;
- Monitoring the measures on the Black Sea ecosystem rehabilitation, eutrophication and pollution with harmful substances;
- Hydrobiological and ecotoxicological monitoring of the Black Sea coastal line, 1998-1999;
- The ecological problems of the Black Sea coastal line in connection with the research and exploitation of oil and gas resources, and rehabilitation of its recreation potential (1998-up to present);
- Hydrobiological and ecotoxicological monitoring of wetland ecosystems of the Kulevi terminal and the Black Sea coastal line, 2000-2001;
- Research of the environmental impact of the Supsa oil terminal, 2001-2002.

The Center for Environmental Monitoring, as a structural unit of the Ministry, was established in 2000. The Center aims to organize the state system of environmental monitoring and provide development.

The Center for Environmental Monitoring is entrusted to conduct monitoring of water, air, soil and biodiversity. Monitoring of the biodiversity components is not practically conducted. This is basically caused by lack of experts and absence of technical and financial capacities. Only 8 experts and 5 technical employees work at the Center. The Center has no regional offices that significantly complicates the implementation of monitoring functions. At the same time, the cooperation and exchange of information between the Center and the governmental and scientific organizations working in the field of biodiversity is extremely weak.

The Center for Environmental Monitoring does not implement any projects through the financial support of international donor organizations. The Center completely depends on the state budget. The latter grants funds, which are enough only for salaries.

The Center has submitted the program on the state system for monitoring the environment of Georgia to the Ministry of the Environmental Protection. The program envisages expansion of the Center's scales (establishment of regional offices) and functions. In 2001 the Center prepared a program on creation of the environmental monitoring network. The Center has also prepared a draft law on environmental monitoring.

3.1.2. The Ministry of Agriculture and Food of Georgia

Georgia is rich in biodiversity. We can come across those unique – endemic species of fruit, vine, crops (wheat) and domestic animals, which are not met in other countries.

According to current data, many unique species face extinction. Various species of vine, fruit and wheat, which came up to the 21st century, may disappear soon.

The Ministry of Agriculture and Food is entrusted to promote conservation and sustainable use of agrobiodiversity. However, this function is not clearly defined in the Ministry's regulations (approved by order 670 of 17 November 1997 of the President of Georgia).

The main function of the Agroecology Department, which works under the Ministry of Agriculture and Food, is to elaborate agroecological policy in the country, to study ecologically safe agro-technologies and promote their putting into practice, however, due to financial, technical and staff problems the Ministry cannot effectively perform its duties. Because of absence of regular monitoring, the Ministry of Agriculture and Food has no data over the current state of agrobiodiversity in the country (which

species have been left and which have disappeared). The issue of nursery gardens and experimental plots necessary to concentrate species vulnerable to extinction is of vital importance.

The Ministry of Agriculture and Food also includes the Plant Protection Service, which under the Ministry's regulations and the law on protection of plants against harmful substances, is responsible for elaborating the state policy on struggle against pests, the state supervision, accounting and control of effective and safe use of plant protection substances. We have already marked above that according to the Forest Code of Georgia, the Ministry of the Environmental Protection, the State Forestry Department and the State Department for Protected Territories, Reserves and Hunting Areas also fulfill this function.

The functions and responsibilities of the Ministry of Agriculture and Food in the field of protection of plants against harmful substances, pesticide and chemical application management, supervision and control are not clearly marginalized from the functions of the Ministry of the Environmental Protection. According to the Law of Georgia on Pesticides and Agrochemicals, only the Ministry of Agriculture and Food defines the rule of effective use and safe consumption of these substances. According to the Forest Code, the Ministry of the Environmental Protection, the State Forestry Department and the State Department for Protected Territories, Reserves and Hunting Areas supervise and control the use of these chemicals.

3.1.3. The State Forestry Department of Georgia

Georgia is rich in forest resources. Almost 41% of the country's territory is occupied by forests. Forests are of huge resource value from ecological, cultural, scientific and recreation points of view. Besides providing local enterprises and population with timber and other forest products, the forests perform unique environmental (soil protection, water reservation, water regulation, etc.) functions. The major biological resources of Georgia, including unique flora and fauna species vulnerable to extinction, are concentrated in the forests.

Illegal timber extraction has significantly increased for past years. Trees are basically cut in easily available places by neglecting the established rules that creates danger to the forest ecosystems.

At the moment the forests existing in Georgia are state-owned. The State Forestry Department is entrusted to manage the greatest part (84%) of forests.

The functions and competences of the State Forestry Department are defined by order 518 from 15 September 1997 of the President of Georgia and by the Forest Code (1999). The key functions of the Department are as follows:
- Elaboration of the policies over the forest sector development;
- Forest use planning;
- Forest conservation;
- Elaboration and implementation of a state strategy in the field of rehabilitation of forestlands and use of forest resources;
- Forest inventory;
- Preparation of draft legislative and normative acts in the field of forest management;
- Elaboration and approval of branch standards, technical-economic norms, rules, normatives and methodological documentation.

Particular functions of the Department, such as elaboration of the forestry development policy, protection of forests, state regulation of forest resource use (licenses, permits) and monitoring of the state of forests are not clearly marginalized from the functions of the Ministry of the Environmental Protection, as well as the State Department for Protected Territories, Reserves and Hunting Areas. The

legislation regulating the forestry sector often grants similar functions to these institutions, or sometimes one and the same function is distributed among several various structures. This finally causes inefficient management. The work of the structures is less effective, since their functions are not clearly defined. The situation is complicated by the fact that **the national forestry policy does not exist in Georgia**. Since the country has no national forestry policy, it is impossible to clearly define who is responsible for implementation of particular measures, who should define the effectiveness of various instruments, conduct monitoring of results and make amendments to the schemes laid.

The State Forestry Department consists of the central office, territorial bodies and subordinate institutions. The central office includes six departments, including three branch departments: the Forest Rehabilitation Department, the General Inspection for Conservation of Forests and the Forest Inventory and Forest Use Department. 22 forest economies are under direct subordination of the central office. Moreover, the Forestry Department includes the forestry-nursery, forestry-selection and seed-nursery economies, the education center for dendrology, the station for controlling various species of forest seeds, etc.

Over 3100 employees work at the Department currently. Out of them 2577 (including 60% of foresters) work at the forest economies and subordinate structures. Since 1990 number of the employees of the Department has halved. Such reduction, especially in the forest economies, complicates efforts to control and protect forests against illegal cutting. Presently each forester has to control over 2000-3000 ha of forests. However, they find it rather difficult to control this area without necessary equipment (transport, binoculars, tele-radio communications, etc.). Before the staff reduction 600 ha came to each forester.

The Department is basically financed from the state budget. Out of these funds the greatest part comes to salaries; however the salary rates are extremely low. For example, the heads of the departments of the central administration receive GEL 80-90 (approximately USD 40-45), while ordinary employees receive only GEL 35-40 (approximately USD 20). The situation is much grave at the forest economies, were an average salary amounts to GEL 30 (USD 15).

An insignificant part of the Department's funding is directed to maintenance of forests. **The Department has special incomes from taxes on illegal cutting of wood ???**. The funds gained are directed to rehabilitation, maintenance and conservation of forestlands. However, these special incomes are so small that the Department practically fails to implement measures on rehabilitation, maintenance and conservation of forests. For example, in 2003 the Department planned to conduct rehabilitation works worth GEL 4 118 000. However, really only GEL 31200 was allocated from the state budget. The state budget practically does not finance the sanitary cutting of woods. Besides scarce funding, the effective earmarking of allocated funds is rather problematic as well. In particular, the funds are allocated quarterly and under the rules of the Finance Ministry, that does not correspond with the Department's plans and hampers the works over rehabilitation of forestlands.

The material-technical base of the Department, its administrative and management infrastructure is extremely weak and insufficient to provide effective activities of the organization. Computer equipment is not enough as well. The employees of the regional offices are not familiar with computer technologies. Several offices have no electricity, water and heating. They even fail to purchase papers and other office goods.

The budgetary funding is not enough for development of new plans. Under conditions of absence of cadastre data, it is difficult to plan forest use and allocate sites for forest cutting. Meanwhile, according to the Forest Code, each measure of the forest economies should be implemented in accordance with the materials over forest management.

Unreliability of data. The data over the state of the Forest Fund, resource value and timber extraction volume are not enough and reliable. The data over forest records and forest management plans are extremely outdated. They have not been renewed for past several years. Hence, the perfect information base for planning and elaborating national forestry policy does not exist at all. Along with other information, the government should have exact data over timber volume, age distribution and the volumes of wood cutting in various periods. Planning and definition of expected results is extremely difficult without the above-mentioned data.

Low level of training and stimulation of personnel. The personnel involved in the forest sector is not familiar with modern effective technologies. Working conditions, in terms of safety and health care, are unsatisfactory. Due to low salaries and absence of incentives the forestry administration and the staff responsible for management is not interested in efficient management and protection of forests.

Taking into account the huge economic and ecological significance of forests for the country, the Georgian Government asked the World Bank to render assistance in preparation and implementation of the project on the development of the forest sector. The project was prepared with the financial support of the Japanese government and its implementation started in 2003. The project duration is 7 years and total cost amounts to USD 21 million. Out of this sum USD 16 million is allocated by the World Bank, while the Georgian government's share is USD 5 million.

The project aims at increasing the share of the forest sector in economic growth and poverty reduction through sustainable use of forests. The project envisages the introduction of effective management system in the forest sector based on environmental principles. Along with the investment activities, the project envisages implementation of various measures on capacity building of the State Forestry Department, such as:
- Perfection of the legislative base in the forest sector;
- Elaboration of new national forestry standards and certification rules;
- Structural and financial reorganization and institutional strengthening of the forest sector;
- Elaboration of the auction system of forest resource realization and its trying;
- Public informing and provision of their participation in forest management;
- Improvement of forest inventory and planning taking into account their landscape-ecological values;
- Improvement of forest management and creation of information system;
- Demonstration of ecologically safe technologies and methods of wood processing;
- Elaboration and implementation of the local forest management program;
- Strengthening of the services for forest protection and inspection;
- Development of nurseries;
- Implementation of the program on rehabilitation of forestlands and afforestation.

The implementation of the project on elaboration of the forestry policy of Georgia through the support of the UN Food and Agriculture Organization (FAO) will start in 2004 and last for three years. However, the both projects are at the initial stage of development and currently it is difficult to speak about the gained experience, or the measures on further strengthening of capacities.

3.1.4. The State Department for Protected Territories, Reserves and Hunting Areas of Georgia

In order to conserve biological diversity, a wide network of the National Reserves was created in Georgia last century. By 2004, 16 National Reserves exist in Georgia (I category under IUCN), two National Parks (II category under IUCN) and 6 strict natural reserves (IV category under IUCN). Total protected areas make 4.1%. New protected areas are also planned to be created, as a result of which this parameter will increase up to 6.1%.

Georgia's protected areas were basically created during the Soviet period and their status and protection regimes mostly do not correspond with the international categories of protected areas and their management regimes. However, due to financial problems Georgia fails to manage protected areas even under the existing regimes.

The State Department for Protected Territories, Reserves and Hunting Areas is responsible for state management of protected areas. The key obligations of the Department are defined by the Law of Georgia on Protected Areas and other legislative acts. The functions, obligations and competences of the Department are also approved by order 568 of 1997 of the President of Georgia.

The Department manages the protected areas of Georgia, controls observance of relevant standards on protected areas, implements planning, maintaining and rehabilitating measures and organizes monitoring and scientific researches, as well as registers protected areas. According to the current regulations, The Department's functions include flora and fauna inventory and reproduction, elaboration and implementation of measures on conservation of animals and birds, implementation of biotechnical measures on preserving and strengthening the gene pool of wild life, especially those species, which are highly vulnerable to extinction, and creation favourable conditions for them (reservations, strict natural reserves). However, according to the Law of Georgia on Wildlife, the Ministry of the Environmental Protection or a legal or physical person, owning a hunting area, also fulfil these functions.

The functions of the Ministry of the Environmental Protection and the State Department for Protected Areas are often overshadowed in the field of state management, control and supervision over conservation of wildlife and use of its objects.

The State Department for Protected Areas consists of the central and regional offices – the directorates of protected areas. Presently over 451 employees work at the Department. Out of them 22 work at the central office. The staff is basically recruited of naturalists and foresters. The Department lacks young staff due to low salaries. The salaries range within GEL 55-60 (approximately USD 30). The staff situation is rather grave in the protected areas administrations, especially in those areas, which do not implement any programs financed from foreign sources.

The Department is basically composed of botanists, foresters, zoologists and other relevant skilled employees. They have excellent knowledge in the natural resources concentrated on the protected areas. At the same time, the Department lacks experts in environmental policy and management, financial, human and information resource management, as well as foreign language specialists.

The Department is financed from the state budget. However, the funds allocated are much less than scheduled. For example, in 2000 out of planned 557800 Lari the Department received only 208099 Lari, in 2001 out of 541500 Lari only 384400 Lari was received and in 2002 only 399000 Lari received although 548000 Lari was planned to be allocated. The greatest part of this sum was spent on granting salaries to the employees. The purpose-oriented expenditures, including those on service and maintenance of offices and protected areas, are extremely low.

The Department's material-technical base is scarce and outdated. Lack of facilities, equipment, or operating funds at the headquarters and field level is observed as well. The situation is comparatively better in the directorates of those protected areas (the Kolkheti National Park, the Borjomi-Kharagauli National Park, etc.), which are financed under the international programs. They are equipped with motorcars, telecommunication means and computers.

Likelihood of significant additional government funding is low while knowledge and initiative to pursue non-traditional sources of funding and support is minimal.

The data of the Protected Areas Service on forest management and cadastre are incomplete and outdated. The data for past decade are not regular. No cadastre has been conducted since 1990, while the last forest management took place six years ago. The existing data are kept in the archives of the Department. The Department annually submits particular data to the State Department for Statistics, and in case of necessity – to the Ministry of the Environmental Protection and other departments. Geographic Information System (GIS) mapping information would assist in planning and long-term management of protected area resources.

There are not constant programs on training of experts in the field of protected areas management. Periodic short-term courses are held within the framework of various donor programs.

There are few opportunities for career development within the agency; no performance-based incentive system for advancement.

Within past years the Department for Protected Areas was basically oriented to conservation of flora and fauna species on the protected areas and conducting scientific researches. Meanwhile, the orientation to attraction of tourists, educational activities, and accordingly, the capacities in terms of marketing, public informing and public relations are extremely scarce.

The Department lacks communication with other sectors (culture, tourism and transportation), whose cooperation is essential to the agency's success.

The Project on Development of Georgia's Protected Areas has been developing since 2002 with the financial support of the Global Environment Facility and the World Bank. The project aims at strengthening the Department for Protected Territories, Reserves and Hunting Areas to provide effective fulfillment of its functions. The key components of the project are:

- ***Implementation of measures on protected areas planning,*** which envisages elaboration of the project on systemic planning for the Georgian protected areas network, as well as development of a management plan for the perspective protected areas of the Central Caucasus (Svaneti, Racha-Lechkhumi).
- ***Creation of priority protected areas in eastern Georgia.*** This component envisages the creation of the Tusheti National Park and the protected landscape, the Vashlovani National Park, as well as the development of the Lagodekhi Reserve.
- ***Promotion of institutional development*** envisages the reorganization of the State Department for Protected Territories, Reserves and Hunting Areas, its equipment with modern techniques, introduction of modern technologies and raising the qualification of the staff.
- ***Biodiversity monitoring and scientific research.*** This component will promote collection of additional scientific information within the areas of project activity. International cooperation envisages development of an action plan for transboundary cooperation aimed at managing protected areas.

Like the forest sector development project, the protected areas development project is at the initial stage of implementation. Therefore, it is difficult to speak about the experience gained.

3.1.7. The Central Department of the Ecological Police of the Ministry of Internal Affairs

The Central Department of the Ecological Police was set up in 1991 as a structural unit under the Ministry of Internal Affairs. The Central Department of the Ecological Police pursues activities under the regulations of the Ecological Police of the Ministry of Internal Affairs, ratified by order of the Interior Minster of Georgia from 4 March 1998. According to the regulations, the supreme goal of the Ecological Police is to protect the environment and natural resources of Georgia against criminal offences. In particular, in terms of biodiversity conservation, the main functions of the Ecological Police include the struggle against illegal wood cutting, fishing and hunting.

The following departments have been set up at the Ecological Police: the department for struggle against illegal extraction of wood, the department for struggle against environmental pollution and the department for struggle against poaching and illegal extraction of minerals. Moreover, the subdivision for investigation is entrusted to conduct pre-investigation activities before bringing actions in the ecological field. The Ecological Police has 10 regional offices.

The Department acts in accordance with its own regulations, as well as the environmental legislation, the criminal code and the code for administrative offences.

The functions of the Ecological Police in the field of natural resource protection, including the biological resource protection, often overshadow the functions of the territorial agencies of the Ministry of the Environmental Protection and the Departments for Forestry and Protected Areas. It often triggers misunderstanding and conflicts among these departments and hampers effective enforcement.

3.2. Capacities of academic institutions and their problems

There are several academic institutions in Georgia, which are conducting scientific, research and educational activities in the field of biological diversity for several decades. Among them the following institutions are of vital importance:

The Scientific-Research Institute for Botany (founded in 1933). The basic trends of its scientific-research activities are:
- Taxonomic, floristic, phitogeographic and geobotanical research of Georgia's flora diversity;
- Study of ecological problems of high mountain flora;
- Study of the problems in hidden-seed plant reproductive biology;
- Development of the scientific principles for conservation and sustainable use of Georgia's natural flora resources;
- Ex-situ conservation of the Caucasian/Georgian flora species of vulnerable to extinction;
- Bioremedation of soils polluted by oil and oil products.

The Scientific-Research Institute for Zoology (founded in 1941). The basic trends of its scientific-research activities are:
- Study of the diversity of wild fauna species;

- Study of animal ecology;
- Study of animal ethology;
- Zoogeographic researches.

The Kanchaveli Scientific-Research Institute for Plant Protection of the Academy of Agricultural Sciences of Georgia (founded in 1930).

The Institute conducts scientific researches in the field of insects and plant diseases and develops effective biological, chemical and agrotechnical methods for struggle against them. The Institute's activity is basically directed to agricultural crops.

The Gulisashvili Institute for Mountain Forestry of the Academy of Sciences of Georgia (founded in 1945). The Institutes conducts fundamental, experimental and applied researches. The basic trends of its research activities are:
- Bioecology and ecology of forests;
- Social and ecological functions of forests;
- Scientific principles of rehabilitation of forests;
- Biology and ecology of pests and integrated control system;
- Sustainable use of forest resources.

The Botany Department of the Ivane Javakhishvili Tbilisi State University (founded in 1919).

The Botany Department of the Tbilisi State University (founded in 1919) is one of the oldest departments, which has significantly promoted to the development of botanical science in Georgia. The basic trends of the department's activities are:
- Study of Georgia's flora diversity;
- Floristic-systematic researches;
- Creation of Georgian botanic terminology and textbooks;
- As a result of the field researches and expeditions conducted by the Botany Department for past years, an educational-scientific herbarium of floristic biodiversity has been created in Georgia. The Department laid foundation to the caryological and botanical-geographical researches of Georgian flora. The Department develops the principles for conservation of various rare, endemic and relict species, makes dot maps of the geographic spread of plants and conducts cartography of medical plants.

The Zoology Department of the Tbilisi State University (founded in 1919).

The Department has created Georgian textbooks in zoology of invertebrates and vertebrates, zoogeography and zoological practicum. The Zoology Department includes the Janashvili Zoological Museum, which is of educational importance.

For past decade the state funding, which is of vital importance for the scientific institutions, has been minimized. Consequently, the activities of the state academic institutions have significantly reduced and their capacities weakened. Almost all the academic institutions come across particular problems, such as: low salaries of scientific workers; outflow of skilled staff to the private and non-governmental sectors, or abroad; attraction of young, highly skilled staff is complicated, as a result of which the so-called "ageing process" of the scientific institutions is underway[38]; the infrastructure is destroyed as well; the employees have no access to one of the powerful modern means of communication – Internet, due to which scientists and students fail to get acquainted with fresh information in their fields; the

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[38] While interviewing the representatives of the scientific institutions have used this term.

opportunity of realization of field works and research projects is minimized (separate research works are currently funded by international donor organizations, however even this funding is rather limited). Consequently, the information about the biological diversity is not regularly renewed. The data existing at the institutions are old and do not reflect a real condition of the biological diversity in the country. Along with inadequate funding, the preservation of inefficient and old management methods also triggers the above-mentioned problems at the academic institutions. During the Soviet period the institutions of the Academy of Sciences were basically funded without taking into account the results of researches and without any priorities. Although root political-economic changes took place in the country, old forms and structures of management were preserved at the academic institutions. As a result, they appeared non-competitive and were almost disintegrated.

In order to improve the current situation, urgent reforms are to be implemented in the system of the Academy of Sciences, including at the academic institutions working over biodiversity issues. The reforms should be oriented to introducing the new management systems and searching the ways for reaching institutional sustainability.

The academic institutions have not enough knowledge over modern approaches of biodiversity conservation. This is caused by the fact that during the Soviet period special attention was paid to the scientific researches, while the quality of their use in the conservation management is too low. In spite of these problems, it should be noted that the qualification of the scientists working at the academic institutions and their intellectual level is too high. So, it can be said, that in case of stable funding, purpose-oriented trainings, supply with information, probations abroad and establishment of partner programs with foreign institutions, it will be possible to achieve significant success in a medium-term period.

3.3. Capacities and needs of the non-governmental sector

As a result of the democratization processes, which started in Georgia in the eighties-nineties of last century, the activities of the non-governmental organizations, including the ecological non-governmental organizations, have significantly strengthened.

In 2002 the Regional Environmental Center of Caucasus (REC-Caucasus) interrogated 162 environmental organizations in Georgia. Out of them up to 90 organizations stressed that biodiversity (including conservation of wild flora and fauna species) is one of the priorities of their activity. 45% of these organizations are located in the capital, while 55% - in the regions. However, most regional organizations (up to 80%) are regional offices of the Georgian Greens and not independent non-governmental organizations.

In 2003 REC conducted one more research over assessing the situation, in which 118 environmental non-governmental organizations participated. As a result of this research particular organizational problems were revealed.

Organizational problems

Most non-governmental organizations are funded through the grants. Other sources of funding, such as membership fees or contributions are minimal or do not exist at all. One third of the interrogated organizations does not have any budget at all.
- Non-stable financial security implies non-stability of the organizations' activities. In Georgia there are only several non-governmental organizations acting in the field of biodiversity, which are comparatively stable – their have a permanent office, hired staff, long-term programs, etc.
- Most organizations need to revise the forms of management and structure, also to undergo trainings to make their activities more effective, as well as open and transparent for the society.

- Most Georgian non-governmental organizations have no membership programs, or have a small staff;
- Majority of leading non-governmental organizations are concentrated in Tbilisi, while in the regions the non-governmental sector is too weak;
- Among other difficulties characteristic for the non-governmental organizations, the following are worth noting: unavailability of information, weak organizational management, weak legislative base, lack of skilled staff, etc.

Cooperation with the local or central governmental bodies and the society

Most non-governmental organizations, especially those acting in the regions, cooperate with the local or central authorities. However, cooperation of the non-governmental sector with the society is extremely weak.

Participation in the policy elaboration and decision-making process

Only a small part of non-governmental organizations participates actively in the process of policy elaboration and decision-making. For most non-governmental organizations this opportunity is rather limited.

Basic trends of activities

Most organizations conduct only educational works in the field of biodiversity. Only several organizations implement conservation projects, such as research and conservation of various species, management of habitats and ecosystems, establishment of the system of protected areas, renewal and management improvement, etc.

Cooperation with international non-governmental and financial organizations

Only separate organizations cooperate actively with international non-governmental and financial organizations that is basically reflected in partnership or membership in various international conservation networks and associations, as well as attraction of funds from foreign funds. Most organizations cooperate only with local donors that is basically caused by two reasons – bad command of foreign language and lack of information.

Cooperation with neighbor non-governmental organizations over transboundary issues

Only several non-governmental organizations of Georgia cooperate actively with neighbor countries over transboundary issues.

Despite the above-mentioned problems, the non-governmental sector rapidly develops; number of non-governmental organizations gradually increases and their role becomes more and more important in the field of environmental protection, particularly biodiversity conservation. Currently several powerful non-governmental organizations act in Georgia. They try to promote raising of environmental consciousness of the society and encourage public participation in planning and implementation of conservation activities. At the same time, the non-governmental organizations implement important projects in the direction of biodiversity research, monitoring, conservation of endangered species vulnerable to extinction, elaboration of protected areas management plans and development of legislation. Below we give the description of the activities of several leading non-governmental organizations acting in the field of biodiversity conservation.

World Wildlife Fund (WWF) Caucasus Office was founded in 1990, as a WWF office in Georgia, initially, and since 1998 – as a Caucasus Office. The key trends of its activities are as follows: development of protected areas, ecological-educational activities and promotion of sustainable development projects.

Since 1991 the World Wildlife Fund Caucasus Office has been implementing wide-scale ecological-educational programs. Among the implemented and ongoing projects of WWF there are:
- Development and implementation of the protected areas program. The project aims at assisting in preservation of natural ecosystems of Georgia and promoting the establishment of the new system for protected areas (since 1990);
- Development of the management plan for the Borjomi-Kharagauli National Park - the first protected area in the Caucasus, which corresponds to the international standards (since 1992);
- Establishment of a coordinated system for transboundary protected areas on the East Caucasus along with the Russian representation of WWF - on the basis of Lagodekhi (Georgia) and Zakatala (Azerbaijan) reserves, Tliarti strict natural reserve (Dagestan/Russian Federation, since 1995).

The Noah's Ark Center for the Recovery of Endangered Species (NACRES) was founded in 1989. The key trends of its activities are as follows: monitoring of endangered species of fauna highly vulnerable to extinction; creation of a gene pool reservation for endangered species; restocking of species through promotion of natural processes and reintroduction of objects, which grew up in captivity; conservation of ecosystems; cooperation with the legislative, executive and business sectors of Georgia with the purpose of biodiversity conservation. <u>Within the framework of the environmental educational program,</u> the Center is cooperating with mass media, governmental and non-governmental organizations, and educational institutions. The work is conducted in two basic directions: popularization of conservation activities in Georgia and teaching key principles of conservation.

NACRES has implemented the following projects:
- <u>Conservation of arid and semi-arid ecosystems in Transcaucasus</u>. The project was financed by the Global Environment Facility (GEF). The target region involved the south-eastern part of Georgia and its bordering regions in Armenia and Azerbaijan. The project aimed to conserve arid and semi-arid ecosystems facing degradation through provision of sustainable management of natural resources (1999-2002).
- <u>Conservation of the Javakheti Plateau Wetlands</u>. The project was financed by the Ramsar Convention Secretariat and involved the Khanchala, Madatapi and Bugdasheni Lakes and the adjacent wetlands (1999-2000).

Georgian Center for the Conservation of Wildlife (GCCW) was founded in 1994 to promote the environmental activities in Georgia. Since 2001 it represents the Birdlife International in Georgia. The key trends of its activities are as follows: conservation of vulnerable wild species (special emphasis is laid on birds and amphibians); preservation of habitats critical for biodiversity; sustainable management of ecosystems and active involvement of the society in the environmental activities.

The main projects implemented by GCCW are:
- Important Bird Areas (IBA) in Georgia. 31 such areas were revealed and their management plans are under elaboration. Creation of local organizations and planning and implementation of various conservation activities (since 2001);
- Monitoring of migration of varmint birds on the Black Sea coast of Georgia (since 2000);

- Management of the Javakheti lakes. As a result of implementation of various research and educational projects, particular recommendations have been elaborated for sustainable development of the region (since 1996);
- Conservation of vulnerable species on global and regional scales. Inventory of bird and amphibian species, definition of their status, planning and implementation of conservation activities (since 1994);
- Raising of environmental awareness of the society – a program *Schools for Nature Conservation*, active printing activities, cooperation with local, national, regional and international organizations (since 1994).

Biological Farming Association Elkana was founded in 1993. Since 1996 it has been a member of International Federation of Organic Agriculture Movement (IFOAM). The key trends of its activities are: promotion of sustainable development of agriculture; development of socially and economically sustainable biological peasants' farms; promotion of Georgian villages' participation in decision-making process. Elkana is implementing a GEF-funded project *Conservation and Sustainable Use of Georgia's Agrobiodiversity*.

3.4. Capacities in local communities

2.4. Capacities at local communities

The importance of participation of local population and local communities in natural resource management and biodiversity conservation gradually increases throughout the world. The Convention on Biological Diversity demands the countries to protect traditional knowledge of local population and encourage an equitable sharing of benefits arising from utilization of such knowledge and practices.

Unfortunately, in Georgia the capacities and knowledge of local population and local communities in the field of biodiversity conservation are not properly evaluated and used. Local communities almost do not exist in Georgia, while in those places we they do exist, the efficiency of their activities and their capacities are extremely limited.

Separate projects funded through international sources envisage creation of local communities, their strengthening and inclusion in the conservation and sustainable use of biodiversity. However, a state-level systemic approach towards this issue does not exist so far. The activities of the Georgian Center for the Conservation of Wildlife is worth noting – in 2002 the Center initiated a special program, which envisages creation of local communities in the places important for their biological diversity, as well as increase of their capacities through a specially elaborated training program, small grants, etc. For the present seven such organizations have been set up and the program still continues. It will be rather important to support such initiatives in future as well.

It is necessary to encourage and support the introduction of the so-called co-management in the field of natural resource and biodiversity conservation, to preserve traditional knowledge of local population and use it for biodiversity conservation. For example, in some cases it is possible to transfer the levers of management of separate protected areas to local communities or associations (similar projects are being implemented in the field of water resource management regarding the irrigation issues). The international experience has proved that such approaches would improve the issues of sustainable use of natural resources and biodiversity conservation. It would be expedient to initiate model projects and in case of success, to spread them on the territories especially important for biological diversity.

Chapter 4. Capacities at individual level

The problems and capacities at systemic and institutional levels are significantly stipulated by the capacities at individual level. The efficiency of systems depends on how skilled, experienced and motivated staff participates in their creation and functioning.

The level of education of Georgian population is high enough. In 2000, according to the Human Development Report, Georgia's education index was 0.90. According to this parameter Georgia was included in the category of highly educated countries[39]. In terms of environmental protection, including the capacities for conservation and sustainable use of biodiversity, the country's human resources are characterized with the following strong and weak sides:

- The country has highly skilled staff in technical and natural sciences – biologists, zoologists, ecologists, engineers, geologists, etc., who have relevant knowledge in the country's biological diversity, as well as the capability to settle separate technical problems;
- Critical is the lack of professionals working in certain areas of the global environment, namely: conservation and natural resources management, environmental economics, environmental policy and law, preparation and economic and financial analysis of environmental projects, institutional analysis;
- Lack of highly skilled managers in the state and private sectors. Persons are basically appointed to high ranking positions due to their links with the political parties, instead of their managerial and professional skills and experience;
- Experts have no relevant knowledge and experience to elaborate effective environmental instruments and mechanisms, including economic instruments and financial mechanisms, under market economy conditions. Economic education appropriate for a market economy framework has only been available in the last decade; access to education in environmental economics, management and policy is still very scarce in the country; there are difficulties with finding lecturers in academic institutions in this sphere.
- Lack of skilled staff capable to participate in the talks at international forums. Georgia is basically represented by ecological experts at such forums, who have poor command of English and are incapable to participate in the talks;
- The motivation and skills of experts in terms of group activities are underdeveloped;
- Lack of experience and skills for organizing public discussions and providing involvement of concerned parties in the decision-making process. This is conditioned by absence of relevant historical traditions in the society and management systems, as well as by underestimation of the importance of communication for consensus building.
- The capacities for raising qualifications are limited at state and academic institutions. There are no organized systems for raising qualification and upgrading. In the field of environmental protection knowledge is basically acquired at the expense of international aid, however the educational courses organized through this assistance are short-term and less efficient.
- Institutions responsible for overseeing the implementation of the national laws and other environmental policy instruments often do not have skilled and trained personnel to enforce fulfillment of the requirements.
- Scientific workers lack information and knowledge about modern methods of biodiversity conservation. This is partially caused by bad command of foreign languages and unavailability of foreign literature;
- Individuals working in the non-governmental sector lack trainings in financial management, organizational development issues, conservation methods and activities;

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[39] *Human Development Report, Georgia, 2000. UNDP*

- The state, scientific-research and non-governmental organizations lack experts capable to prepare projects in the field of biodiversity and conduct talks with donors over attraction of funding. Local organizations do not have such capacities at all.
- Development of advisory firms in the field of biodiversity is at the initial stage; accordingly number of skilled consultants is extremely limited.

Chapter 5. Capacity building components in the implemented and ongoing projects on biological diversity, the results and experience

In Georgia a great part of current and implemented projects on conservation and sustainable use of biodiversity has been funded by international organizations and donor countries. In this funding a share of the Global Environmental Facility (GEF) is greatest. The Global Environment Facility has funded the project on studying the biological diversity of Georgia (implemented by UN Environmental Program (UNEP) in 1996), as well as the preparation of a strategy and action plan on conservation of biodiversity (implemented by the Ministry of the Environmental Protection in 1997-1999). GEF is also financing medium and full-scale projects, which are managed with the participation of governmental and non-governmental organizations:

- *Conservation of arid and semi-arid ecosystems in Georgia*. The project has been implemented by a non-governmental organization NACRES in 1999-2002 years with the support of the UN Development Program (UNDP). GEF funding amounted to USD 750 000. Within the framework of the project, the management plan of transboundary arid and semi-arid ecosystems of Georgia, Azerbaijan and Armenia was developed; model pilot projects were elaborated to demonstrate sustainable management of land and use of alternative resources; measures on raising public awareness regarding the biodiversity value and the necessity of its conservation were implemented.
- *The Black Sea coastal line integrated management project* is being implemented under the supervision of the Ministry of the Environmental Protection and with the support of the World Bank (1999-2004). GEF is financing a project component (USD 1.3m), which envisages the creation of protected areas on the Kolkheti wetlands and the elaboration of a plan on rehabilitation of the Kolkheti degraded wetlands and specific habitats.
- *Protected Areas Development Project* is being implemented by the State Department for Protected Territories, Reserves and Hunting Areas with the support of the World Bank (2001-2006). GEF funding is USD 8.7m. The project stipulates the creation of protected areas in eastern Georgia (this component includes the creation of the Tusheti National Park and protected landscape, the Vashlovani National Park and the development of the Lagodekhi Reserve) and the elaboration of a management plan on the perspective protected area in the Central Caucasus (Svaneti, Racha-Lechkhumi); reorganization of the State Department for Protected Territories, Reserves and Hunting Areas, its equipment with modern techniques, introduction of modern technologies and raising of qualification of the personnel.
- *Biosafety National System Development Project* is being implemented by the Ministry of the Environmental Protection with the support of UNEP. GEF funding is USD 166 thousand. The project aims at developing the biosafety national system to enforce the Cartagena Protocol on Biosafety in Georgia, particularly, to create the national legislative base in the field of biosafety.
- *The Project on* **Rehabilitation, Conservation and Use of Agrobiodiversity of Georgia** is being implemented by a biological farming association Elkana (launched in 2004). It aims at creating the models of agrobiodiversity conservation in the natural and cultivated ecosystems of the selected regions of Georgia (Racha-Lechkhumi, Svaneti and Samtskhe-Javakheti) with the participation of farmers, scientists, local governmental bodies, state and private selection institutions. GEF funding is USD 0.987m.

- ***Project on Creation of the Borjomi-Kharagauli National Park*** is one of the largest and first projects (launched in 1992) in the field of biodiversity conservation, which is being implemented within the framework of a bilateral donor assistance program. The project is funded by the German Bank for Reconstruction (KfW) and is being implemented through the WWF Caucasus Office. The project funding exceeds USD 10m. Within the framework of the project a management plan has been prepared and the first protected area - the Borjomi-Kharagauli National Park has been created, which fully corresponds with the international standards. Currently the measures on development of the infrastructure in the protected areas are being implemented.

The above-mentioned projects significantly promote the fulfillment of commitments under the Convention on Biodiversity, such as preparation of a national plan and strategy on biodiversity conservation, creation of protected areas and development of the system of protected areas, implementation of measures on rehabilitation of degraded ecosystems and endangered species, etc. These projects are of huge importance in terms of capacity building in the country. The following activities are conducted within the framework of the projects: collection of information over the status of biodiversity, reveal of the problems existing in the field of biodiversity conservation, development of the legislation, mobilization of scientific potential, conduct of biodiversity monitoring and applied researches, implementation of measures on raising public awareness, elaboration of new plans of management of protected areas, training of local administrations of protected areas, equipment and infrastructure development, etc. However, the efficiency of these projects in terms of capacity building for conservation and sustainable use of biodiversity in the country is still low.

The capacity building measures implemented within the framework of implemented and ongoing projects (projects on creation of the Borjomi-Kharagauli National Park, conservation of arid and semi-arid ecosystems and the Black Sea coast integrated management) were basically connected with the development of separate protected areas and had no considerable effect at national (systemic) and institutional levels. Sustainability and further strengthening of even small capacities built as a result of these measures is rather problematic. This is basically caused by non-sufficient institutionalization of capacities, non-stable financing and purposeful use of institutions and individuals.

The ongoing projects on development of protected areas (GEF/WB) and on forestry development (WB) envisage the implementation of large-scale measures on capacity building at systemic, institutional and individual levels. These projects envisage particular measures on capacity building, such as[40]:
- Reorganization of the State Department for Protected Territories, Reserves and Hunting Areas, its equipment with modern techniques, introduction of modern technologies and raising of qualification of the personnel.
- Strengthening of international cooperation in the development and management of protected areas; elaboration of an action plan on transboundary cooperation.
- Structural and financial reorganization and institutional strengthening of the forest sector;
- Elaboration of new national forestry policy, standards and certification rules;
- Improvement of forest management and creation of information system;
- Strengthening of forest conservation and inspection services.

However, these projects are at the initial stage of implementation and their positive results have not been revealed yet.

Along with contributing to the capacity building in the field of conservation and sustainable use of biodiversity, the above-mentioned projects create experience, from which particular conclusions and

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[40] See detailed information in chapters 3.1.3 and 3.1.4.

lessons can be received to be further used in another projects. On a basis of the current experience it can be said:

- Sustainable political framework and state management systems are of vital importance for successful implementation of projects, capacity building and developing. The current unsustainable political framework in Georgia and frequent, unpredictable institutional changes do not promote capacity development and maintenance. It is therefore clear that certain aspects of the success of capacity development strategies go beyond the scope of the effort itself.
- All the three levels of capacities are interrelated and mutually supportive. Therefore, their coordinated development is necessary to achieve success. Priority should be given to the systemic and programmatic approach to capacity development.
- Political support, commitment and participation of high-ranking officials are of vital importance for successful implementation of measures on capacity development.
- Capacity building measures should create the framework, motivation and potential in the country so that to ensure the implementation of projects on conservation and sustainable use of biodiversity in future without significant foreign assistance.
- Salaries and other incentives of individuals are of critical importance for capacity development, since they define the quality of the work of individuals, their motivation and willingness to stay at the state and academic institutions, or generally in the country. In Georgia a level of salaries at the state and academic institutions is extremely low to keep the staff or attract new employees. If the current policy of compensation is not changed, it is less apparent, that the capacity development measures will have any success in the state sector.
- The non-governmental sector of Georgia has achieved greater progress in the field of biodiversity conservation in terms of capacity building. This sector is basically oriented to implementation of small or medium projects (up to USD 1 million) through international funding. The capacities of such organizations are developing gradually. Their activities are basically directed to preparation of researches in the field of biodiversity, educational activities, implementation of plans on conservation of various species and management of protected areas.
- Among the advantages of the non-governmental sector over the state and academic institutions there are flexibility and mobility, less bureaucratic management procedures and independence from political influence. These factors give the non-governmental organizations a chance for adapting to the existing realities and achieving success.
- With the exception of the local advisory firms, which are gradually developing, the participation of the private sector in the implemented and current projects is too weak. The capacities of the private sector are not properly evaluated and used.
- Public institutions, including the Ministry of the Environmental Protection, have little information about the projects implemented by the non-governmental sector. Their participation in these projects and use of experience and results for capacity building are limited as well.
- Coordination of the projects implemented by the state sector, exchange of knowledge and experience is far from a desirable level. Lack of coordination also decreases opportunities for synergism that can be achieved through coordinated implementation of the Rio Convention and other international agreements.
- Selection of relevant indicators for capacity building and proper monitoring are of vital importance to evaluate the results of implemented measures on capacity building, to gain experience and schedule consequent measures.

Chapter 6.   Summary

Capacity assessment at individual, institutional and systemic levels in the field of conservation and sustainable use of biological diversity

1. Capacity assessment at a systemic level in the field of conservation and sustainable use of biological diversity

1.1. Political-Economic Framework

In spite of particular progress achieved for past years, the political situation in Georgia is still unsustainable – the Abkhaz and South Ossetian conflicts remain unsettled. The social state of the absolute majority of the population is extremely poor. The development of key sectors of economy, such as energy, transport and agriculture, as well as poverty reduction is a key problem of the country in a medium-term period. Unsustainable political and economic environment prevents the state and the society from drawing more attention and resources to the issues of global environmental protection, including conservation and sustainable use of biodiversity.

1.2 State planning in the field of biodiversity and integration of biodiversity conservation issues in the sectoral development plans

- Knowledge and experience of effective strategic planning, including in the field of biodiversity, is limited in the country;
- Coordination and cooperation traditions in the process of planning by various departments, scientific and non-governmental organizations is rather weak;
- State organizations lack knowledge over those approaches and methods, which are widely used by the leading countries in the field of biodiversity conservation and sustainable use planning, such as: reveal of those factors which threaten biodiversity; assessment and prioritization of danger and reveal root causes of danger; definition of effective and cost efficient measures over eradication of these causes; assessment of necessary resources, including financial and human, for implementation of these measures; time-planning of actions, etc.
- Number of experts capable to conduct technical, financial and economic analysis of alternative measures on biodiversity conservation and sustainable use of its components is limited;
- The opportunities for elaboration of effective strategies and plans on social-economic and sectoral development are too weak. Simultaneously, integration of the issues over conservation and sustainable use of biodiversity into the current strategies and plans is not satisfactory. This is basically conditioned by non-assessment of the economic value of biodiversity, lack of attention to the issues of biodiversity conservation, ineffective participation of the state ecological institutions, scientific and non-governmental organizations in the process of planning;
- Generally, public participation in the country's development strategies and branch development programs and plans has not a long tradition. The first steps in this direction are just being taken. Despite positive changes the public participation, possibility and capacity to contribute and influence the decision-making process is still limited. Public participation in the decision-making process is often influenced by the circumstance that the level of public awareness regarding this or that issue is too low, or the society is not acquainted with the established procedures of the decision-making process.
- A level of implementation of measures on environmental protection, including biodiversity conservation, under the current plans and programs is unsatisfactory basically due to lack of financial, human and technical resources;

- Various economic sectors and relevant state organizations are committed to implement measures on conservation and sustainable use of biodiversity; however the coordination among them is too weak;
- Systemic planning of social-economic development and environmental protection, including biodiversity conservation, at local levels does not take place. Up to present not a single administrative territorial unit (region) or local government body has elaborated the environmental action plan. This can be explained by the fact that the opportunities and the demand for program, systemic approach towards settlement of problems is much weaker at local levels.

1.2. Land use planning and biodiversity

Land management issues are closely linked with conservation and sustainable use of biological diversity. During the transition to a market economy particular changes were made in the field of land ownership and management; however many issues still remain unsettled and the relevant institutional capacities undeveloped.

- State policy in the field of biodiversity conservation regarding private agricultural lands is not clearly defined (incentives for farmers, land redemption or other mechanisms);
- Ownership and management of agricultural lands is dispersed among various agencies both at central and local levels. There are no state policy and approaches over use of these lands;
- The Georgian legislation definitely regulates the issues of biodiversity conservation on the protected areas, however the issue of biodiversity conservation outside the protected areas is not addressed at a state level. There exists no state policy in this direction, while the management issues are dispersed among various legislative acts;
- Due to a number of deficiencies existing in the current legislation over land use planning and institutional system, conflict situations often arise at making decisions over land use. One of the major problems of land management is correct distribution of functions among various departments. Functions are often overshadowed among various departments, such as the Ministry of the Environmental and Natural Resources, the Forestry Department, the Department for Protected Areas, the Ministry of Infrastructure, the Ministry of Agriculture and the Land Management Department[41].

1.4. Financial resources

- The level of mobilization of revenues in the state budget is extremely low. Scarce state financial resources are basically directed to repaying foreign debts, ensuring social safety of the

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[41] During preparation of this document, following the structural changes in the state sector of Georgia, the State Department for Protected Areas, Conservations and Hunting Economies and the State Forestry Department merged with the Ministry of the Environment and Natural Resources. The Ministry plans to implement important structural reorganization. However, the functions of separate departments of the Ministry and the issues of their composition are not defined yet. Hence, we use the information and analysis prepared at the initial stage of elaboration of the document.

population and developing priority branches of economy. State funding for environmental, including biodiversity conservation measures is rather insignificant to achieve real changes and results in this field;

- Unlike many central and eastern European countries, extrabudgetary ecological funds do not operate in Georgia either at central or regional levels to provide state funding for the environmental projects;
- Scarce state financial resources significantly hamper effective functioning of the state, including ecological, institutions. Material incentives for the state employees are minimal to keep skilled staff and attract new employees;
- The ecological projects, including the projects on conservation and sustainable use of biodiversity, are basically financed from external sources – through the loans of international financial organizations and the grants of donor countries. A share of the Global Environment Facility (GEF) in funding the measures on biodiversity conservation in Georgia is extremely high;
- Financial markets are weakly developed in Georgia. The existing investment environment hampers investing capital in the field of environmental protection, including conservation and sustainable use of biodiversity, which brings profit in a long-term period. Accordingly, the private sector has no incentives to implement environmental projects;
- The banking sector is not involved in funding the measures on environmental protection and sustainable use of natural resources;
- The capacities of the county in the state, private and non-governmental sectors are rather weak in terms of identification, preparation and implementation of environmental projects, as well as carrying out negotiations with donor countries and financial institutions over attraction of foreign funding.

1.5. National legislation in the field of biodiversity conservation, the deficiencies in its enforcement and the main reasons for these deficiencies

- Although a number of laws act in Georgia today related to the issues of conservation and sustainable use of biodiversity, this field still contains a great deal of unsettled issues. One of the most serious problems raises the necessity for creation of the Red List and the Red Book, which will reflect a real state of biodiversity in Georgia. This demands financial resources and conduct of perfect researches. Without creation of the renewed Red List based on scientific researches, it will be impossible to implement effective measures on conservation and preservation of endangered species.
- There are a number of guidelines of the Convention on Biodiversity, which are not regulated by the Georgian legislation at all. There do not exist legislative and regulation acts, which should regulate separate issues defined by the Convention on Biodiversity, such as:
  1. Availability of genetic resources and equal and fair distribution of the profit gained through use of genetic resources[42];
  2. Preservation and protection of traditional knowledge related to the use of biodiversity;
  3. Regulation and control of introduction of alien species;
  - A number of by-laws have not been elaborated yet, albeit their adoption is implied by the current laws and real enforcement of these laws is impossible without them. For example, the law of Georgia on wildlife implies elaboration and enforcement of 33 by-laws to settle a number of important issues. However, only a small part of these by-laws has been elaborated so far.

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[42] The country does not pay due attention to the guidelines of the Convention regarding the availability of genetic resources and fair and equal distribution of the profit gained through their use (especially for commercial purposes).

- There are many obstructions among the current laws, duplication of functions or uncertainty of functions of the governmental organizations responsible for their enforcement;
- The above-mentioned deficiencies existing in the national biodiversity conservation legislation can be caused by various reasons. Firstly, the primary problem is connected with unavailability of financial resources necessary for elaborating laws and by-laws. The governmental organizations, which are designated to prepare legislative acts, usually do not have necessary funds for it. Due to absence of financial resources, the governmental organizations fail to mobilize highly skilled staff for preparing legislative acts. Basically, the environmental experts work over preparation of legislative acts, who do not have relevant legal education, or vice versa – the lawyers, who do not have relevant knowledge in the field of conservation and sustainable use of biodiversity.
- Environmental law is not taught or is weakly taught at higher educational institutions. This triggers severe deficit of environmental experts in the country.
- Salaries of public officials, who are authorized to prepare legislative acts, are extremely low. Accordingly their motivation is low as well. Public officials work over legislative acts along with other everyday activities. Along with other factors, this significantly delays the process of preparation of legislative acts. Absence of good command of foreign languages by public officials and unavailability of legislative acts of foreign countries hinder Georgian experts from sharing the experience of foreign countries while elaborating legislative acts;
- Lack of funding for publishing and disseminating the laws and by-laws is a severe problem as well. Hence, the laws and by-laws remain unfamiliar both for the population and the public officials;
- Development of effective laws and by-laws is impossible without participation of various concerned parties and without agreement among them. In Georgia mostly one department prepares laws and by-laws, while the participation of other concerned parties is too weak. Public discussions of draft legislation usually do not take place. Each department seeks for maximum expansion of its rights in the field of environmental protection and sustainable use of natural resources. Non-participation of the parties concerned and weak coordination among governmental organizations triggers collisions in various legislative acts and duplication of functions;
- Obviously, the imperfect legislative base raises problems in terms of enforcement of current legislation as well. However, problems are caused not only by the deficiencies existing in the legislation, but also by the weakness of governmental organizations, the corruption existing in these organizations and low level of accountability before the society.

1.6. The issues related to trade in the components of biological diversity

- The legislation of Georgia and the Convention on International Trade in Endangered Species (CITES) partially regulate the issues of trade in particular species of wild flora, as Georgia is the party to the Convention. The issues of trade in those species of wild flora, which are not included in the CITES appendices, are not regulated by the legislation.

- The real impact of trade in wild flora and fauna and consumption patterns on the biodiversity of Georgia is unstudied. Generally, decision-makers and experts have superficial knowledge about the links among export-import policies, market structure, consumption patterns and biodiversity. The political will over conducting researches and elaborating particular policies and strategies is weak as well.

1.7. Economic instruments in the field of biodiversity conservation

Although, Georgia has imposed taxes on forest timber and non-timber resources, as well as taxes on removal of wildlife species and fish resources from the environment, the efficiency of these economic instruments in terms of stimulation of environmental protection and sustainable use of biodiversity is too low. This is implied by bad design of taxes and weak administering. At the same time, the fees for using the protected areas have not been introduced in Georgia so far. In many countries user fees have proven a successful mechanism for generating incomes necessary for biodiversity conservation and protected areas management.
- Lack of skilled human resources hampers designing and managing the incentive system for conservation and sustainable use of biological diversity.

1.8. Assessment of economic values of biodiversity components

- Assessment of economic values of natural resources and biodiversity is very important to promote decision-making in planning and implementing measures on economic development or conservation. Georgia has no experience and capacities in this direction. The country lacks experts in environmental economy. The economic experts have no relevant knowledge and skills to use modern methods for determining the economic values of natural resources and biological diversity.
- The level of environmental economy courses is too low at higher educational institutions. Foreign textbooks prepared for past two decades are not available in the native language.

1.9. Information systems and monitoring in the field of biological diversity

- Although the current legislation commits particular governmental organizations to monitor biological diversity, these organizations fail to systematically collect data over the biodiversity components. This is basically caused by:
- Lack of skilled staff capable to create monitoring systems, including the methods for selection of indicators and observation;
- Lack of techniques and financial resources necessary for monitoring;
- Non-application of monitoring capacities at scientific institutions;
- Information about the particular components of biological diversity is not collected by public, scientific and non-governmental organizations regularly and systematically. The information collected by scientific and non-governmental organizations within the framework of particular projects are not systematized and used for creation of the uniform computer database on biological diversity. Consequently, the availability of information about biological diversity for interested departments and persons is limited.

1.10. Processes and relations between the institutions

A number of deficiencies existing in the state management hamper the effective activities of public, including the ecological institutions, as well as the cooperation of these institutions with each other and scientific and public sectors. The new authorities of Georgia, which came to power after the November

"rose revolution" through democratic elections, vowed to improve state management, to implement structural reforms, to compose governmental organizations with skilled staff, and make public officials accountable before the society. However, it is doubtful that all these reforms will successfully be implemented in a short-term period. Among the key deficiencies of the state management system in Georgia the following are worth noting:

- The activities of the executive authorities are not planned and coordinated effectively; implementation, monitoring, audit and control of the decisions made is unsatisfactory as well;
- State management has no clearly defined systemic character at any level of management. Strategic management is extremely weak or does not occur at all.
- The circles responsible for strategic and operative planning and management are not institutionalized in the executive authorities. Responsibilities are not rationally delegated at various levels of authorities. A great part of the time budget of high-ranking officials is spent on operative, everyday activities and settlement of problems, instead of avoiding these problems, working over strategic, priority, perspective and future problems and making relevant decisions;
- The relationship of the executive authorities with the civil society is basically formal and nonsystemic. The activities and political decisions are not explained to the population. The system of analyzing public opinions and requirements, their taking into account at decision-making is unsatisfactory as well.
- Very often the functions and responsibilities of various level administrations and various departments are not clearly defined and marginalized.
- Cooperation, information exchange, coordination of activities and correlation in the decision-making process among the state organizations is non-systemic.
- The functions and responsibilities of the central and local authorities are not clearly distributed; financial relations are unsettled as well. Despite the State-declared course towards decentralization, the rights of local elective self-government bodies are rather limited. Economic motivation of working in budgetary organizations is rather low. Accordingly, a level of professionalism of an essential part of pubic officials is low as well. The employees of governance bodies, heads of various levels lack professional (manager) competence, strategic vision of events and tasks and planning skills; standards, responsibilities and functions of officials are not established. A great part of old staff failed to get rid of Soviet-old visions and approaches, while a significant part of the youth lacks professionalism, experience, discipline and sense of responsibility.

1.1.1 *Consciousness of the society and decision-makers in the field of conservation and sustainable use of biological diversity*

Due to lack of knowledge about the problems of biodiversity, its conservation and sustainable use, the society and decision-makers are not interested in the biodiversity issues. Very often the society, political circles and decision-making institutions express support to those particular development projects, which bring economic profit in a short-term period. Hence, the long-term impact of these projects on the biological diversity is not discussed in due course. Lack of attention by the society and decision-makers to the biodiversity issues is partially conditioned by the grave social-economic conditions in the country, and partially by the following factors:

- o Non-governmental organizations are too weak to raise the awareness over the importance of biodiversity, while the state programs and projects are fragmental;
- o Number of skilled journalists working in the field of environmental protection is limited;
- o Environmental protection is weakly integrated in the courses of secondary schools and higher educational institutions.

2. Assessment of capacities at an institutional level – state organizations, academic institutions and public sector, working in the field of conservation and sustainable use of biological diversity

2.1 Capacities of state organizations working in the field of biodiversity

In order to assess the capacities (technical, financial and human resources) of public institutions working in the field of conservation and sustainable use of biodiversity, as well as their coordination and cooperation, to study the quality of knowledge of international commitments undertaken under the Convention on Biological Diversity, as well as the integration of these commitments into their working plans and strategies, the high-ranking officials were interviewed and interrogated. The results of these interviews and interrogations, as well as the summary of information reflected in the previous chapters of the document are given below.

2.1.1 Functions, responsibilities and mutual cooperation of state organizations

A number of state organizations are operating in Georgia to meet the guidelines of the Convention on Biological Diversity, its conservation and sustainable use. However, their functions, goals and scopes are not clearly defined. Very often the functions are duplicated by various agencies. Distribution of functions among the Ministry of the Environment and Natural Resources, the Department for Protected Areas, Conservations and Hunting Economies and the Forestry Department of Georgia is worth noting.

Obscure functions, mixed and non-marginalized responsibilities trigger ineffective work of the institutions responsible for the protection of natural resources. Very often this entails conflicts among them, ending in non-fulfillment of obligations by these institutions.

Non-established functions and scopes of the institutions and inappropriate distribution of roles is a result of the unstable political, administrative and social system existing in Georgia for past decade.

2.1.2. Management of state organizations

- State organizations suffer the deficiency of experienced staff acquainted with modern methods of management. The employees of governance bodies, heads of various levels lack professional (manager) competence, strategic vision of events and tasks and planning skills. Persons are often appointed to high-ranking positions due to their links with the ruling political parties, instead of their manager skills or relevant knowledge and experience.
- Labor culture at any level of management, as well as officials' responsibility is far from a desirable level; a working day, week or month of each subdivision and official is not planned at all or is planned ineffectively. Time planning and management does not take place. Practice of periodic reporting, their analyzing and assessing has not been introduced.

- Labor culture at any level of management, as well as officials' responsibility is far from a desirable level; a working day, week or month of each subdivision and official is not planned at all or is planned ineffectively. Time planning and management does not take place. Practice of periodic reporting, their analyzing and assessing has not been introduced. Regular assessment of management system efficiency at public institutions through conducting independent audit does not take place.

2.1.3. Staff Management Policies

- Motivation and stimulation of public officials, their sense of responsibility and self-discipline is at a low level. Standards, responsibility and functions of public officials are not established. A great part of old staff failed to get rid of Soviet-old visions and approaches, while a significant part of the youth lacks professionalism, experience, discipline and sense of responsibility;
- The issue of fair distribution of obligations among the employees is rather problematic. In particular, the so-called terms of reference are not elaborated and approved in most public institutions to clearly define the functions and obligations of each employee;
- Management systems do not reward individual initiatives and achievements and this do not create the environment for effective use of individual skills;
- The principles of consolidated activities are not traditional for most public institutions;
- Due to low salaries, most high-skilled employees leave public institutions and prefer to work at private agencies and non-governmental organizations;
- Attraction of skilled human resources to the public institutions is impossible. Due to low salaries, the staff has no incentives to deepen their knowledge and raise qualification. It significantly hampers professional growth of young experts.

2.1.4. Financial resources

- Financial capacities of state organizations are rather scarce and completely insufficient to provide the effective fulfillment of the guidelines defined by the Convention on Biological Diversity;
- Funding of biodiversity projects by state organizations is equal to zero; at the same time, the capacities for preparation of project proposals and attraction of necessary funds by these institutions are too weak.

2.1.5. Infrastructure and provision with technical resources

- The infrastructure and technical capacities of state organizations are rather poor. The existing infrastructure (premises, buildings, laboratories, installations, transportation, etc.), created during the Soviet period has been destroyed due to absence of funds necessary for their maintenance;
- Due to lack of funding, the state organizations fail to maintain the existing computer or other equipment, to say nothing about the purchase of new ones. Computers and other modern communication technologies are basically purchased through the projects financed by foreign sources;
- Communications among institutions are rather complicated, especially between the central and regional offices.

Information Resources

- Most state organizations do not possess computerized databases (uniform system of modern information technologies). The data, which exist in separate departments, are non-systemic and hardly available for other departments. In a number of cases the departments have no data necessary for creation of the database;
- Very often state organizations have no funds to purchase magazines, books and other necessary editions;
- Internet services are not accessible for the employees, as a result of which the latter have no chance to get fresh information in their field.

2.1.5. Specific capacity constrains in state organizations

The above-mentioned management, staff policy, financial and technical problems are equally characteristic to those state organizations, which operate in the field of conservation and sustainable use of biological diversity. At the same time, there are particular problems, which are connected with special functions of a separate state organization and which significantly hamper fulfillment of the Convention guidelines by the country. Below we will discuss those special problems, which exist in the leading governmental organizations operating in the field of biodiversity, such as the Ministry of the Environment and Natural Resources, the Ministry of Agriculture and Food, the State Forestry Department, the Department for Protected Areas and the Ecological Police of the Ministry of Internal Affairs.

The Ministry of the Environment and Natural Resources

- Number of employees and their qualification at the central and regional offices of the Ministry of the Environment and Natural Resources is not sufficient to implement commitments undertaken under decree on conservation and sustainable use of biological diversity;
- Links, as well as cooperation between the central and regional offices are weak. Lack of skilled staff is one of the most severe problems at the regional offices;
- The Ministry's capacity to fulfill necessary coordination activities for implementation of the Convention on Biodiversity and other conventions connected with biodiversity is rather limited. Along with other factors, this is caused by the fact that the functions and responsibilities of the convention focal points are not clearly defined. At the same time, the timetable and commitments of focal points regarding the coordination of the convention and other activities of the Ministry are not distributed rationally;
- Links, cooperation and accountability between focal points and other departments and scientific institutions are insufficient. It is rather difficult to obtain information from other departments and scientific organizations;
- Advisory councils and scientific-technical committees have been set up within the framework of several conventions. However, the activities of such committees are ineffective and non-systemic;
- The capacities of the Ministry in terms of participating in the Conference of Parties to the Convention on Biological Diversity and other conventions are weak. The State has no opportunity to fund even focal points' participation in these meetings, to say nothing about financing several other representatives;
- The competences of the convention focal points, who basically have only biological education, are not enough to effectively participate in the conferences of parties and negotiations. Good

command of the English Language, which is necessary for it, is one of the serious problems as well;

- The Ministry's capacities in terms of biodiversity monitoring and ex-situ conservation of species are extremely low;
- The Ministry has particular capacities for conducting researches and monitoring in the field of biological diversity through the Institute for Sea Ecology and Fishery Economies. However, this Institute managed to maintain its capacities through international aid. Further maintenance and development of capacities in long-term perspective will be rather problematic.

The Ministry of Agriculture and Food

The Ministry of Agriculture and Food plays an important role in conservation and sustainable use of agrobiodiversity. However, the financial, technical and staff capacities of the Ministry to effectively perform its duties are rather limited.

- Due to absence of regular monitoring, the Ministry of Agriculture and Food has no data over the current state of agrobiodiversity in the country;
- Nursery gardens and experimental plots necessary to concentrate species vulnerable to extinction are not developed;
- The functions and responsibilities of the Ministry of Agriculture and Food in the field of protection of plants against harmful substances, pesticide and chemical application management, supervision and control are not clearly marginalized from the functions of the Ministry of the Environment and Natural Resources.

The State Forestry Department

Due to numerous problems the State Forestry Department, one of the strongest Soviet-old institutions, fails to meet its commitments under market conditions and new social-economic reality in terms of conservation and sustainable use of Georgia's forests.

- The material-technical base of the Department, its administrative and management infrastructure is extremely weak and insufficient to provide effective activities of the organization. Computer equipment is not enough as well. The employees of the regional offices are not familiar with computer technologies. Several offices have no electricity, water and heating. They even fail to purchase papers and other office goods.
- The data over the state of the Forest Fund, resource value and timber extraction volume are not enough and reliable. The perfect information base for planning and elaborating national forestry policy does not exist at all.
- The data over forest records and forest management plans are extremely outdated. They have not been renewed for past several years.
- The personnel involved in the forest sector are not familiar with modern effective technologies. Working conditions, in terms of safety and health care, are unsatisfactory.
- Due to low salaries and absence of incentives the forestry administration and the staff responsible for management is not interested in efficient management and protection of forests.
- Particular functions of the Department, such as elaboration of the forestry development policy, protection of forests, state regulation of forest resource use (licenses, permits) and monitoring of the state of forests are not clearly marginalized from the functions of the Ministry of the Environment and Natural Resources, as well as the State Department for Protected Areas, Conservations and Hunting Economies.
- The situation is complicated by the fact that the national forestry policy does not exist in Georgia. The implementation of the project on elaboration of the forestry policy of Georgia

through the support of the UN Food and Agriculture Organization (FAO) will start in 2004 and last for three years. It will give a unique opportunity for mobilizing human resources from the state, scientific, private and non-governmental sectors and strengthening the capacities of the State Forestry Department, the Ministry of the Environment and Natural Resources and other institutions for elaborating the forestry policy.

- The forestry sector development project funded by the World Bank and the Government of Georgia implies strengthening of the Department's capacities in various directions, such as structural and financial reorganization, forest management improvement and creation of information system, as well as strengthening of forest protection and inspection services; development of nursery gardens, etc. The project is at the initial stage of development and currently it is difficult to speak about the gained experience, or the measures on further strengthening of capacities.

The Department for Protected Areas

Like other state institutions, the Department for Protected Areas faces financial, staff and material-technical problems, that prevents the organization from meeting the commitments. However, there are a number of specific problems, which should be taken into account at planning the measures on building the capacities of the institution.

- The Department is basically composed of botanists, foresters, zoologists and other relevant skilled employees. At the same time, the Department lacks experts in environmental policy and management, financial, human and information resource management, as well as foreign language specialists.
- The knowledge and incentives for using non-traditional mechanisms (including internal and external sources) of funding the protected areas are limited.
- The Department has limited capacities to elaborate the methods and plans on management of protected areas taking into account the realities of Georgia, as well as the best practices of other countries.
- The Department has no capacities, knowledge and experience to make maps through using geoinformation systems, which is an effective, modern means for planning and managing the protected areas.
- There are not constant programs on training of experts in the field of protected areas management. Periodic short-term courses are held within the framework of various donor programs.
- Within past years the Department for Protected Areas was basically oriented to conserving flora and fauna species on the protected areas and conducting scientific researches. Meanwhile, the orientation to attraction of tourists, educational activities, and accordingly, the capacities in terms of marketing, public informing and public relations are extremely scarce. The relations with other sectors, such as culture, tourism and transport, the cooperation with which is necessary to achieve success, are rather limited.

The Ecological Police of the Ministry of Internal Affairs

The functions of the Ecological Police in the field of natural resource protection, including the biological resource protection, often overshadow the functions of the territorial agencies of the Ministry of the Environment and Natural Resources and the Departments for Forestry and Protected Areas. It often triggers misunderstanding and conflicts among these departments and hampers effective enforcement.

2.2. Capacities of academic institutions and their problems

There are several academic institutions in Georgia, which are conducting scientific, research and educational activities in the field of biological diversity for several decades. During past decade the state funding, which is of vital importance for these institutions, has been minimized. Consequently, the activities of the state academic institutions have significantly reduced and their capacities weakened.

Almost all the academic institutions come across particular problems, such as:
- Low salaries of scientific workers;
- Outflow of skilled staff to the private and non-governmental sectors, or abroad;
- Attraction of young, highly skilled staff is complicated, as a result of which the so-called "ageing process" of the scientific institutions is underway[43];
- The infrastructure is destroyed as well; the employees have no access to one of the powerful modern means of communication – Internet, due to which scientists and students fail to get acquainted with fresh information in their fields;
- The capacity for realizing field works and research projects is minimized (separate research works are currently funded by international donor organizations, however even this funding is rather scarce). Consequently, the information about the biological diversity is not regularly renewed.
- The data existing at the institutions are old and do not reflect a real condition of the biological diversity in the country;
- The academic institutions have not enough knowledge over modern approaches of biodiversity conservation. This is caused by the fact that during the Soviet period special attention was paid to the scientific researches, while the quality of their use in the conservation management is too low.

Along with inadequate funding, the preservation of inefficient and old management methods also triggers the above-mentioned problems at the academic institutions. During the Soviet period the institutions of the Academy of Sciences were basically funded without taking into account the results of researches and without any priorities. Although root political-economic changes took place in the country, old forms and structures of management were preserved at the academic institutions. As a result, they appeared non-competitive and were almost disintegrated. They need to be adapted to the market economy conditions, where financial resources are in great demand and the availability of financial resources defines the trends of their activities and generally the issues of their existence.

In spite of these problems, it should be noted that the qualification of the scientists working at the academic institutions and their intellectual level is too high. So, it can be said, that in case of stable funding, purpose-oriented trainings, supply with information, probations abroad and establishment of partner programs with foreign institutions, it will be possible to achieve significant success in a medium-term period.

2.3. Capacities and needs of non-governmental sector

As a result of the democratization processes, which started in Georgia in the eighties-nineties of last century, the activities of the non-governmental organizations, including the ecological non-governmental organizations, have significantly strengthened. The non-governmental sector is rapidly developing; number of non-governmental organizations is gradually increasing and their role becoming

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[43] While interviewing the representatives of the scientific institutions have used this term.

more and more important in the field of environmental protection, particularly in biodiversity conservation.

Currently several powerful non-governmental organizations act in Georgia. They try to promote raising of public awareness regarding environmental issues and encourage public participation in planning and implementation of conservation activities. At the same time, the non-governmental organizations implement important projects in the direction of biodiversity research, monitoring, conservation of endangered species vulnerable to extinction, elaboration of protected areas management plans and development of legislation. Some of them actively participate in elaboration of the state strategies and plans over conservation and sustainable use of biological diversity.

Most non-governmental organizations operating in Georgia face the following deficiencies:

- Most non-governmental organizations are funded through the grants. Other sources of funding, such as membership fees or contributions are minimal or do not exist at all. One third of the organizations do not have any budget at all.
- Unstable financial security implies non-stability of the organizations' activities. In Georgia there are only several non-governmental organizations acting in the field of biodiversity, which are comparatively stable – their have a permanent office, hired staff, long-term programs, etc.
- Most organizations need to revise the forms of management and structure, also to undergo trainings to make their activities more effective, as well as more open and transparent for the society.
- Most Georgian non-governmental organizations have no membership programs, or have a small staff;
- Majority of leading non-governmental organizations are concentrated in Tbilisi, while in the regions the non-governmental sector is too weak;
- Cooperation of non-governmental organizations with the society is extremely weak;
- Most organizations conduct only educational works in the field of biodiversity. Only several organizations implement conservation projects – research and conservation of various species, management of habitats and ecosystems, establishment of the system of protected areas, renewal and management improvement, etc.
- Only a small part of non-governmental organizations participates actively in the process of policy elaboration and decision making;
- Only separate organizations cooperate with international non-governmental and financial organizations; this is basically caused by two reasons – bad command of foreign language and lack of information.
- Only several non-governmental organizations, which operate in Georgia, are actively cooperating with neighbor countries over transboundary issues.
- Among other difficulties characteristic for the non-governmental organizations, the following are worth noting: unavailability of information, weak organizational management, weak legislative base, lack of skilled staff, etc.

2.4. Capacities at local communities

The importance of participation of local population and local communities in natural resource management and biodiversity conservation gradually increases throughout the world. The Convention on Biological Diversity demands the countries to protect traditional knowledge of local population and encourage an equitable sharing of benefits arising from utilization of such knowledge and practices.

Unfortunately, in Georgia the capacities and knowledge of local population and local communities in the field of biodiversity conservation are not properly evaluated and used. Local communities almost do not exist in Georgia, while in those places we they do exist, the efficiency of their activities and their capacities are extremely limited. Separate projects funded through international sources envisage creation of local communities, their strengthening and inclusion in the conservation and sustainable use of biodiversity. However, a state-level systemic approach towards this issue does not exist so far.

It is necessary to encourage and support the introduction of the so-called co-management in the field of natural resource and biodiversity conservation, to preserve traditional knowledge of local population and use it for biodiversity conservation. For example, in some cases it is possible to transfer the levers of management of separate protected areas to local communities or associations (similar projects are being implemented in the field of water resource management regarding the irrigation issues). The international experience has proved that such approaches would improve the issues of sustainable use of natural resources and biodiversity conservation. It would be expedient to initiate model projects and in case of success, to spread them on the territories especially important for biological diversity.

3. Capacities at individual level

The problems and capacities at systemic and institutional levels are significantly stipulated by the capacities at individual level. The efficiency of systems depends on how skilled, experienced and motivated staff participates in their creation and functioning.

The level of education of Georgian population is high enough. In 2000, according to the Human Development Report, Georgia's education index was 0.90. According to this parameter Georgia was included in the category of highly educated countries[44]. In terms of environmental protection, including the capacities for conservation and sustainable use of biodiversity, the country's human resources are characterized with the following strong and weak sides:

- The country has highly skilled staff in technical and natural sciences – biologists, zoologists, ecologists, engineers, geologists, etc., who have relevant knowledge in the country's biological diversity, as well as the capability to settle separate technical problems;
- Critical is the lack of professionals working in certain areas of the global environment, namely: conservation and natural resource management, environmental economics, environmental policy and law, preparation and economic and financial analysis of environmental projects, institutional analysis;
- Lack of highly skilled managers in the state and private sectors. Persons are basically appointed to high ranking positions due to their links with the political parties, instead of their managerial and professional skills and experience;
- Experts have no relevant knowledge and experience to elaborate effective environmental instruments and mechanisms, including economic instruments and financial mechanisms, under market economy conditions. Economic education appropriate for a market economy framework has only been available in the last decade; access to education in environmental economics, management and policy is still very scarce in the country; there are difficulties with finding lecturers in academic institutions in this sphere.
- Lack of skilled staff capable to participate in the talks at international forums. Georgia is basically represented by ecological experts at such forums, who have poor command of English and are incapable to participate in the talks;
- Motivation and skills of experts in terms of group activities are underdeveloped;

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[44] *Human Development Report, Georgia, 2000. UNDP*

- Lack of experience and skills for organizing public discussions and providing involvement of concerned parties in the decision-making process. This is conditioned by absence of relevant historical traditions in the society and management systems, as well as by underestimation of the importance of communication for consensus building.
- The capacities for raising qualifications are limited at state and academic institutions. There are no organized systems for raising qualification and upgrading. In the field of environmental protection knowledge is basically acquired at the expense of international aid, however the educational courses organized through this assistance are short-term and less efficient.
- Institutions responsible for overseeing the implementation of the national laws and other environmental policy instruments often do not have skilled and trained personnel to enforce fulfillment of the requirements.
- Scientific workers lack information and knowledge about modern methods of biodiversity conservation. This is partially caused by bad command of foreign languages and unavailability of foreign literature;
- Individuals working in the non-governmental sector lack trainings in financial management, organizational development issues, conservation methods and activities;
- The state, scientific-research and non-governmental organizations lack experts capable to prepare projects in the field of biodiversity and conduct talks with donors over attraction of funding. Local organizations do not have such capacities at all.
- Development of advisory firms in the field of biodiversity is at the initial stage; accordingly number of skilled consultants is extremely limited.

4. Capacity building components in the implemented and current projects on biological diversity, the results and experience

In Georgia a great part of current and implemented projects on conservation and sustainable use of biodiversity has been funded by international organizations and donor countries. In this funding a share of the Global Environment Facility (GEF) is greatest.

The projects financed from foreign sources significantly promote the fulfillment of guidelines under the Convention on Biodiversity, as well as the capacity building for fulfillment of these guidelines. The following activities are conducted within the framework of the projects: collection of information over the status of biodiversity, reveal of the problems existing in the field of biodiversity conservation, development of the legislation, mobilization of scientific potential, conduct of biodiversity monitoring and applied researches, implementation of measures on raising public awareness, elaboration of new plans of management of protected areas, training of local administrations of protected areas, equipment and infrastructure development, etc. However, the efficiency of these projects in terms of capacity building for conservation and sustainable use of biodiversity in the country is too low.

Positive outcome of capacity building measures implemented within the framework of separate projects on biodiversity conservation has no considerable effect at national (systemic) and institutional levels. Sustainability and further strengthening of even small capacities built as a result of these measures is rather problematic. This is basically caused by non-sufficient institutionalization of capacities, non-stable financing and *purposeful use of institutions and individuals.*

Those projects, which envisage implementation of large-scale measures on capacity building at systemic, institutional and individual levels (such as current projects on development of protected areas (GEF/WB) and on forestry development (WB)), are still at the initial stage of implementation and their positive outcomes have not been revealed yet.

Along with contributing to the capacity building in the field of conservation and sustainable use of biodiversity, the above-mentioned projects create experience, from which particular conclusions and lessons can be received to be further used in another projects. On a basis of the current experience it can be said:

- Sustainable political framework and state management systems are of vital importance for successful implementation of projects, capacity building and developing. The current unsustainable political framework in Georgia and frequent, unpredictable institutional changes do not promote capacity development and maintenance. It is therefore clear that certain aspects of the success of capacity development strategies go beyond the scope of the effort itself.
- All the three levels of capacities are interrelated and mutually supportive. Therefore, their coordinated development is necessary to achieve success. Priority should be given to the systemic and programmatic approach to capacity development.
- Political support, commitment and participation of high-ranking officials are of vital importance for successful implementation of measures on capacity development.
- Capacity building measures should create the framework, motivation and potential in the country so that to ensure the implementation of projects on conservation and sustainable use of biodiversity in future without significant foreign assistance.
- Salaries and other incentives of individuals are of critical importance for capacity development, since they define the quality of the work of individuals, their motivation and willingness to stay at the state and academic institutions, or generally in the country. In Georgia a level of salaries at the state and academic institutions is extremely low to keep the staff or attract new employees. If the current policy of compensation is not changed, it is less apparent, that the capacity development measures will have any success in the state sector.
- The non-governmental sector of Georgia has achieved greater progress in the field of biodiversity conservation in terms of capacity building. This sector is basically oriented to implementation of small or medium projects (up to USD 1 million) through international funding. The capacities of such organizations are developing gradually. Their activities are basically directed to preparation of researches in the field of biodiversity, educational activities, implementation of plans on conservation of various species and management of protected areas. Among the advantages of the non-governmental sector over the state and academic institutions there are flexibility and mobility, less bureaucratic management procedures and independence from political influence. These factors give the non-governmental organizations a chance for adapting to the existing realities and achieving success.
- With the exception of the local advisory firms, which are gradually developing, the participation of the private sector in the implemented and current projects is too weak. The capacities of the private sector are not properly evaluated and used.
- Public institutions, including the Ministry of the Environment and Natural Resources, have little information about the projects implemented by the non-governmental sector. Their participation in these projects and use of experience and results for capacity building are limited as well.
- Coordination of the projects implemented by the state sector, exchange of knowledge and experience is far from a desirable level. Lack of coordination also decreases opportunities for synergism that can be achieved through coordinated implementation of the Rio Convention and other international agreements.
- Selection of relevant indicators for capacity building and proper monitoring are of vital importance to evaluate the results of implemented measures on capacity building, to gain experience and schedule consequent measures.

ANNEX

Conventions on Biological Diversity and General Review of Meeting the Guidelines Defined by the Conventions

1. Convention on Wetlands of International Importance, Especially as Waterfowl Habitat

The Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (Ramsar Convention) was signed in a city of Ramsar (Iran) on 2 February 1971. It is aimed at establishing international cooperation in the field of protection and wise use of wetlands[45]. Georgia joined the Ramsar Convention in 1996.

The Ramsar Convention aims at protecting wetlands. To achieve this goal the Convention sets particular commitments to the parties. In particular, the parties to the Ramsar Convention are designated to provide conservation and sustainable use of wetlands on the entire territory of the country. The parties should integrate conservation of wetlands into national land use planning and cooperate on implementation of the Ramsar Convention, especially with respect to transboundary wetlands, shared water systems and shared species.

In Georgia particular sites were granted a status of wetlands of international importance, the so-called List of Ramsar Sites. Particularly,
1. Central Kolkheti Wetlands: on the Black Sea coast, covering 33 710 thousand hectares and including the Churia, Nabada and Pichora-Paliastomi wetlands, the Paliastomi Lake, the adjacent areas and sea aquatorium.
2. Ispani wetland, which also is located on the Black Sea coastal zone – in the Adjara Autonomous Republic, near a city of Kobuleti. It covers 513 hectares.

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[45] Wetlands are defined as: "marsh, fen, peat land, or water whether natural or artificial, permanent or temporary, with water static or flowing, fresh, brackish or salt including areas of marine water the depth of which at a low tide does not exceed six meters."

The Ministry of the Environment and Natural Resources represents the National Administrative Authority of Georgia, which is set to fulfill the guidelines defined by the Ramsar Convention. The Ministry, as the National Administrative Authority, has the following functions:

1. Elaboration of national policy and strategy on conservation and rational use of wetlands and their integration into sectoral and intersectoral plans of development;
2. Development of legislative base for conservation and wise use of wetlands;
3. Cooperation over wetlands management with various departments; creation of the Ramsar National Committee;
4. Definition and implementation of measures on raising public awareness and education; involvement of local communities in wetlands management;
5. Monitoring of the wetlands of international importance in accordance with the Convention's requirements;
6. Immediate informing of the Convention Bureau about the changes in ecological character of wetlands, which have already occurred, are occurring or are likely to occur. This requires regular monitoring of Ramsar sites and exchange of information between the Ramsar site administration and the national administrative authority;
7. Provision of transboundary wetlands management and conclusion of relevant agreements with neighbor countries in accordance with the requirements of the Ramsar Convention.

An employee from the Ministry's Biodiversity Department will perform a function of the Ramsar Convention Focal Point. According to the requirements of the Convention, two CEPA focal points from the governmental and non-governmental sectors have been appointed as well. Under the Convention, STRP focal point should be appointed as well. However, this post is vacant in Georgia so far.

The interdepartmental coordination committee to the Ramsar Convention – National Ramsar Committee – has not been established in Georgia yet. The committee should be composed of the representatives of the governmental and non-governmental organizations related to wetlands management. Creation of the committee is defined by the national plan of actions of the Convention for 2003-2005 years.

Policy and strategic plans on wetlands conservation

Development and implementation of national policies on conservation and sustainable (wise) use wetlands is one of the key guidelines of the Ramsar Convention. The Ramsar handbook has been elaborated to help the parties meet these guidelines (*Guidelines for developing and implementing National Wetland Policies, Ramsar Handbook 2*).

Georgia has not developed the state policies on wetlands management yet. However, the country has developed a draft law On Strategy and Action Plan on Biodiversity Conservation in Georgia (prepared through the coordination of the Ministry of the Environment and Natural Resources and with the financial support of the World Bank and the Global Environment Facility), under which wetlands are considered the major habitats of Georgia, which are seriously endangered and specific strategy is to be developed to ensure their conservation and sustainable use. The mentioned draft envisages development of the state strategy on wetlands, as well as particular activities to fulfill the guidelines defined by the Ramsar Convention. Particularly:
- Inventory of wetlands;
- ***Inclusion in the list of wetland ecosystems at identifying potential sites;???***

- Approval of the management plan on the protected area and adoption of the relevant law for the ***Javakheti highland***.

According to resolution 26 of the 8th conference of the parties to the Ramsar Convention, the draft plan of actions for 2004-2005 years has been developed. According to the plan, among the priority measures to be implemented in Georgia in 2004-2005 years there are:

1. Development of the national policy on wetlands and integration into sectoral and intersectoral development plans, programs and policies;
2. Revision of the current legislative base with the purpose of taking into account the guidelines of the Ramsar Convention;
3. Establishment of the national committee for wetlands;
4. Inventory of wetlands;
5. Creation of the scientific-technical panel, appointment of focal points

Legislative acts and by-laws related to implementation of the Ramsar Convention in Georgia

The Ramsar Convention requires thorough analysis and modification of the current legislative base of Georgia for fulfillment of the guidelines of the Ramsar Convention on Wise Use of Wetlands. Such analysis has not been conducted in Georgia. However, some of the current laws partially envisage the guidelines of the Ramsar Convention in terms of conservation and sustainable use of wetlands. In particular: According to the law of Georgia On Environmental Protection, swamps and basins are subjected to protection against pollution, damage, degradation, etc. (article 45, p. 1.2).

The law of Georgia on the System of Protected Areas defines the capacity of creation of the categories included in the international network of protected areas, including wetlands of international importance (article 3.2.).

According to the law of Georgia on water, the swamps existing on the territory of Georgia belong to the State Water Fund of Georgia. At the same time, swamps belong to the group of water objects of state importance. The same law defines regulation mechanisms for conservation and sustainable use of water objects, including swamps.

According to the law of Georgia on Creation and Management of the Kolkheti Protected Areas, the Kolkheti National Park and the Kobuleti Conservation have been created, which almost completely include the wetlands of international importance existing in Georgia and provide their conservation and preservation in accordance with the guidelines of the Ramsar Convention.

According to one of the guidelines of the Ramsar Convention, the national legislations should envisage assessment of any cases of environmental impact, when wetlands (not only Ramsar sites) may be changed as a result of human interference, or due to changes in land/water use. At the same time, the assessment of environmental impact should imply the involvement of the local population (interested persons). The laws On Environmental Permits and On State Ecological Expertise provide the fulfillment of this guideline in Georgia.

According to the law on State Ecological Expertise, environmental permits are needed to conduct various types of activities in Georgia, including business and economic activities, implementation of settlement and development plans and projects, realization of infrastructure projects, etc. Environmental impact is to be assessed to receive permits for the activities of the category I. This category includes those activities, which due to their scales or contents can cause serious negative and irreversible impact on the environment, natural resources and human health.

The law of Georgia on Environmental Permits defines the necessary elements for assessment of environmental impact, including direct on indirect impact of the activities on natural habitats and wildlife, soil, air, water, climate, landscape, ecosystems, cultural values and social or economic factors. The law provides the participation of the society and local population in the process of assessment of environmental impact and granting of permits.

State organizations, scientific institutions and non-governmental organizations working in the field of conservation of wetlands in Georgia

State organizations

Basically the following state organizations are connected with wetlands management:
- The Ministry of the Environment and Natural Resources;
- The Ministry of Agriculture and Food;
- The Ministry of Public Health Care;
- The State Forestry Department of Georgia;
- The State Department for Conservations, Protected Areas and Hunting Economies;
- The State Land Management Department.

Along with the functions of the Convention's Administrative Authority, the Ministry of the Environment controls conservation of water resources (through the State Department for Hydrometeorology). The Ministry of Public Health Care plays an important role in revealing various water diseases (for example, malaria) and avoiding their negative impact on human health.

According to the law of Georgia on local self-governance and governance, rights are assigned to the local self-governance bodies, to resolve the issues of the state importance delegated by the state bodies proceeding from the state interests and taking into consideration the local situation.
The above-mentioned organizations, as well as the local government bodies often have radically different interests regarding the wetlands. This considerably complicates the fulfillment of the Ramsar Convention guidelines.

Scientific-Research Institutes

The Scientific-Research Institutes for Botany and Zoology, as well as the Batumi Sea Ecology Institute, survey the biodiversity of wetlands in Georgia. The latter also represents the Black Sea Biodiversity Center, which was created within the framework of the Black Sea Environmental Program (BSEP). A task force for wetlands has been set up at the Institute. The technical assistance program has been implemented at the Institute, which envisaged its equipment and conduct of trainings over wetlands research and monitoring. However, systemic monitoring of wetlands does not occur due to lack of financing[46].

Due to lack of stable funding, the scientific-research institutions conduct researches from time to time, in case of receiving orders or grants. The institutions have no uniform database. The information is not systematized and easily available. Lack of knowledge about modern approaches of biodiversity researches is a serious problem as well. Skilled staff moves to non-governmental organizations. Exchange of information between the scientific institutions and state organizations is extremely weak.

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[46] Each contracting party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the list has changed, is changing or is likely to change as a result of technological development, pollution or other human interference. Information on such charges shall be passed without delay to the organization or government for the continuing bureau duties.

The capacities of experts and institutions in terms of preparation of management plans over conservation and sustainable use of wetlands are weak as well.

The Ramsar Convention strategic plan designates the review and assessment of focal points for conservation and sustainable use of wetlands. The assessment should reveal the capacities of institutions for meeting the Convention's guidelines and promote further implementation of measures on capacity development, including the measures on boosting ties among the institutions. Thus, no review and assessments have been conducted within the framework of the Convention guidelines so far. However, it may be said, that in terms of meeting the Convention's guidelines, the above-given assessments of the weak and strong sides of Georgian state organizations correspond with the Ramsar Convention.

Non-governmental organizations

Several non-governmental organizations of Georgia possess important human and technical resources and data over wetlands. These organizations conduct activities mainly through international funding. For example, a non-governmental and non-profit scientific organization NACRES (Noah's Ark Center for the Recovery of Endangered Species) with the support of the Ramsar Small Grants Center identified the Khanchala, Madatapi and Bugdasheni Lakes as the wetlands to be included in the List of Ramsar Sites of International Importance and the plans on their management have been developed. The Center for the Recovery of Endangered Species is also conducting the researches on the Kartsakhi Lake located on the Georgian-Turkish border.

As a result of the researches conducted by the Caucasus regional office of the World Wildlife Fund (WWF), based in Georgia, the wetlands for conservation were identified in the ecoregion of the Caucasus. Under the project on integrated management of coastal zone, a non-governmental organization Georgian Protected Areas Program (GPAP) has developed the Kolkheti protected areas management plans.

Program on Education and Public Awareness in the Field of Wetlands Management

Within the framework of the Convention on Wetlands, the Program on Education and Public Awareness (GEPA) is acting in Georgia for past several years. Under the program, the World Wetlands Day is celebrated in the country (on February 2). On this day various information papers, leaflets and posters are spread. A specially prepared program was broadcasted by television. Within the framework of the Black Sea Coast Integrated Management Project, being implemented with the co-financing of the Global Environment Facility, a strategy for public awareness has been elaborated and a documentary film about the Kolkheti National Park has been prepared, various articles were published in central and local newspapers. A web site about the Kolkheti National Park has been created.

Within the framework of the memorandum on mutual understanding between the U.S. National Park Service and the State Department for Protected Areas of Georgia, formal partnership has been established between the Kolkheti National Park and the Point Ray National Part. An exchange tour was conducted with the Republic of Turkey in July-August 2002.

In order to gain experience in the issues of wetland management, five Georgian experts underwent special training on wetlands restoration and management in Netherlands in 2002 through the financial support of the Black Sea Coast Integrated Management Project.

Despite the above-mentioned measures, the level of public awareness in Georgia, as well as their participation in the measures on wetlands conservation is too low. In the relevant governmental organizations experts and decision-makers have not enough knowledge about ecological and economic benefits of wetlands. The experience in wise use of wetlands is low as well.

2. Convention on International Trade in Endangered Species of Wild Fauna and Flora

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was sides by the Parties to the Convention in Washington on 3 March 1973. Georgia joined the mentioned Convention in 1996.

Within the framework of the Convention the uniform system for controlling and regulating the international trade in endangered species of wild flora and fauna has been set up. The objective of the Convention is to prevent trade in endangered species and effectively regulate trade in others. Parties shall not allow trade in specimens of species included in Appendices I, II and III[47].

- Appendix I contains species threatened with extinction for which trade is authorized only in exceptional circumstances;
- Appendix II contains species that may become threatened unless trade is strictly regulated;
- Appendix III contains species that are subject to regulation within the jurisdiction of a Party and for which the cooperation of other Parties is needed to prevent or restrict their exploitation.

Administrative and scientific authorities of the Convention

According to article 9 of the Convention, each party to the Convention must designate:
  a) At least one management authority to grant permits or certificates on behalf of the Party;
  b) At least one scientific authority.

In Georgia the Ministry of the Environment and Natural Resources performs the functions of the administrative authority. The Ministry performs its functions through its Biodiversity Department. According to the order of the Minister, national focal point was appointed in 2000.

According to the Convention's guidelines, the Ministry as an administrative authority, is designated:

1. To fulfill the resolutions adopted by the Conference of the Parties to the Convention;
2. To grant permits and certificates on import, export, re-export and introduction of specimens of species included in Appendices;
3. In case of necessity to prepare suggestions over making changes to the appendices and their submission to the CITES Secretariat for further discussion at the Conference of Parties;
4. Each party shall maintain records of trade in specimens of species of wild fauna and flora, which shall cover:

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[47] Appendices I and II of the Convention include 67 species of fauna and 62 species of flora spread in Georgia.

- The names and addresses of exporter, re-exporter and importer;
- The number and types of certificates and permits granted;
- The States with which such trade occurred;
- The numbers or quantities and types of specimens, names of species.

5. Each party shall prepare periodic reports of its implementation of the present Convention and shall transmit it to the Secretariat.

Despite the Convention's guidelines, the scientific-research institutes aimed to work over the issues of the Convention do not exist in Georgia so far. The Institutes for Botany and Zoology of the Academy of Sciences are in touch with the Convention issues. These institutions have no special functions regarding the Convention. Neither are they committed to fulfill the Convention guidelines.

By the order of the Minister for the Environment and Natural Resources, the national scientific authority responsible for flora has been acting since 2001. The scientific authority consists of 13 members. It is basically composed of the scientific workers from the Institute for Botany and the Central Botanical Garden.

The Institute for Zoology of the Academy of Sciences performs a function of a scientific authority responsible for fauna. In case of necessity the administrative authority will apply to this department in a written form and accordingly receive consultations and recommendations over various issues of fauna.

The cooperation of scientific institutions with the administrative authority of the Convention – the Ministry of the Environment and Natural Resources - is irregular and nonsystemic. During each particular case, the administrative authority applies to the scientific authority for recommendations and consultations.

The system for regular monitoring of biodiversity, generally, and endangered species of wild fauna and flora, specifically, does not exist in Georgia.

National legislation over CITES

CITES guidelines designate the existence of a special national law on regulation of the issues regarding international trade in endangered species of wild fauna and flora. Resolution 84 of the Conference of Parties defines the necessity for adoption of this law. Presently a special law on CITES does not operate in Georgia and the Convention guidelines are basically fulfilled under the decrees and resolutions of the Convention. The Law on Wildlife is related to the issues over international trade in endangered species of wild fauna and flora. The law indicates that conservation and restoration of taxons included in the Red List and the Red Book of Georgia should be conducted under the decree on the rules of practical measures over survival of endangered species. However, Georgia has not developed such decree yet. Accordingly, the national legislation does not regulate the issues of international trade in endangered species of wild fauna and flora.

The Ministry of the Environment and Natural Resources has developed a draft law on International Trade in Endangered Species of Wild Fauna and Flora, which is planned to be adopted in the near future.

Level of awareness among communities and decision makers

The level of awareness among communities and decision makers about the issues of international trade in endangered species of wild fauna and flora is extremely low in Georgia. Noteworthy, that the customs services of Georgia lack knowledge about the guidelines of the Convention and Georgia's

commitments before CITES. Just these services should play an important role in implementation of the Convention's guidelines. Although the Ministry of the Environment and Natural Resources of Georgia has issued a special directory and a seminar has been conducted for the employees of the Customs Department and their regional services, still much is to be done to raise public awareness at customs services.

3. Convention on the Conservation of Migratory Species of Wild Animals

Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) was signed in 1979 in Bonn (Germany). Georgia joined the Convention in 2000 (11.02.2000).

The objective of the Bonn Convention is to conserve terrestrial, marine and avian migratory species and their habitats over the entirely of their migratory range. The Convention has two appendices (I and II), which include the species protected by the Convention due to their status. In particular:

Appendix I lists migratory species that are threatened with extinction;
Appendix II lists migratory species that have an unfavorable conservation status, and which requires or would benefit from the implementation of international cooperative agreements, a very specific tool of the Convention.

The Parties to the Bonn Convention are committed:

- To promote, co-operate in and support research relating to migratory species;
- To provide immediate protection for migratory species included in Appendix I; and
- To conclude agreements covering the conservation and management of migratory species included in Appendix II.

Since 2001 Georgia is a party to the following agreements developed within the framework of the Convention on Conservation of Migratory Species of Wild Animals:
- Agreement on the Conservation of African-Eurasian Migratory Waterbirds;
- Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area;
- Agreement on the Conservation of Populations of European Bats.

Compared with other Conventions on Biological Diversity, the institutional and legislative development regarding the Convention on the Conservation of Migratory Species of Wild Animals is extremely weak in Georgia:

- There is no special legislative base to regulate the issues over conservation of migratory species of wild animals;
- There is no systemic monitoring on migratory species;
- There are no national focal points. Only one focal point has been appointed in the scientific authority.