THE BIODIVERSITY FINANCE PLAN

The Biodiversity Finance Initiative (BIOFIN) – Georgia

BIOFIN
THE BIODIVERSITY FINANCE INITIATIVE

2018

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Ministry of Environmental Protection and Agriculture of Georgia and United Nations Development Programme, 2018.
Tbilisi, Georgia.

Biodiversity Finance Initiative – Georgia: The Biodiversity Finance Plan.
Final Report written by Tornike Phulariani, Levan Inashvili, Dimitri Papashvili, Gigla Ramishvili and Hugo Van Zyl. (88 Pages).

Available from:
http://www.ge.undp.org/content/georgia/en/home/projects/biodiversity-finance-initiative--biofin-.html
https://www.biodiversityfinance.net/georgia

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ACKNOWLEDGEMENTS

This project relied on inputs from many people working in biodiversity conservation and other sectors. We would like to acknowledge the following valuable contributions:

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EXECUTIVE SUMMARY

Biodiversity and ecosystem services make a highly significant contribution to the Georgian economy. Investment in Georgia's biodiversity is clearly aligned with overall socio-economic development planning including the Socio-economic Development Strategy for Georgia, the 2015 state program "For a Strong, Democratic, Unified Georgia" and the Regional Development Programme of Georgia 2010–2017. Such investment also strongly supports livelihoods and key sectors in the economy including forestry, tourism, agriculture, water and energy (hydroelectricity in particular).

This Biodiversity Finance Plan (the Plan) has been developed to identify and support the implementation of *biodiversity finance solutions* that together have the potential to significantly improve the management and financing of biodiversity management in Georgia. The aim of the Plan is therefore to ensure that Georgia's unique and valuable biodiversity is protected and maintained through, in part, the adequate financing of the required biodiversity conservation and management interventions.

Finance solutions are a means of using one or more finance mechanism or instrument which results in the improvement of biodiversity conservation and management. Finance solutions can result in:

- *An increase in funding, either from new sources or existing sources;*
- *Better spending of existing funds;*
- *Reducing costs associated with biodiversity conservation and management;*
- *Realigning neutral or harmful expenditure to be beneficial (such as adjusting subsidies to support conservation).*

The Plan is the fourth element of the Biodiversity Finance Initiative (BIOFIN) being implemented by the Ministry of Environmental Protection and Agriculture (MEPA) and the United Nations Development Programme (UNDP). The other BIOFIN assessment elements included the biodiversity policy and institutional review (PIR), the biodiversity expenditure review (BER), and the financial needs assessment (FNA) focused on the National Biodiversity Strategy and Action Plan (NBSAP). The main results and recommendations of these three previous assessments have been used to inform this Plan.

The Plan presents a comprehensive and coherent national approach to biodiversity finance that encompasses a full suite of finance solutions. It is a living document that builds on progress already made in Georgia to suggest targets and steps that expand the country's biodiversity finance agenda and achieve national biodiversity targets. This offers a means to foster action and support partnerships for investing in biodiversity by deepening the understanding of a range of solutions and by framing realistic action points. The Plan is composed of:

1. A prioritization of nine key finance solutions based on a rigorous and participatory selection process;
2. A systematic approach to address financial needs, identify emerging opportunities and prioritize key biodiversity outcomes;
3. Concise technical proposals to help operationalise the prioritized biodiversity finance solutions, including required steps and identification of risks; and
4. Consolidated estimates of the expected finance results where possible.

The nine prioritised biodiversity finance solutions in the Plan tend to be targeted towards specific finance needs but many are complementary. They can be summarized as follows:

Improving state budget justification capacity at the Ministry of Environmental Protection and Agriculture (MEPA).

Biodiversity contributes significantly to the economy through nature based tourism, agriculture, hydro resources, and diverse natural products. Currently over 60% of finance for biodiversity in Georgia comes from the national budgets and greater funding levels are needed. The Ministry of Finance (MoF) seeks budget requests with clearly identified results and economic impacts. This solution aims to develop capacity at MEPA to produce and present well-formulated results-based budgets that meet the requirements of MoF and are supported by powerful socio-economic justifications. This will result in increased state budget allocation to priority biodiversity actions. The solution requires technical assistance, capacity development and research facilitation elements at MEPA.

Increasing the financial sustainability of the protected areas system through improved revenue generation from services

The achievement of Protected Areas' primary goal – biodiversity conservation – is dependent on significant financial expenditures and current financing for PA management is low. Protected Areas' (PAs) own revenues[1] from sources such as entrance fees, accommodation fees, concessions and tourist services charges play an important role in supporting their financial sustainability. The Agency of Protected Areas (APA) have increased their own revenues by an average of 40% per year over the last 4 years primarily through the introduction of entrance fees for access to tourist caves and other built infrastructure around natural sites. The aim of this solution is to increase the rate of own revenue growth for protected areas – a particularly important imperative given to government budget constraints – through increased entrance fees and enhanced infrastructure and other tourism services. The solution entails drawing up sustainable tourism infrastructure development plans for key protected areas to be financed by government, donors and, potentially, financial institutions. New infrastructure will be developed to generate financial returns by capturing entrance and user fees. Revenues will support the entire protected areas system's management goals.

Improving EIA quality, expertise and effectiveness

An effective and well-functioning Environmental Impact Assessment (EIA) system can protect biodiversity and mitigate harmful impacts of economic activities. The Georgian government is currently improving the EIA process and MEPA is seeking better integration of biodiversity and ecosystem services into the EIA policy. This solution aims to ensure adequate assessment and evaluation of biodiversity into the EIA process. The result is avoided loss of biodiversity and reduced future cost of restoration from planned economic activities. The activities would include: (a) Biodiversity specific guidelines for EIA process, (b) Biodiversity checklists for MEPA staff to assess/revise submitted EIA reports and (c) Appropriate capacity building activities.

Supporting a well-designed, appropriately scaled and enforced system of EIA fines

The current system of fines for EIA violations is not effective because the levels of fines are too low for a majority of business sizes and sectors, fines are appealed in court and often require 3-5 years of litigation, and a certain proportion of fines remain unpaid. A well designed system of EIA fines, appropriately scaled and enforced, could deter irresponsible behaviour from Environmental Impact Permit holders. This solution aims to set economically meaningful fine levels, produce a clear and easily enforced mechanism for issuing and collecting fines through amendments to legislation, and implementing the revised system. The result will be a system that acts as a realistic deterrent to would-be offenders and incentivises sustainable practices. The specific actions include: (a) reviewing the existing fines system (b) proposing a reformed fine system and amounts (c) implementing and refining the updated system.

Creating an effective environmental and biodiversity damage remediation and compensation system

Over the last four years GEL 140 million in administrative and criminal damages have been submitted for prosecution, however a small percentage of these damages have been paid. Judicial delays and complexity

1 These forms of revenue are also sometimes referred to as "site-based" revenue.

for calculating damages to the environment limits the effectiveness of damages as incentives for responsible behaviour. The Department of Environmental Supervision (DES) is currently reviewing its system for environmental damages. In addition, the DES is developing the Environmental Liability Law (ELL) which will introduce the concept of major environmental damages. This solution will improve the methodology for damage calculation and criminal thresholds and support the completion of the ELL. These changes will improve the effectiveness of the environmental liability system by retaining more cases in administrative courts (vs criminal courts), increase payment rates and increase the effectiveness of penalties as deterrents for illegal activities. The specific steps required include finalisation and submission of ELL, revision of damage calculation methods, and changes to thresholds for criminal proceedings.

Reviewing and updating existing fees and quota system for the use of natural resources

A wide range of renewable natural resources (including Non-timber forest products, NTFPs) are used for commercial and local use. The current system for fees and quotas is limited in terms of the amount of fees charged, the number of species included, and the ability of key organizations to monitor and enforce collection regulations. This solution aims to review and revise the system of fees, quotas, and monitoring of renewable natural resources to establish an effective, equitable and sustainable system for commercial natural resource use. The impact of this solution will be increased resources available for monitoring, increased sustainable revenues for local governments, improved sustainability of natural resource use and the ability to track certificates of origin for natural products. The necessary actions include reviewing the current system of fees and quotas, assuring strong scientific background on sustainable harvesting levels, monitoring systems from APA, NFA and other organisations, revising system structures, fees and quotas, identifying options for retaining fees for improved monitoring, and tracking / verification of commercial use of natural products. It would also seek to ensure that a greater proportion of fee revenues are re-invested in natural resource protection activities by local authorities.

Professionalizing the fuelwood industry

The current system for harvesting and sale of fuel wood from natural forests is an informal (and largely illegal) system, complex to administer and may be leading to unsustainable harvesting practices. The National Forest Agency (NFA) seeks to revise the harvesting system to improve sustainability, management effectiveness and financial cost recovery. The aim of this solution is to professionalize the fuel wood industry by converting the informal practice of social cutting into an efficient, sustainable and regulated system that satisfies fuel wood demand. This will result in improved administrative and operational efficiencies, sustainable harvesting levels, and increased capture of fees for the NFA. Required steps include determining key criteria for system (affordable price, equity, etc.), detailed feasibility and options study, proposed structure of system and revision of regulations (if required), piloting and scaling.

Improving ecotourism offerings in state forest areas

Forest areas provide a large range of opportunities for sustainable and nature based tourism which is rapidly expanding. The National Forest Agency (NFA) seeks to identify and develop ecotourism infrastructure and services at exceptional sites in the forest estate. This solution aims to enhance institutional capacity of the NFA for developing sustainable tourism products, to develop and capture appropriate revenues, and to direct such revenues back towards sustainable forest management. The impact of this solution will be an increase in ecotourism destinations and an increase in sustainable financing for forest ecosystems. The required steps include designation of a responsible party at the NFA to oversee this process, a study to identify high value tourist locations and potential products, design of investment plans for priority sites and projects, development of revenue strategy (concession plan, entrance fees, revenue sharing with local communities, etc.), engaging with banks and other finance institutions for financing of pilot sites, and scaling of programme.

Building country capacity for fundraising for priority nature conservation and management objectives

Biodiversity conservation and sustainable management produces public goods and services that benefit society

and are valued by a wide range of individuals, companies, and donors. As such, donations are an important source of financing for biodiversity and improving the level and targeting of donations can support achievement of conservation goals. This solution will build country capacity for fundraising that targets a) individuals through crowdfunding and other web-based tools, b) banks and other companies through Corporate Social Responsibility (CSR) programs, and c) these and other "classic" donors and international finance institutions through improved communication and fundraising skills in environmental organisations. The impact of this solution will be increased financial flows to conservation NGOs, government agencies, and other groups. Although this solution will evolve over time, initial actions include the following: develop a pilot program for the Tbilisi Zoo targeting individuals and corporate donors, creating an online donation platform of fundable projects based on NBSAP priorities, and train organizations for developing specific fundraising and PR campaigns for biodiversity conservation actions.

An integrated Finance Plan

The individual finance solutions are best understood as parts of an integrated plan, given the links and synergies between solutions. They cover a range of different biodiversity outcomes, instrument categories, draw on different finance sources, and have different lead agents. With respect to biodiversity outcome they are supportive of all the strategic goals of the NBSAP with a particularly emphasis on mainstreaming, threat reduction, sustainable use and safeguarding ecosystems, species and genetic diversity. Market instruments are the most prominent, with four solutions falling under this broad category. These are followed by regulatory instruments (three solutions) and fiscal instruments (two solutions). Regarding sources of increased biodiversity funding (or cost reductions), private companies and households represent the most prominent primary source of finance. Government, mostly in the form of MEPA, thus has opportunities to leverage private resources in a number of ways. For the majority of solutions, government would need to lead implementation through MEPA, although many of the finance solutions will only be successful if there are strong partnerships with the private sector and NGOs.

Financial benefit projections

In projecting the financial benefits of the finance solutions, it is important to be cognisant of substantial uncertainty around the effectiveness with which solutions would be implemented, the effectiveness of enabling factors required for success, and the state of the broader economy. Nevertheless, where possible, indicative estimates of potential financial benefits remain a valuable tool for planning. The net financial benefits (i.e. revenue or avoided expenditure minus additional implementation costs) associated with the nine prioritized solutions were projected over the next 10 years and are presented in the Table below. Up-front investments in protected areas, needed to generate increase revenues, would result in relatively moderate net outflows in the first three years. Thereafter, annual net financial gains would build from GEL15.9 million in 2021 climbing to GEL24.6 million by 2023 and ending at GEL47.6 million in 2027. Total cumulative net financial gains over a 10 year period would amount to approximately GEL160 million in current terms (un-discounted) which would make a highly significant contribution to reaching the country's biodiversity conservation goals.

Table 1. Annual and cumulative total financial benefits per finance solution over a 10-year period

Finance solution	Net financial gain in current terms (GEL million)											
	2018	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*2027*	Total	
Budget justification	- 0.13	1.00	2.08	3.20	4.34	5.52	6.74	8.00	9.29	10.62	50.66	*31.7%*
PAs own revenue	- 11.06	- 17.97	- 23.45	5.34	6.76	8.25	- 3.63	12.09	14.71	17.96	8.99	*5.6%*
EIA effectiveness	0.2	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	21.7	*13.6%*

Finance solution	Net financial gain in current terms (GEL million)											
	2018	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*2027*	Total	
EIA fines reform	- 0.03	0.03	0.02	0.02	0.03	0.17	0.17	0.17	0.17	0.17	0.85	*0.5%*
Environmental liability reform	- 1.00	2.60	3.84	3.84	5.20	5.20	6.44	6.44	7.80	7.80	48.16	*30.1%*
Natural resource use fees	0.13	0.04	0.32	0.48	0.64	0.80	0.96	1.12	1.36	1.60	7.19	*4.5%*
Fuelwood market reform	0.11	0.27	0.48	0.73	1.05	1.44	1.91	2.49	3.18	4.02	15.70	*9.8%*
NTFPs and tourism in forests	0.08	0.15	0.19	0.27	0.38	0.46	0.57	0.69	0.84	0.96	4.58	*2.9%*
Targeted donations	- 0.50	- 0.38	0.20	0.40	0.40	0.40	0.40	0.40	0.40	0.40	2.12	*1.3%*
Total	**- 12.42**	**- 13.56**	**- 15.16**	**15.85**	**20.79**	**24.62**	**16.35**	**34.58**	**41.35**	**47.53**	**159.94**	***100%***

Improved state budget justification contributes the largest share to this total at 32% followed by environmental liability reform (30%), increased EIA effectiveness (14%) and fuelwood market reform and professionalisation (10%). The remaining solutions contribute less than 10% each with protected areas own revenues (6%) and the review and updating of fees and quota system for the use of natural resources (5%) being most prominent. Approximately 70% of total financial gains would be sourced primarily from private sector companies and households, although the development of most of these finance solutions still require active government leadership and policy development.

The way forward

The Biodiversity Finance Plan can be seen as a living document, intended to be owned and used by the biodiversity sector as a whole. It is a resource for the process of developing and encouraging biodiversity finance in Georgia, and may be updated as circumstances, needs and opportunities evolve. Implementation will require a coordinated effort from a group of government, civil society (NGO), private and development partners. The bulk of the implementation and monitoring of the Plan will be coordinated by MEPA using existing collaboration frameworks. It is, however, largely recognized that the commitment and financing by the public sector should increasingly be complemented with private sector engagement, foundations, donors, and NGO support.

LIST OF ACRONYMS

APA	Agency of Protected Areas
BBOP	Business and Biodiversity Offsets Programme
BER	Biodiversity Expenditure Review
BIOFIN	The Biodiversity Finance Initiative
CBD	Convention on Biological Diversity
CBO	Community Based Organisation
CDM	Clean Development Mechanism
CNF	Caucasus Nature Fund
DES	Department of Environmental Supervision
EIA	Environmental Impact Assessment
ELL	Environmental Liability Law
EU	European Union
FNA	Financial Needs Assessment
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GiZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GNTA	Georgian National Tourism Agency
HPP	Hydro-electric Power Plant
IFI	International Financial Institution
IUCN	International Union for the Conservation of Nature
MENRP	Ministry of Environment and Natural Resources Protection
MEPA	Ministry of Environmental Protection and Agriculture
MESD	Ministry of Economy and Sustainable Development
MoE	Ministry of Energy
MoF	Ministry of Finance
NBSAP	National Biodiversity Strategy and Action Plan
NEA	National environmental Agency
NFA	National Forestry Agency
NGO	Non-governmental Organisation
NTFP	Non-timber Forest Product
PA	Protected Area
SDGs	Sustainable Development Goals
SEA	Strategic Environmental Assessment
TEEB	The Economics of Ecosystems and Biodiversity
UNDP	United Nations Development Programme
UNFCC	United Nations Framework Convention on Climate Change
WWF	World Wide Fund for Nature

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1. INTRODUCTION

Georgia is fortunate to be endowed with rich biodiversity. Parts of two globally important and threatened biodiversity hotspots (out of a total of 34 hotspots worldwide), namely the Caucasus and Irano-Anatolian biodiversity hotspots, are located within its borders. The high levels of biodiversity to be found in the country are driven by a number of factors including: (i) its location at the juncture of two major biogeographic regions; (ii) the land form (the peninsula between the Black and Caspian Seas provides an important migration route and fly way); (iii) the topography of the landscape (with great variations in altitudes, and opportunities for isolation); and (iv) the climate which varies significantly across the country, resulting in very varied habitat types – from sub-tropical drylands and dry forests, to mountain tundra (MENRP, 2005).

Biodiversity and ecosystem services make a highly significant contribution to the Georgian economy. Investment in Georgia's biodiversity is well alignment with overall socio-economic development planning such as that contained in the Socio-economic Development Strategy for Georgia. It also supports livelihoods and key sectors in the economy including forestry, tourism, agriculture, water and energy (hydroelectricity in particular). Healthy ecosystems play a key role in disaster risk reduction, climate change adaption and mitigation. There is thus a strong case to be made for investing in biodiversity and ecosystem services conservation.

Despite its value, biodiversity degradation and loss continue to occur at unacceptably high rates. This is driven by a combination of factors which include (MENRP, 2015):

- Poverty leading to the unsustainable utilization of natural resources for energy, food and financial benefit;
- Lack of awareness among the general population and decision-makers regarding the value of biodiversity and the importance of its preservation;
- Insufficient incorporation of the values of biodiversity in policy documents, strategies and in the implementation of programs;
- Legislative gaps in the regulation of biological resource utilization and management;
- Lack of resources for exercising biodiversity preservation laws and procedures.

These factors affect biodiversity through degradation and fragmentation of natural habitats, excess utilization of natural resources, environmental pollution, introduction of alien invasive species and through climate change. As a result, many plant and animal species have become endangered to the point where the Red List of Georgia contains 139 animal species and 56 wooded plant species. Of these, 43 of the animal species and 20 of the plant species are categorized as endangered or critically endangered. In addition, 44 vertebrate species are considered globally threatened and included in the IUCN Red List as vulnerable or endangered (MENRP, 2015).

Biodiversity losses have occurred in combination with extensive ecosystem services losses. For example, the water ecosystems in Georgia have been intensively modified over the years as wetlands have been drained and water levels in many lakes have been artificially regulated. Water pollution continues to be associated especially with the utilities sector, industry, thermal power engineering, agricultural run-off and domestic waste, for instance, from dumps on river banks (UNEP and WWF, 2013). Accelerated levels of land degradation also continues to be a concern resulting in decreasing agricultural potential from erosion and greater risks from natural disasters such as floods and landslides. It is difficult to overestimate the economic costs of this

ecosystem loss and degradation especially since the changing climate is placing increased stress on the need for water and energy security, food production, and sustainable livelihoods.

From a policy perspective, the overall response of government to key legislative challenges, including those associated with biodiversity management, is outlined in the 2015 state program "For a Strong, Democratic, Unified Georgia". With respect to environmental challenges, the program highlights that "The environmental legal framework will be revised and upgraded in such areas as: waste management, water resource management, atmospheric air protection, forest management, reduction of natural and anthropogenic hazards, nuclear and radiation safety, protection of biodiversity, sustainable management of natural resources, issuance of permits and licenses, environmental impact assessment and strategic environmental assessment." The National Biodiversity Strategy and Action Plan (NBSAP) for 2014-2020 is recognised as the key planning instrument focused on biodiversity protection. The NBSAP formulates a comprehensive policy and defines national priorities in order to transform Georgia into the country, where by the year 2030 "it will be a country with population living in harmony with nature, biodiversity will be commonly valued, biological resources – conserved and wisely used. This will provide natural continuity of ecosystem processes, healthy environment and benefits essential for all people". Under the NBSAP, 21 national goals are set for protection of biodiversity, which are targeted at preservation of the values of biodiversity, raising public awareness regarding significance of biodiversity and benefits derived therein, integration of biodiversity aspects, enhancement of the biodiversity status and mitigation of threats to biodiversity.

One of the main goals of the NBSAP is to lay the groundwork for the fulfilment of obligations under the EU Association Agreement and facilitation of harmonization with European environmental policy and strategies. This includes commitments for conservation of species and habitats and sustainable use of biological resources. It has given impetus to the drafting of a law on Biological Diversity and participation in a joint program on the establishment of the Conserved Area Emerald Network in South Caucasus and Central and East Europe.

The Ministry of Environment and Protection and Agriculture of Georgia (MEPA) has the primary responsibility for biodiversity conservation within government. It is responsible for biodiversity protection, regulation, restoration and monitoring and for general environmental policy including that for water and mining. Key departments and agencies under its control include:

- The Department of Biodiversity and Forest Policy which is responsible for defining the strategies and elaboration of biodiversity and forestry related policy documents.
- The Agency of Protected Areas (APA) which manages the national network of protected areas.
- The National Forestry Agency (NFA) which focused on forest utilisation and protection.
- The National environmental Agency (NEA) which issues licenses for mineral resources use and carries out environmental monitoring focused on pollution.
- The Department of Environmental Supervision (DES) which is responsible for carrying out environmental inspections.
- The Land Resources Protection and Mineral Resources Service which is charged with the implementation of the Law on Soil Protection and with mining regulation.

Other key ministries and institutions with respect to biodiversity management include the Ministry of Agriculture given the dependence of agriculture on biodiversity, the Georgian National Tourism Administration (GNTA) which aims to ensure sustainable tourism development and the Ministry of Energy primarily through their regulation of hydropower projects which impact on biodiversity. The table below shows total number of identified HPPs in Georgia.

Table 1-1: Identified HPPs in Georgia

HPPs (Status)	Number
Existing	64
Construction	51
Feasibility	100
Total	**215**

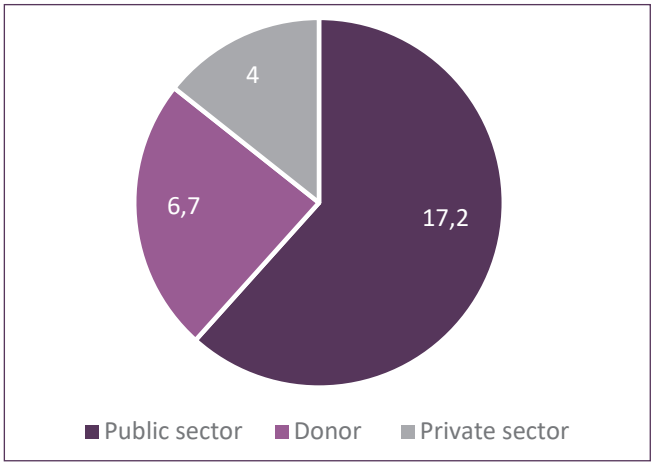
The key financial and economic ministries are the Ministry of Finance which is responsible for coordinating and overseeing the state budgeting process along with the Ministry of Economy and Sustainable Development focused on economic policy development and responsible for trade, foreign investments and business sector regulation. Economic management of the economy generally emphasises creating an environment that is investor and business friendly and supportive of economic growth. This is achieved through various means including keeping taxes relatively low and simple, limiting red tape and bureaucracy, providing investment incentives and advice and addressing barriers to investment. The state budgeting process is implemented in accordance with the 2009 State Budget Code of Georgia. This provided the legal basis for the switch to program or outcomes based budgeting which was first operationalised in 2012. The national government is responsible for the state budget, the supreme executive bodies of the relevant Autonomous Republics in Georgia are responsible for the republican budgets and budgets of the local self-government units fall under their executive bodies. The Basic Dimensions and Directions of the country's development is essentially the development master plan for the country and includes the information on medium-term macroeconomic and fiscal forecast, as well as information on main issue-areas of the development of the central, autonomous and local self-government authorities of Georgia.

The Biodiversity Finance Initiative (BIOFIN, see Box 1) has been implementing a series of technical assessments on biodiversity policy, institutions, expenditures and financial needs. The Biodiversity Expenditure Review (BER) provides a detailed assessment of the financing environment for biodiversity conservation in Georgia. The majority of expenditure on biodiversity is by government totalling USD 17.2 million in 2017 which is equivalent to 0.4% of Georgia's total government budget. Government expenditure is augmented by private sector[2] expenditure estimated at USD 4 million in 2017 and donor expenditure of USD 6.7 million (MENRP, 2017).

Box 1: The Biodiversity Finance Initiative

The United Nations Development Programme (UNDP) launched the Biodiversity Finance Initiative (BIOFIN) in 2012 as new global partnership seeking to address the global biodiversity finance challenge in a comprehensive and systematic manner. The project aims to develop a methodology for mainstreaming biodiversity into national development and sectoral planning, and address the finance gap for biodiversity. Georgia is one of 30 countries implementing BIOFIN at the national level led by the Ministry of Environmental Protection and Agriculture (MEPA) and its partners.

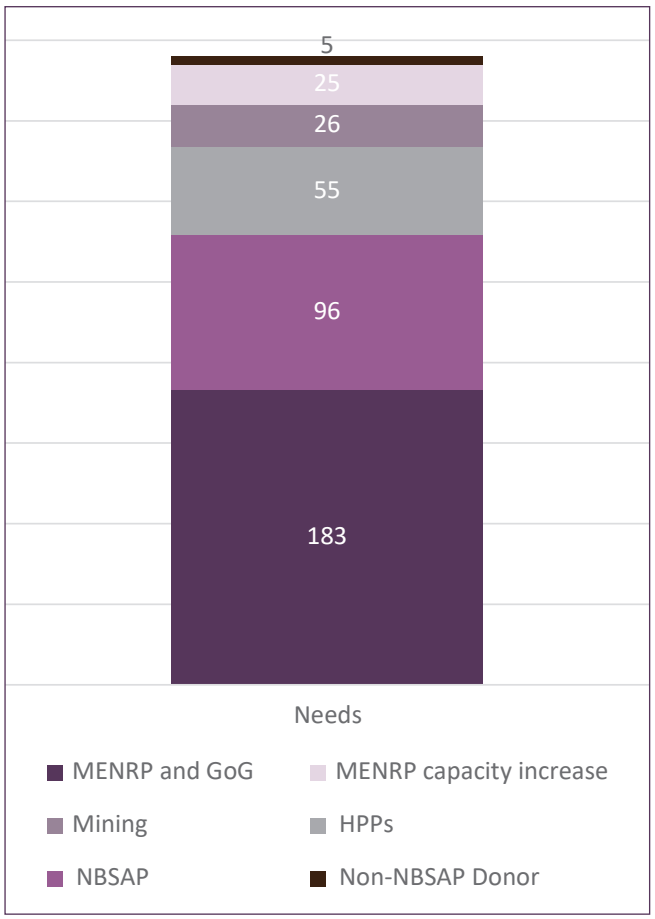
Figure 1-1: Total Biodiversity Spending in Georgia (2017 nominal, million USD)



Current financing levels for biodiversity are inadequate. The BIOFIN Financial Needs Assessment (FNA) shows that they do not cover the anticipated costs of achieving the goals of the National Biodiversity Strategy and Action Plan (NBSAP). The total financing need was estimated at USD 390 million. Figure 1-2 below presents the breakdown:

2 *Private sector consists of an estimated spending for HPP's.*

Figure 1-2: Total financing need breakdown (million USD)



Total gap amounts to USD 135 million for the next five years, or USD 31 million per year. The majority of the gap is due to NBSAP actions – 38% (USD 52 million), followed by HPP with 24% (USD 32 million), mining 19% (USD 26 million) and MEPA capacity increase 19% (USD 25 million). It is assumed that GoG programs receive the funding they need to function effectively. Figure 1-3 with the abovementioned data is presented below:

Figure 1-3: Finance Gap breakdown (million USD)

As government finances are limited and subject to competing demands, a growing portion of funding will likely come from the private sector and donors. However, given the "public good" nature of biodiversity conservation, significant government funding is appropriate and will continue to be needed. The State will also need to innovate and take the lead in creating the required enabling conditions for private sector investments within the constraints that it faces.[3]

This Biodiversity Finance Plan responds to the challenges associated with ensuring that biodiversity conservation is adequately resourced. It identifies priority biodiversity finance solutions (Box 2 describes the key financial results that are associated with biodiversity finance solutions), considers their feasibility and potential, and outlines broad next steps needed to move towards implementation.

The approach used in drawing up the Plan is described in Box 3. The Plan should be considered a living document and a contributor to an ongoing process of developing and encouraging biodiversity finance in the country. It should be updated as circumstances, needs and opportunities evolve.

3 For example, the constitutional ban on increasing taxes which limits the introduction of new environment-based tax categories as discussed in World Bank (2015).

Box 2. Defining biodiversity finance solutions

Finance solutions are a means of using one or more finance mechanism or instrument in a particular context, which results in the improvement of biodiversity conservation and management. Finance solutions can result in:

- An increase in funding, either from new sources (e.g. innovative finance) or existing sources
- Better spending of existing funds
- Reducing costs associated with biodiversity conservation and management
- Realigning neutral or harmful expenditure to be beneficial (such as adjusting agricultural subsidies to support green agriculture)

Finance solutions should speak to a particular context, addressing specific needs and challenges within that context.

As a result, the nine finance solutions were prioritized and outlined respectively.

(1) **'Improved state budget justification capacity at the Ministry of Environmental Protection and Agriculture (MEPA)':** As the Ministry of Finance of Georgia (MoF) seeks budget requests from the Ministry of Environmental protection and Agriculture (MEPA) with clearly outlined expected results and socio-economic impacts, this solution aims to developing capacity at MEPA to elaborate and present results-based budgets supported by powerful socio-economic justifications.

(2) **'Increasing the financial sustainability of the protected areas system through improved revenue generation from services':** The own revenues from different sources play a crucial role in supporting financial sustainability of the protected areas system in Georgia. This solution is focused on increasing the rate of own revenue growth through increased entrance/accommodation fees and concessions and other tourism services.

(3) **'Improving EIA quality, expertise and effectiveness':** An effective and well-functioning Environmental Impact Assessment (EIA) system can serve as an important prerequisite for biodiversity protection and mitigation of harmful impacts of economic activities. This solution is about adequate inclusion, assessment and evaluation of biodiversity aspect into the EIA process.

(4) **'Supporting a well-designed, appropriately scaled and enforced system of EIA fines':** A well designed and effective system of EIA fines could deter irresponsible behavior from Environmental Permit holders. This solution aims to set economically logical fine levels, develop a clear and easily enforced mechanism for issuing and collecting fines through amendments to legislation, and implementing the upgraded system.

(5) **'Creating an effective environmental and biodiversity damage remediation and compensation system':** This solution is about improving the methodology for damage calculation and criminal thresholds and support the completion of the Environmental Liability Law. These changes will improve the effectiveness of the environmental liability system by retaining more cases in administrative courts (vs criminal courts), increase payment rates and increase the effectiveness of penalties as deterrents for illegal activities.

(6) **'Review and update existing fees and quota system for the use of natural resources':** As the existing system for natural resources fees and quotas is limited in terms of the amount of fees charged, the number of species included, and the capacity to monitor and enforce collection regulations, this solution aims to review and revise the system of fees, quotas, and monitoring of renewable natural resources to establish an effective, equitable and sustainable system for commercial natural resource use.

(7) **'Professionalize the fuelwood industry':** The National Forest Agency (NFA) seeks to revise the harvesting system to improve sustainability, management effectiveness and financial cost recovery. The aim of this solution is to professionalize the fuel wood industry by converting the informal practice of social cutting into an efficient, sustainable and regulated system that satisfies fuel wood demand.

(8) **'Improving ecotourism offerings in state forest areas':** The National Forest Agency (NFA) seeks to identify and develop eco-tourism infrastructure and

services at exceptional sites in the forest estate. This solution aims to enhance institutional capacity of the NFA for developing sustainable tourism products, to develop and capture appropriate revenues, and to direct such revenues back towards sustainable forest management.

(9) **'Build country capacity for fundraising for priority nature conservation and management objectives':** Donations are an important source of financing for biodiversity and improving the level and targeting of donations can support achievement of conservation goals. This solution will build country capacity for fundraising that targets individuals, banks and other private companies, donors and IFIs through improved communication and fundraising skills in environmental organizations.

Box 3. Approach to Biodiversity Finance Plan Development

The approach to the Biodiversity Finance Plan development consisted of the following steps:

1 - Review reports and materials with relevance to biodiversity finance solutions currently in use or under consideration for use in Georgia and internationally.

↓

2 - Review all of the NBSAP costable actions.

↓

3 - Broadly identify an initial list of biodiversity finance solutions which show some level of potential. Link them to the NBSAP costable actions where possible.

↓

4 - Broadly assess the inital list of solutions in terms of their feasibility, acceptability, likely revenue or cost cutting potential.

↓

5 - Screen the initial list of solutions in order to prioritise those with the highest potential.

↓

6 - Conduct detailed assessments of the prioritised solutions focusing on their feasibility, key responsible actors, social, economic and political implications.

↓

7 - Develop action plans to implement the prioritised solutions.

Note that Step 2 and Step 3 were not strictly sequentially as work on generating an initial list of finance solutions was carried out while the actions for the NBSAP were being costed.

The assessment was done by the BIOFIN team in close collaboration with key stakeholders and with support from the global UNDP BIOFIN team and an international expert. BIOFIN Georgia is guided by a national Steering Committee, and receives technical input from a national Technical Reference Group.

Stakeholder engagement was used extensively at all stages of the process. It was carried out through one-on-one engagements and through stakeholder workshops. Stakeholders provided valuable inputs especially in terms of identifying finance solutions, prioritising solutions and assessing feasibility particularly in terms of key nuances and potential pitfalls.

The remainder of the report is structured as follows:

- **Section 2** provides a brief investment case for biodiversity and ecosystem services outlining the importance and value of biodiversity especially from a socio-economic perspective and in the pursuit of the Georgia's key policy goals.
- **Section 3** introduces the individual biodiversity finance solutions and consolidates them into an integrated plan, providing clarity on key links and synergies between solutions and over-arching enabling factors. Financial benefit projections for the Plan are also provided.
- The individual finance solutions are outlined in more detail in **Section 4,** focusing on the context, objectives, likely finance results, risks and key next steps towards implementation of each finance solution.
- **Section 5** concludes with recommendations.

2. THE INVESTMENT CASE FOR BIODIVERSITY

Investment in Georgia's biodiversity, and the ecosystem services supported by it, provides significant opportunities to support the country's development path and underpins major sectors of the economy. This section provides a brief investment case for biodiversity and ecosystem services which considers the alignment of such investment with overall socio-economic development planning and how they support livelihoods and key sectors in the economy. It includes a consideration of their role in disaster risk reduction, climate change adaption and mitigation and the implications of allowing further ecological degradation to occur.

2.1 Alignment with overall socio-economic development planning

The Socio-economic Development Strategy for Georgia ("Georgia 2020"), the 2015 state program "For a Strong, Democratic, Unified Georgia" and the Regional Development Programme of Georgia 2010–2017 are the key strategies which focus on overall socio-economic development and economic growth. The alignment or compatibility of investments in biodiversity protection and ecosystem services with these strategies is clear as discussed below.

The **Socio-economic Development Strategy for Georgia** provides guidance on the key actions required for the country to achieve its development goals. Its development vision outlines three main principles upon which economic policy is based. The first is ensuring fast and efficient economic growth driven primarily by the development of the real (productive) sectors of the economy in order to create jobs and reduce poverty. The second focuses on the need for the implementation of economic policies that facilitate inclusive economic growth. The third principle focuses calls for "rational use of natural resources, ensuring environmental safety and sustainability and avoiding natural disasters during the process of economic development." Sustainable use and management of natural resources including biodiversity is therefore clearly an integral part of the Strategy.

The Strategy makes special mention of the importance of forest ecosystems noting that their protection and rational use will significantly improve the population's socio-economic standing, particularly as "the development of agriculture, hydro-electric power generation, tourism and other sectors of the economy is directly linked to the health of the country's forest ecosystems." It calls for

modern forest management that takes into consideration the need to preserve forest biodiversity, its recreational, water regulatory and soil protection functions thereby increasing economic benefits through the improvement of forest ecosystem services.

The government response to key legislative challenges, that need to be overcome in order to achieve the country's socio-economic development goals, is outlined in the **2015 state program "For a Strong, Democratic, Unified Georgia"**. With respect to environmental challenges, the program highlights the need for various reforms and initiatives in support of sustainable socio-economic development. It emphasises the need for general environmental protection and rational use of natural resources. The following objectives are particularly relevant to biodiversity (and provided guidance to this Biodiversity Finance Plan):

- Forest sector reform to introduce a sustainable forest management system.
- Gradual implementation of an Integrated Water Resource Management System based on the European principles of basin management.
- Improvement of the environmental permitting system and the introduction of new permit regulations in Environmental Impact Assessments along with the introduction of a Strategic Environmental Assessment system at sector level.
- Upgrading of the natural resource license system to ensure management and rational use of natural resources.
- Development of mechanisms for the sustainable use of land resources to reduce soil erosion, prevent desertification and preserve soil fertility whilst honouring commitments under the UN Convention to Combat Desertification.
- Implementation of the National Biodiversity Strategy and Action Plan for 2014-2020.
- Expansion of the network of protected areas, improved protected areas management and activities aimed at developing protected areas and promoting ecotourism.

At a regional planning level, the **Regional Development Programme of Georgia 2010–2017** was developed to enhance the conditions for regional economic development and the improvement of living standards. The Strategy defines medium-term priorities and objectives, as well as the means for achieving them. The key objectives are to improve municipal and regional infrastructure services (water supply, water drainage, waste management, roads, etc.) and institutional capacity at the regional and local levels. Environmental protection is, in general, integrated into these regional strategies.

Considered at a global level, investing in the management and protection of biodiversity and ecosystems is an investment in sustainable development and supports the country's progress towards achieving the **United Nations Sustainable Development Goals (SDGs)**. Figure 2-1 demonstrates the role of biodiversity in supporting the achievement of a number of the SDGs.

Figure 2-1: Biodiversity and ecosystem services can help to achieve the Sustainable Development Goals

Source: *Cumming et al. (2017)*

2.2 Support key economic sectors and livelihoods

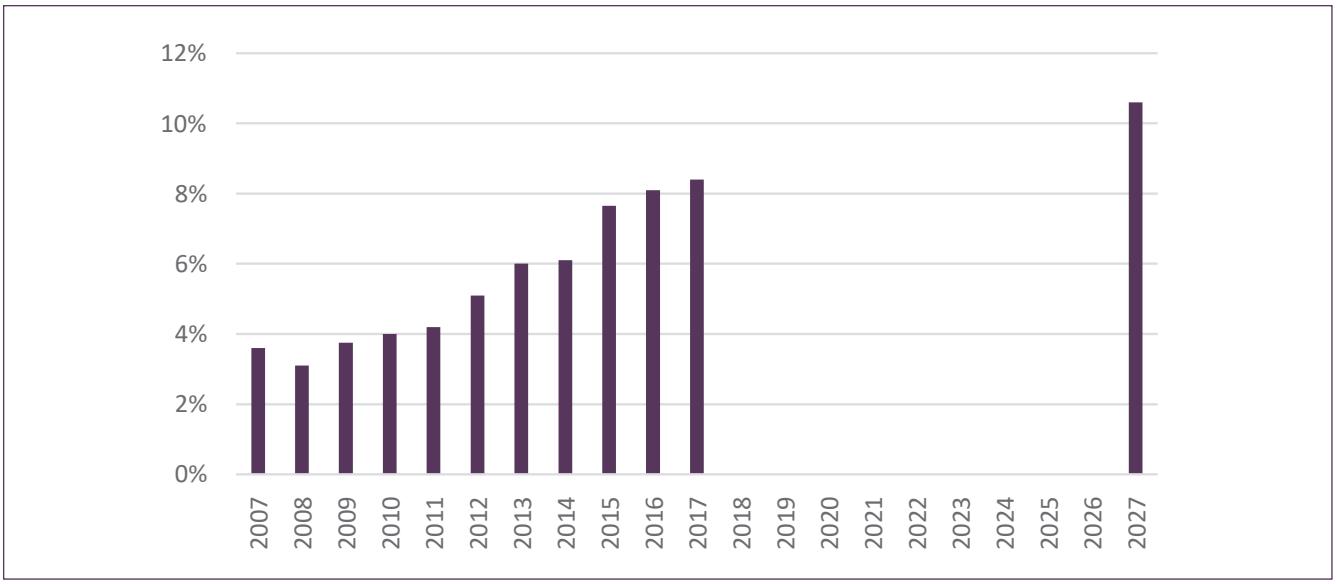
Biodiversity and intact ecosystems are able to provide a sustainable flow of benefits to support livelihoods. Basic needs such as food security, building materials and clean water bring benefits to all, and the impoverished in particular. A number of key sectors in the Georgian economy are highly dependent on biodiversity and ecosystem services. These include the tourism, agriculture, water provision and hydroelectric energy and forestry sectors which are discussed below bearing in mind that the latter is also a provider of significant ecosystem services. Support for disaster risk reduction and climate change adaptation and mitigation is also discussed which provides benefits for the overall economy and society.

2.2.1 Tourism

Tourism is a major sector in Georgia's economy which continues to experience exponential growth. According to the World Travel and Tourism Council (WTTC) it accounted for 8.1% (or USD1.16 billion) of the national GDP in 2016 and is forecast to continue growing significantly (see Figure 2-2). This makes it a more significant sector relative to the role it plays in neighbouring countries such including Turkey (4.1% of GDP), Armenia (3.8% of GDP) and Russia (1.3% of GDP). In addition, travel and tourism directly supported 122,000 jobs in Georgia – an amount that is expected to rise to 165,000 jobs over the next 10 years (WTTC, 2017).

The nature based tourism sub-sector is an important part of the overall package that attracts tourists to Georgia. Some indication of its potential and role can be inferred from visitation rates to protected areas in Georgia. These have increased from less than 6,000 in 2005 to 303,700 in 2011 and up to 954,400 in 2017. Solid momentum has thus been created in nature based tourism particularly around protected areas. However, continued success requires investment in well-maintained natural tourism assets with healthy biodiversity and ecosystems.

Figure 2-2: Growth of the Georgian tourism sector's contribution to GDP



Source: WTTC (2017)

2.2.2 Agriculture

Even though its contribution to GDP has decreased to below 10%, agriculture remains an important sector prioritised by government given its importance in poverty relief and rural livelihoods. It provides employment to over 50% of the population and contributes to about 25% of exports. According to the agricultural census in 2005, most of the agricultural holdings in Georgia were family farms, dominated by small private farms (93% with less than 2 hectares of land). Even though the cash income of the households engaged in agriculture is low, the sector provides an important safety net for most of the rural population, and its performance is crucial to poverty reduction (Kvaratskhelia and Shavgulidze, 2011). Primarily through the wine industry, the sector also makes a contribution to tourism.

Agriculture's dependence on key ecosystem services and biodiversity is particularly direct. In this regard, Power (2010) observes that:

"agroecosystems depend strongly on a suite of ecosystem services provided by natural ecosystems. Supporting services include genetic biodiversity for use in breeding crops and livestock, soil formation and structure, soil fertility, nutrient cycling and the provision of water. Regulating services may be provided to agriculture by pollinators and natural enemies that move into agroecosystems from natural vegetation. Natural ecosystems may also purify water and regulate its flow into agricultural systems, providing sufficient quantities at the appropriate time for plant growth."

Box 4: Wine Industry in Georgia

There is a strong tradition of producing wine in Georgia. Georgia, with 40,000 hectares of vineyards, has over 525 indigenous grape varieties, of which 45 are commonly used for wine production. Wine export is increasing dramatically since early 2000ies. In 2017, Georgia has exported a record number of wines over the last 30 years, totally, 76.7 million bottles (0,75l) to 53 countries worldwide. The total revenue generated from wine export in 2017 reached USD 400 million.

The link between higher levels of pollinator abundance and diversity and increased crop yields has been outlined by research including that of Greenleaf and Kremen (2006). It has also been recognised that wild pollinators act as a form of insurance or partial substitute for farmers in the event of an unexpected decline in commercial bee populations (for example, due to a disease outbreak) (Vanbergen et al., 2014). Pest or biological control services essentially reduce or control populations of pest insects and weeds in agriculture, thereby reducing the need for often costly pesticides. Healthy, biodiverse ecosystems also support the resilience of agriculture through the genetic diversity they supply. Such ecosystems play a key role in securing natural populations of crop wild relatives (CWRs) thereby boosting resilience and increasing the chances of being able to adapt to climate change. They are increasingly at risk from land conversion, climate change and other factors thereby putting agriculture at risk. For example, CWRs of cereals, including relatives of wheat and millet, which occur in Georgia's arid or semi-arid lands, are severely affected by over-grazing and desertification (UNEP and WWF, 2013).

2.2.3 Water supply and hydroelectricity production

The link between watershed protection and healthy ecosystems is well-established. In essence, natural habitats support natural water flows which ensure low levels of sedimentation and better water quality. They also regulate or smooth out flows over time reducing peak flows associated with higher flood risks while increasing low flows thereby ensuring greater water availability or supply during dry seasons. Through these mechanism, they play a key role in adaptation to climate change.

Healthy ecosystems are highly supportive of dams built for water supply and/or hydroelectric purposes. As noted in UNEP and WWF (2013), The development of Georgia's hydropower sector is highly dependent on services provided by mountain ecosystems, particularly watershed services. Erosion control and the regulation of water flow are indispensable to ensure the requisite quality and quantity of water needed to produce hydropower. An increase in sedimentation of rivers due to land erosion may result in reductions in the water storage capacity of dams and the deterioration of turbines, leading to significant losses for hydropower companies. The link between watershed management and energy security can thus be made. Although, there is no data available in Georgia, for example, in China, Guo et al. (2000) estimated that the water flow regulation provided by conserved natural forest habitats increased the value of electricity production at the Gezhouba hydroelectric plant by almost US$1 million – a value comparable to income from timber extraction in the watershed area.

Georgia is one of the most sensitive places among the world's mountainous regions in terms of natural disasters as noted in Socio-economic Development Strategy for Georgia. The Global Facility for Disaster Reduction and Recovery (GFDRR) country profile on Georgia categorises Georgia as being "highly exposed" to a wide range of natural hazards. Flooding, in particular, occurs frequently and has compounding effects, as over half of the country is predisposed to landslides. It is estimates that over the last four decades, 70 percent of the country experienced some form of natural hazard with total economic losses over the period exceeding $14 billion.[4]

Disaster risk reduction is a cross-cutting national priority that benefits all economic sectors and society as a whole. The maintenance of healthy non-degraded ecosystems can play a significant role in reducing disaster risks. As noted above, natural ecosystem regulate or smooth out water flows over time thereby reducing the severity of peak flows associated with higher flood risks.

Given the above benefits, most countries practice watershed management to varying degrees as a component of overall water resource management. The Socio-economic Development Strategy for Georgia recognises this and aims to take up the challenge of implementing Integrated Water Resources Management (IWRM) favoured by the EU. River Basin Management Plans would, for example, form part of such management initiatives and would pay attention to water allocation, conservation and watershed management.

4 See https://www.gfdrr.org/georgia

2.2.4 Forestry

Georgian forests cover more than more than 40% of country's area and provide a number of vital ecosystem services which are not reflected in GDP.[5] While these services may be seen as "free of charge", they are nevertheless of significant value. As per the findings of the TEEB Scoping Study (UNEP and WWF, 2013):

"The country's forests are an important source of energy: more than 80% of rural households in the country use fuel wood extracted from nearby forests for heating and cooking (EPR, Georgia, 2010). In addition, many people living near forests today still use timber as building materials. Forests provide commercial timber for domestic markets, in particular construction and furniture. The country also supplies timber to international markets in neighbouring countries including Armenia, Azerbaijan, Turkey and Iran. In addition to timber and firewood production, forests in Georgia serve multiple environmental purposes. They serve as a habitat for wildlife and carbon sinks, prevent soil erosion and landslides, and they provide watershed management. Georgian forest ecosystems also produce a great variety of non-timber forest products (NTFPs) such as fruit, berries, nuts, mushrooms, medicinal plants, honey and decorative plants. Many of these products are a common component of the diet of the rural population. These products are also marketed to generate supplemental income for rural households (Foster-Turley & Gokhelashivili, 2009).

Forests also play a critical role in the formation of drinking water resources in Georgia. In many rural areas, especially in the mountains, natural springs are the primary source of drinking water supply. Cities also depend on forests for water. For example, Batumi, the largest city on the Black Sea coast of Georgia with a population of 180,000 (2008 census), hosting more than a million tourists annually, receives drinking water from the Mtirala National Park (MNP) (Flores & Adeishvili 2011)."

The 2015 World Bank Country Environmental Analysis provides an estimate of the value of forest in Georgia at between USD1,100 and USD2,100/ha/year excluding climate services (World Bank, 2015). This is based on global estimates of the value of forest ecosystem services which were USD1,100/ha/year for temperate forests and USD2,100/ha/year for tropical forests.

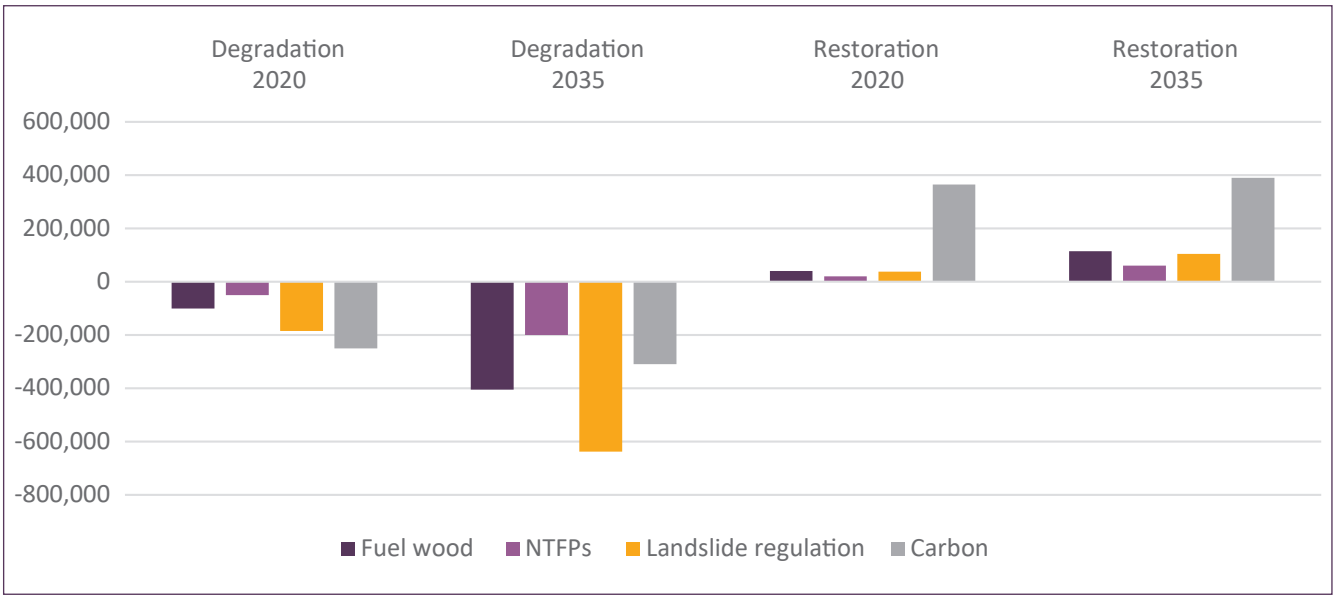
Building the national TEEB scoping study, a regional TEEB study was conducted for the forests which cover rough two thirds of the Adjara Autonomous Republic. It focused on the valuation of four key services, namely fuel wood, non-timber forest products (NTFPs), carbon storage and landslide regulation although it recognised the importance of other services such a tourism and recreation, hunting, fishing and water provision. The values associated with a Degradation Scenario and a Restoration Scenario were assessed relative to the Business-As-Usual Scenario to understand how the provision and value of ecosystem services change with changes in forest management.[6]

Figure 2-3 shows that the negative implications of the Degradation Scenario would be serious. There would be an annual loss in welfare of close to USD1.3 million in 2035 (more than 50% of this loss is due to increased landslide damages). Under the Restoration Scenario, Adjarians would experience an annual benefit valued at over USD300,000 in 2035 mainly due to increased provision of fuel wood and reduced landslide damages. An additional benefit of almost USD400,000 per year could be associated with restoration if the additional carbon captured by increased forest cover could be certified and carbon credits sold (Brander et al., 2016).

5 The officially quantified contribution of forestry to the national economy, at only 0.3% of GDP, is a particularly good example of how official statistics such as GDP can fail to provide a true reflection of value.

6 The Degradation Scenario represents a region in crisis where over-exploitation results in an 18% decline in forest cover close to population centres by 2035. The Restoration Scenario assumes the full implementation of the Adjara Forest Agency Strategic Plan (2015) whereby forest cover in the vicinity of villages is increased by 16% by 2035 (Brander et al., 2016).

Figure 2-3: Changes in annual ecosystem service values from Adjaran forests (USD/year)



Source: Brander et al. (2016)

3. THE BIODIVERSITY FINANCE PLAN

This Biodiversity Finance Plan presents a comprehensive and coherent national approach to biodiversity finance that encompasses a full suite of finance solutions, well beyond the mobilization of new resources. The Plan is a living document that builds on progress already made in Georgia to suggest targets and steps that expand the country's biodiversity finance agenda and achieve national biodiversity targets. This offers a means to foster action and support partnerships for investing in biodiversity by deepening the understanding of a range of solutions and by framing realistic action points. It provides clarity on links and synergies among solutions, finance outcomes, implementation roles and the contribution of biodiversity finance towards sustainable development. The Plan is composed of:

1. A prioritization of finance solutions based on a rigorous and participatory selection process;
2. A systematic approach to address financial needs, identify emerging opportunities and prioritize key biodiversity outcomes;
3. Concise technical proposals to help operationalise prioritized biodiversity finance solutions, including required steps and identification of risks; and
4. Consolidated estimates of the expected finance results where possible.

The Plan will require a wide range of technical capacities from multiple institutions and stakeholders. Implementation will require a coordinated effort from a group of government, civil society (NGO), private and development partners. The intention is for the biodiversity sector and other key parties to own the Plan and support its implementation. The work and monitoring of the Plan will be coordinated by MEPA using existing collaboration frameworks.

The remainder of this section describes the individual priority finance solutions, thereafter consolidating them into an overall plan and presenting consolidated finance results.

3.1 The biodiversity finance solutions

The prioritisation of finance solutions started with the generation of an extensive initial list of 49 potential solutions that were subjected to two rounds of screening (Annex 2 contains more details on the approach to screening and its outcomes). This resulted in the following nine priority solutions that are the subject of this Plan:

1. Improving state budget justification capacity at the Ministry of Environmental Protection and Agriculture (MEPA)

2. Increasing the financial sustainability of the protected areas system through improved revenue generation from services
3. Improving EIA quality, expertise and effectiveness
4. Supporting a well-designed, appropriately scaled and enforced system of EIA fines
5. Creating an effective environmental and biodiversity damage remediation and compensation system
6. Reviewing and updating existing fees and quota system for the use of natural resources
7. Professionalize the fuelwood industry
8. Improving ecotourism offerings in state forest areas
9. Building country capacity for fundraising for priority nature conservation and management objectives

Each solution is described briefly below including the solution's overall aims, key objectives and what implementation would entail:

1. Biodiversity contributes significantly to the economy through nature based tourism, agriculture, hydro resources, and diverse natural products. Currently over 60% of finance for biodiversity in Georgia comes from the national budgets and greater funding levels are needed. The Ministry of Finance (MoF) seeks budget requests with clearly identified results and economic impacts. This solution aims to develop capacity at MEPA to produce and present well-formulated results-based budgets that meet the requirements of MoF and are supported by powerful socio-economic justifications. This will result in increased state budget allocation to priority biodiversity actions. The solution requires technical assistance, capacity development and research facilitation elements at MEPA.

2. The achievement of Protected Areas' primary goal – biodiversity conservation – is dependent on significant financial expenditures and current financing for PA management is low. Protected Areas' (PAs) own revenues[7] from sources such as entrance fees, accommodation fees, concessions and tourist services charges play an important role in supporting their financial sustainability. The Agency of Protected Areas (APA) have increased their own revenues by an average of 40% per year over the last 4 years primarily through the introduction of entrance fees for access to tourist caves and other built infrastructure around natural sites. The aim of this solution is to increase the rate of own revenue growth for protected areas – a particularly important imperative given to government budget constraints – through increased entrance fees and enhanced infrastructure and other tourism services. The solution entails drawing up sustainable tourism infrastructure development plans for key protected areas to be financed by government, donors and, potentially, financial institutions. New infrastructure will be developed to generate financial returns by capturing entrance and user fees. Revenues will support the entire protected areas system's management goals.

3. An effective and well-functioning Environmental Impact Assessment (EIA) system can protect biodiversity and mitigate harmful impacts of economic activities. The Georgian government is currently improving the EIA process and MEPA is seeking better integration of biodiversity and ecosystem services into the EIA policy. This solution aims to ensure adequate assessment and evaluation of biodiversity into the EIA process. The result is avoided loss of biodiversity and reduced future cost of restoration from planned economic activities. The activities would include: (a) Biodiversity specific guidelines for EIA process, (b) Biodiversity checklists for MEPA staff to assess/revise submitted EIA reports and (c) Appropriate capacity building activities.

4. The current system of fines for EIA violations is not effective because the levels of fines are too low for a majority of business sizes and sectors, fines are appealed in court and often require 3-5 years of litigation, and a certain proportion of fines remain unpaid. A well designed system of EIA fines, appropriately scaled and enforced, could deter irresponsible behaviour from Environmental Impact Permit holders. This solution aims to set economically meaningful fine levels, produce a clear and easily enforced mechanism for issuing and collecting fines through amendments to

7 These forms of revenue are also sometimes referred to as "site-based" revenue.

legislation, and implementing the revised system. The result will be a system that acts as a realistic deterrent to would-be offenders and incentivises sustainable practices. The specific actions include: (a) reviewing the existing fines system (b) proposing a reformed fine system and amounts (c) implementing and refining the updated system.

5. Over the last four years GEL 140 million in administrative and criminal damages have been submitted for prosecution, however a small percentage of these damages have been paid. Judicial delays and complexity for calculating damages to the environment limits the effectiveness of damages as incentives for responsible behaviour. The Department of Environmental Supervision (DES) is currently reviewing its system for environmental damages. In addition, the DES is developing the Environmental Liability Law (ELL) which will introduce the concept of major environmental damages. This solution will improve the methodology for damage calculation and criminal thresholds and support the completion of the ELL. These changes will improve the effectiveness of the environmental liability system by retaining more cases in administrative courts (vs criminal courts), increase payment rates and increase the effectiveness of penalties as deterrents for illegal activities. The specific steps required include finalisation and submission of ELL, revision of damage calculation methods, and changes to thresholds for criminal proceedings.

6. A wide range of renewable natural resources (including Non-timber forest products, NTFPs) are used for commercial and local use. The current system for fees and quotas is limited in terms of the amount of fees charged, the number of species included, and the ability of key organizations to monitor and enforce collection regulations. This solution aims to review and revise the system of fees, quotas, and monitoring of renewable natural resources to establish an effective, equitable and sustainable system for commercial natural resource use. The impact of this solution will be increased resources available for monitoring, increased sustainable revenues for local governments, improved sustainability of natural resource use and the ability to track certificates of origin for natural products. The necessary actions include reviewing the current system of fees and quotas, assuring strong scientific background on sustainable harvesting levels, monitoring systems from APA, NFA and other organisations, revising system structures, fees and quotas, identifying options for retaining fees for improved monitoring, and tracking / verification of commercial use of natural products. It would also seek to ensure that a greater proportion of fee revenues are re-invested in natural resource protection activities by local authorities.

7. The current system for harvesting and sale of fuel wood from natural forests is an informal (and largely illegal) system, complex to administer and may be leading to unsustainable harvesting practices. The National Forest Agency (NFA) seeks to revise the harvesting system to improve sustainability, management effectiveness and financial cost recovery. The aim of this solution is to professionalize the fuel wood industry by converting the informal practice of social cutting into an efficient, sustainable and regulated system that satisfies fuel wood demand. This will result in improved administrative and operational efficiencies, sustainable harvesting levels, and increased capture of fees for the NFA. Required steps include determining key criteria for system (affordable price, equity, etc.), detailed feasibility and options study, proposed structure of system and revision of regulations (if required), piloting and scaling.

8. Forest areas provide a large range of opportunities for sustainable and nature based tourism which is rapidly expanding. The National Forest Agency (NFA) seeks to identify and develop ecotourism infrastructure and services at exceptional sites in the forest estate. This solution aims to enhance institutional capacity of the NFA for developing sustainable tourism products, to develop and capture appropriate revenues, and to direct such revenues back towards sustainable forest management. The impact of this solution will be an increase in ecotourism destinations and an increase in sustainable financing for forest ecosystems. The required steps include designation of a responsible party at the NFA to oversee this process, a study to

identify high value tourist locations and potential products, design of investment plans for priority sites and projects, development of revenue strategy (concession plan, entrance fees, revenue sharing with local communities, etc.), engaging with banks and other finance institutions for financing of pilot sites, and scaling of programme.

9. Biodiversity conservation and sustainable management produces public goods and services that benefit society and are valued by a wide range of individuals, companies, and donors. As such, donations are an important source of financing for biodiversity and improving the level and targeting of donations can support achievement of conservation goals. This solution will build country capacity for fundraising that targets a) individuals through crowdfunding and other web-based tools, b) banks and other companies through Corporate Social Responsibility (CSR) programs, and c) these and other "classic" donors and international finance institutions through improved communication and fundraising skills in environmental organisations. The impact of this solution will be increased financial flows to conservation NGOs, government agencies, and other groups. Although this solution will evolve over time, initial actions include the following: develop a pilot program for the Tbilisi Zoo targeting individuals and corporate donors, creating an online donation platform of fundable projects based on NBSAP priorities, and train organizations for developing specific fundraising and PR campaigns for biodiversity conservation actions.

3.2 An integrated plan

The individual finance solutions are best understood as parts of an overall integrated plan. This section addressed integration, providing clarity on key links and synergies between solutions. Structuring elements best suited to this include (1) biodiversity outcomes and (2) the main characteristics of each solution focused on the finance instrument type, source of finance and lead agent.

3.2.1 Biodiversity outcomes

The finance solutions can classified according to their biodiversity outcomes for alignment with the biodiversity conservation sector and wider government budgeting and operational processes. The five strategic goals of the NBSAP (see Box 5) were chosen for this purpose as the most appropriate reflections of the achievement of overall biodiversity outcomes. Table 3-1 shows which NBSAP strategic goals are supported by each solution. All five goals are supported to some degree with goal two (reducing the direct pressures on biodiversity and promoting sustainable use) being slightly more prominent in relative terms.

Box 5: The strategic goals of the NBSAP:

1. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
2. Reduce the direct pressures on biodiversity and promote sustainable use.
3. Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.
4. Enhance the benefits to all from biodiversity and ecosystem services.
5. Enhance implementation through participatory planning, knowledge management and capacity building.

Table 3-1: The links between finance solutions and NBSAP strategic goals

Solution name	NBSAP Strategic Goals supported
Improving state budget justification capacity at the Ministry of Environmental Protection and Agriculture (MEPA)	Strategic Goal 1 to 5
Increasing the financial sustainability of the protected areas system through improved revenue generation from services	Strategic Goal 3
Improving EIA quality, expertise and effectiveness	Strategic Goal 2 and 5
Supporting a well-designed, appropriately scaled and enforced system of EIA fines	Strategic Goal 2 and 5
Creating an effective environmental and biodiversity damage remediation and compensation system	Strategic Goal 1 and 2
Reviewing and updating existing fees and quota system for the use of natural resources	Strategic Goal 2
Professionalize the fuelwood industry	Strategic Goal 1 and 2
Improving ecotourism offerings in state forest areas	Strategic Goal 1 and 2
Building country capacity for fundraising for priority nature conservation and management objectives	Strategic Goal 3 and 4

3.2.2 Characterising the solutions

The finance solutions cover a variety of instruments, finance sources and lead agents. This diversity between solutions, presented in Table 3-2, should assist in spreading risk within the overall Biodiversity Finance Plan. Market instruments are the most prominent, with five solutions falling primarily under this broad category. These are followed by solutions that are primarily regulatory (three solutions) and fiscal instruments (one solutions). Regarding sources of increased biodiversity finance/funding (or cost reductions), private companies and households represent the most prominent primary source of finance. Government thus has opportunities

to leverage private resources in a number of ways. For the majority of solutions, government would need to lead implementation through MEPA and its agencies such as APA and the NFA bearing in mind that many of the finance solutions will only be successful if there are strong partnerships with the private sector and NGOs.

Table 3-2: Finance solutions classified by instrument type, source of finance and lead agent

Solution name	Primary instrument type	Primary source of finance	Lead agent
Improving state budget justification capacity at the Ministry of Environmental Protection and Agriculture (MEPA)	Fiscal	State Government	MEPA
Increasing the financial sustainability of the protected areas system through improved revenue generation from services	Market	Private households	APA
Improving EIA quality, expertise and effectiveness	Regulatory	Private companies	MEPA
Supporting a well-designed, appropriately scaled and enforced system of EIA fines	Regulatory	Private companies	MEPA; BIOFION team
Creating an effective environmental and biodiversity damage remediation and compensation system	Regulatory	Private companies	MEPA
Reviewing and updating existing fees and quota system for the use of natural resources	Market	Private companies and households	MEPA
Professionalize the fuelwood industry	Market	Private households	NFA; MEPA
Improving ecotourism offerings in state forest areas	Market	Private companies and households	NFA; MEPA
Building country capacity for fundraising for priority nature conservation and management objectives	Grant/donations	Private companies and households	Tbilisi Zoo

3.3 Financial benefit projections for finance solutions

In projecting the financial benefits of the finance solutions, it is important to recognise the substantial uncertainty around the effectiveness with which solutions would be implemented, the effectiveness of enabling factors required for success, and the state of the broader economy. Nevertheless, where possible,

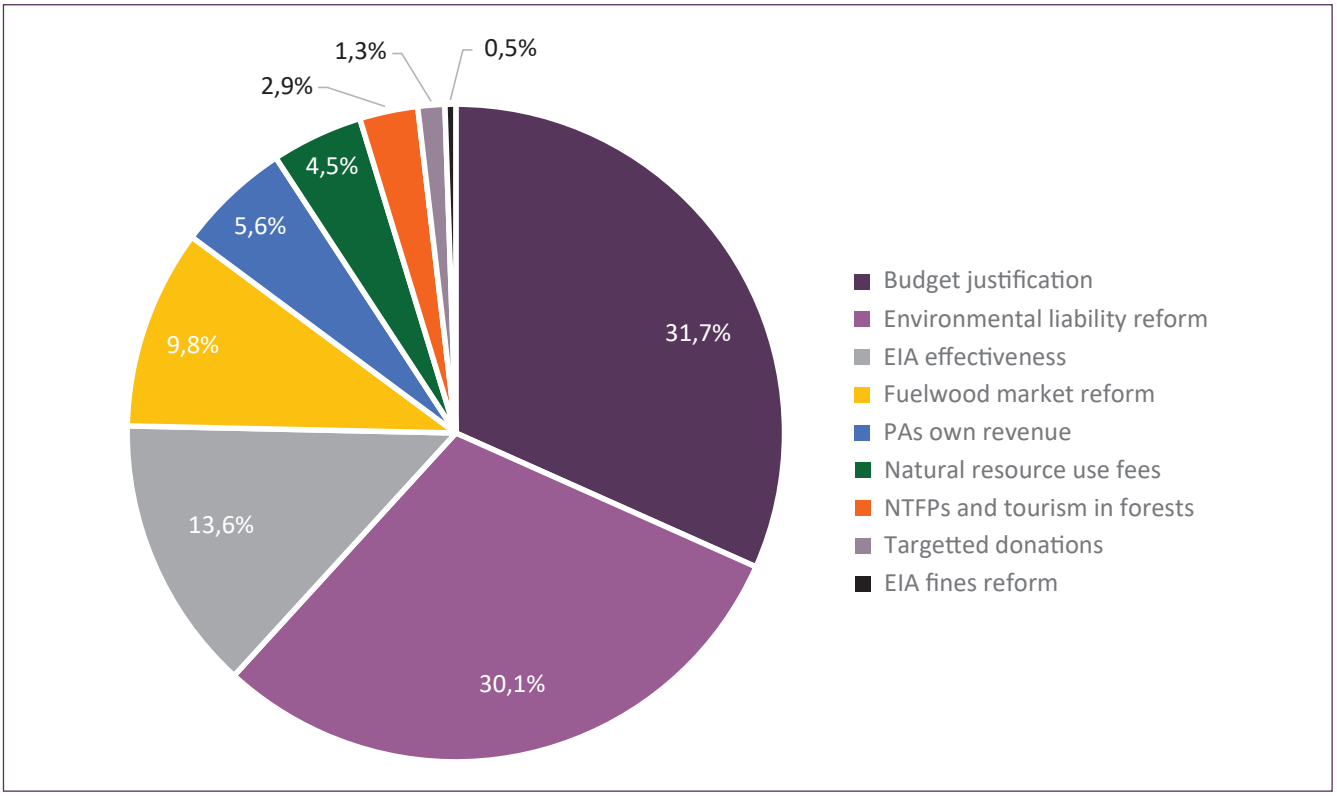
indicative estimates of potential financial benefits remain a valuable tool for planning. The net financial benefits (i.e. revenue or avoided expenditure minus implementation costs) associated with the implementation of the nine prioritized solutions were projected over the next 10 years and then consolidated (see Table 3-3). It is best to view these projections as the financial targets of the Plan as they show an estimate of what is possible if the solutions succeed. Up-front investments in protected areas, needed to generate increase revenues, would result in relatively moderate net outflows in the first three years. Thereafter, annual net financial gains would build from GEL15.9 million in 2021 climbing to GEL24.6 million by 2023 and ending at GEL47.6 million in 2027. Total cumulative net financial gains over a 10 year period would amount to approximately GEL160 million in current terms (un-discounted) which would make a highly significant contribution to reaching the country's biodiversity conservation goals.

Table 3-3: Annual and total cumulative financial benefits per finance solution over a 10-year period

Finance solution	Net financial gain in current terms (GEL million)											
	2018	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*	*2025*	*2026*	*2027*	Total	
Budget justification	- 0.13	1.00	2.08	3.20	4.34	5.52	6.74	8.00	9.29	10.62	50.66	*31.7%*
PAs own revenue	- 11.06	- 17.97	- 23.45	5.34	6.76	8.25	- 3.63	12.09	14.71	17.96	8.99	*5.6%*
EIA effectiveness	0.2	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	21.7	*13.6%*
EIA fines reform	- 0.03	0.03	0.02	0.02	0.03	0.17	0.17	0.17	0.17	0.17	0.85	*0.5%*
Environmental liability reform	- 1.00	2.60	3.84	3.84	5.20	5.20	6.44	6.44	7.80	7.80	48.16	*30.1%*
Natural resource use fees	0.13	0.04	0.32	0.48	0.64	0.80	0.96	1.12	1.36	1.60	7.19	*4.5%*
Fuelwood market reform	0.11	0.27	0.48	0.73	1.05	1.44	1.91	2.49	3.18	4.02	15.70	*9.8%*
NTFPs and tourism in forests	0.08	0.15	0.19	0.27	0.38	0.46	0.57	0.69	0.84	0.96	4.58	*2.9%*
Targeted donations	- 0.50	- 0.38	0.20	0.40	0.40	0.40	0.40	0.40	0.40	0.40	2.12	*1.3%*
Total	**- 12.42**	**- 13.56**	**- 15.16**	**15.85**	**20.79**	**24.62**	**16.35**	**34.58**	**41.35**	**47.53**	**159.94**	***100%***

Figure 3-1 shows the relative contribution of each finance solution to total financial gains over 10 years. Improved state budget justification contributes the largest share to this total at 32% followed by environmental liability reform (30%), increased EIA effectiveness (14%) and fuelwood market reform and professionalisation (10%). The remaining solutions contribute less than 10% each with protected areas own revenues (6%) and the review and updating of fees and quota system for the use of natural resources (5%) being most prominent. These relative contributions should be a factor in prioritising efforts across the individual solutions, bearing in mind the aforementioned inter-dependencies between solutions and key nuances. For example, EIA fines should primarily act as a deterrent and not as a way to generate direct financial gains for the state. Approximately 70% of total financial gains would be sourced primarily from private sector companies and households as outlined in Table 3-2, although the development of most of these finance solutions still require active government leadership and policy development.

Figure 3-1: Relative contribution of each solution to total net financial gains



4. BIODIVERSITY FINANCE SOLUTIONS

The individual finance solutions that make up the Biodiversity Finance Plan are outlined in more detail in this section. For each solution, the following elements were considered:

- Context of the solution.
- Objectives of the solution.
- List of suggested next steps needed for implementation, focused on the lead agents for each solution, along with key risks.
- The expected financial results of the solution, quantified to the degree possible, primarily in terms of increased revenues or decreased costs.

4.1 Improving state budget justification capacity at the Ministry of Environmental Protection and Agriculture (MEPA)

Biodiversity contributes significantly to the economy through nature based tourism, agriculture, hydro resources, and diverse natural products. Currently over 60% of finance for biodiversity in Georgia comes from the national budgets and greater funding levels are needed. The Ministry of Finance (MoF) seeks budget requests with clearly identified results and economic impacts. This solution aims to develop capacity at MEPA to produce and present well-formulated results-based budgets that meet the requirements of MoF and are supported by powerful socio-economic justifications. This will result in increased state budget allocation to priority biodiversity actions. The solution requires technical assistance, capacity development and research facilitation elements at MEPA.

The case for this finance solution

- Biodiversity in Georgia is important public asset which provides valuable goods and services to the population justifying strong levels of government funding.
- A number of sectors of the Georgian economy (tourism, agriculture, HPPs, mining etc.) are highly dependent on biodiversity goods and services. For examples, with a conservative assessment, at least 40% of the tourism industry is nature-based, which generated USD 443 million to Georgian economy in 2017.

- Biodiversity is not adequately funded. According to the biodiversity Financial Needs Assessment report, the total estimated financial gap for the period of 2018-2022 is USD 135 million.
- MEPA will produce more effective programme budgets based on better planning and socio-economic considerations.
- The MoF will receive more clear economic justification and is more likely to allocate optimal finance for MEPA which will result in improved biodiversity management and sustainable economic development.

4.1.1 Context

The BIOFIN Biodiversity Expenditure Review provides details of government budget allocations to the MEPA and other national ministries for biodiversity conservation and management. These allocations totalled approximately GEL 41 million in 2016 which is equivalent to 0.4% of Georgia's total government budget. The BIOFIN Financial Needs Assessment found that state and other budget allocations to biodiversity are inadequate. Something on the order of USD 368 million is needed for the period 2018 to 2022. Actual projected spending levels are significantly lower at USD 135 million – imply funding shortfalls of USD 233 million or roughly 63% (MEPA, 2018).

The state budgeting process is implemented in accordance with the 2009 State Budget Code of Georgia. This provided the legal basis for the switch to program or outcomes-based budgeting which was first operationalised in 2012. The first phase of working on the elaboration of the state budget has to be initiated before March 1st of each year. The government of Georgia identifies the list of spending units such as individual ministries or public entities who are engaged in the process of preparation of the Basic Data and Directions document. This is essentially the development master plan for the country and includes the information on medium-term macroeconomic and fiscal forecast, as well as information on main development requirements and priorities. The MoF requires the following information in budget requests:

- Information about the allocations and goals achieved within the previous 2 years period;
- Allocations and expected results within the priorities of the ongoing year;
- List of priorities for the next year with short descriptions, expected results and indicators;
- Medium-term budget of the priorities (in form of programs) for the upcoming years;
- Details of the number of employees at the spending units;
- The tentative details of the allocations for the upcoming years.

National budget allocation processes tend to place a strong emphasis on the achievement of socio-economic goals and are discussed within political frameworks. Motivations for increased budgets thus need to be explicit regarding positive consequences of investment or the negative impacts of inaction. Strong arguments for budget allocation will address the socio-economic benefits that would be delivered and show clear alignment with overall development policy. Often clear socio-economic benefits are generally absent or not explicit – especially with environment ministries. The very limited Georgian research that exists on the socio-economic value of biodiversity and ecosystem services that can be used for budget motivations is also a barrier to effective socio-economic arguments.

4.1.2 Objectives

Biodiversity conservation and management departments, agencies, and other government units can improve their national budget allocation levels if they produce effective budget justifications, clear results and outcomes, and appropriate indicators. This solution aims to achieve increased budget allocations by providing better budget justifications highlighting the ecosystem services and socio-economic value created or supported by biodiversity conservation. It would have the following elements or components:

1. Training for MEPA staff on budget justification using ecosystem services valuation and other tools.
2. Assisting MEPA to go through the process of drawing up an improved budget justification with a particular focus on ecosystem services and associated socio-economic arguments. This justification can then be used as an example or template for future justifications.
3. Addressing the limited Georgian research that exists on ecosystem services assessment and valuation, conservation incentives and other topics with relevance to biodiversity finance through improved coordination with key stakeholders (MEPA, universities, research institutions, NGOs). Examples of research with relevance here includes:
   a. The current and future potential socio-economic benefits associated with eco-tourism that is reliant on biodiversity assets.
   b. The benefits of key regulating ecosystem services which are largely 'hidden' (e.g. water regulation, pest control, pollination services that are not well recognised). Linking ecosystem services to government priorities.
   c. Highlighting the negative impacts of activities such as mining which are often detrimental to biodiversity.
4. Developing a clear vision for biodiversity conservation that is accessible and understandable to key decision-makers. This would essentially present a coherent and holistic picture of biodiversity in Georgia including its most pressing challenges and opportunities and how they relate to the country's economic development and resilience. It should help to equip decision-makers with the necessary understanding to be receptive to motivations for increased biodiversity budgets.

It is important to conduct a thorough scoping exercise at the outset which addresses the following:[8]

- Establishing whether there are key lessons to be learnt from past attempts by MEPA or others to increase budget allocations – what worked?, what didn't?, what circumstances played a role?, what specific audience was targeted?, etc.
- Identifying a few clear target audiences and engaging with them around considerations they find particularly relevant .
- Clarifying what is being asked for – i.e. defining prioritized results and actions requiring government funding (e.g. investments in protected areas, better EIA processes, greater law enforcement and monitoring efforts etc.).
- Determining what metrics or indicators would be important along with preferred methods for assessment and emphasis. For example, should selected application of cost-benefit analysis be considered to show the value of allocating additional budget to specific programmes or projects.
- Agreeing on whether and how to include cost efficiencies and own revenue generation considerations. For example, it may be particularly important to be able to show that progress is being made with spending existing funds more efficiently, or that efforts to generate more revenue are starting to bear fruit.

The success of this solution will be highly dependent on the dialogue with and engagement of the Ministry of Finance (MoF) and other decision makers (Parliament of Georgia, Ministry of Economy and Sustainable Development,

8 TEEB (2013) provides guidance on scoping for TEEB studies that use ecosystem services valuation and are sometimes used to make the case.

Ministry of Justice, Ministry of Regional Development and Infrastructure) involved with budget allocation. The production of analytical and communication material needs to be linked to the on-going budget processes.

Note that although this solution focuses on better motivations for government budgets, it would also produce material and allow for lessons to be learnt than can be applied when the MEPA motivates for donor funding.

4.1.3 Next steps

The MEPA will have to lead the process of motivating for increased budgets within the technical and political processes associated with budget allocations. The Table below outlines a proposed implementation scenario focused on next steps.

Table 4-1: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Consultations for outlining priority areas for biodiversity and definition of major issues for each priority area.	MEPA	MEPA; MOF; NGOs; International Organizations	2 months
2. Devise actions to address outlined major issues.	MEPA	MEPA; NGOs; International Organizations	1 month
3. Formulate medium term (2-5 years) biodiversity vision and action plan based on previous consultations.	MEPA	MEPA; NGOs; International Organizations	1 month
4. Outline received benefits and avoided costs for each activity/priority areas.	MEPA	MEPA; MOF; NGOs; International Organizations	1 month
5. Prepare budget programs for year 2019 based on outlined activities and actions (with timeframes, capital and operational budgets, role in overall vision, impact).	MEPA	MEPA; MOF	2 months
6. Meetings with the Ministry of Finance and related stakeholders to refine draft budget programs and associated motivations.	MEPA	MEPA; MOF	Throughout the process
7. Create a written guideline for future budget motivations based on achieved results and feedback from the Ministry of Finance.	MEPA	MEPA; MOF	1 month

Step	Lead party	Key Stakeholders	Indicative timescale
8. Capacity building of the Ministry of Environmental Protection and Agriculture staff for improving budget justification in the future (at least 3 training days for at least 15 staff members).	BIOFIN	MEPA	2 months
9. Addressing the limited Georgian research that exists on ecosystem services assessment and valuation, conservation incentives and other topics with relevance to biodiversity finance through improved coordination with key stakeholders.	MEPA	MEPA; universities; research institutions; NGOs	1 year

Expected duration of the implementation steps is up to twenty months.

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Availability of decision makers in the budget cycle to engage with biodiversity conservation authorities.
- Strength of the evidence of the social and economic benefits of biodiversity.
- The solution is linked to the maintenance of healthy public finance and to the performance of the Georgian economy.

4.1.4 Expected financial results

The targets for increased funding should be more accurately set at the outset of the budget motivation exercise and revised annually thereafter. In the interim, in order to include some approximate estimate of future gains, it was assumed that budget allocations could increase by 3% per year in real terms as a result of improved budget claims, outlining clear objectives and results in the context of overall biodiversity vision and priorities. This would increase budgets in real terms by GEL 1 million in 2019 increasing gradually to GEL 10.6 million by 2027. The first year cost of the solution would be approximately GEL 170,000 for workshops and expert remuneration for discussions with MEPA and MoF staff as well as leading NGO's to create vision and outline required actions. Years thereafter will require about GEL 50,000 annually for research, technical inputs and discussions, with this small ongoing cost maintained by MEPA.

4.2 Increasing the financial sustainability of the protected areas system through improved revenue generation from services

The achievement of Protected Areas' primary goal – biodiversity conservation – is dependent on significant financial expenditures and current financing for PA management is low. Protected Areas' (PAs) own revenues[9] from sources such as entrance fees, accommodation fees, concessions and tourist services charges play an important role in supporting their financial sustainability. The Agency of Protected Areas (APA) have increased their own revenues by an average of 40% per year over the last 4 years primarily through the introduction of entrance fees for access to tourist caves and other built infrastructure around natural sites. The aim of this solution is to increase the rate of own revenue growth for protected areas – a particularly important imperative given to government budget constraints – through increased entrance fees and enhanced infrastructure and other tourism services. The solution entails drawing up sustainable tourism infrastructure development plans for key protected areas to be financed by government, donors and, potentially, financial institutions. New infrastructure will be developed to generate financial returns by capturing entrance and user fees. Revenues will support the entire protected areas system's management goals.

The case for this finance solution

- Tourism contributed roughly 8.1% to the national GDP in 2016 and supported 122,000 direct jobs in the country (WTTC, 2017).
- Strong interest in nature-based tourism is illustrated by the rapid growth of PA visitors in the last few years.
- APA manages about 8.6% of the land area of Georgia and the PA estate could expand if adequate financing was available (NBSAP target 12% by 2020).
- The experience of APA thus far demonstrates the potential to grow its own revenues at significant rates.
- High levels of own revenues greatly enhance the financial sustainability of PA systems and allow adequate financing of conservation, research, and management.

4.2.1 Context

Opportunities for own revenue generation is particularly dependant on overall tourism growth in Georgia and visitor numbers to protected areas. As outlined in Section 2.2.1. the Georgian tourism sector has grown significantly to an estimated 3.5 million foreign arrivals annually (a 28% increase in 2017 compared to 2016, source: GNTA). Visitor numbers to protected areas have also grown more than three-fold over the last six years from 303,000

9 These forms of revenue are also sometimes referred to as "self-generated" or "site-based" revenue.

in 2011 to 954,000 in 2017 with much of the strongest growth occurring in the last three years (Table 4-2). The proportion of visitors which were foreigners increased from 16% in 2011 to 30% in 2017. This trend is particularly supportive of increasing own revenues given foreigners' generally higher willingness to pay for access to and activities within protected areas coupled with the trend of charging relatively higher fees for foreign tourists.

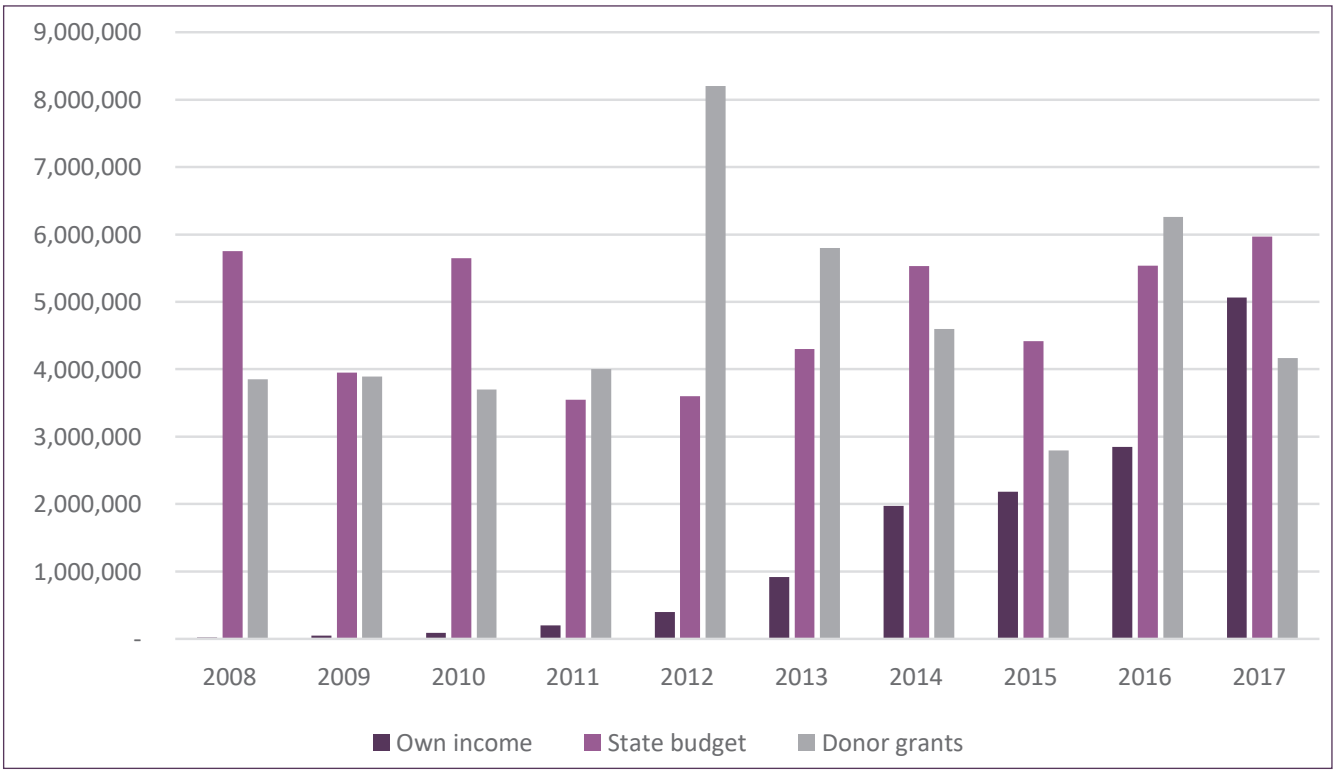
Table 4-2: Visitor numbers to each protected area in Georgia (2011 – 2017)

Protected Area	2011	2012	2013	2014	2015	2016	2017
Algeti National Park	4,828	4,343	5,322	8,828	8,030	16,076	28,020
Borjom-Kharagauli Nat Park	16,213	28,191	42,675	49,549	51,573	55,818	59,458
Vashlovani Protected Areas	3,161	6,968	7,334	8,711	10,976	11,806	12,250
Tbilisi National Park	12,805	15,410	19,145	20,960	15,220	35,439	52,015
Tusheti Protected Areas	9,294	6,853	7,663	9,786	9,676	13,793	14,306
Kintrishi Protected Areas	3,212	4,843	3,364	3,696	3,758	5,138	5,384
Kolkheti National Park	16,760	22,924	17,552	17,699	13,747	26,816	29,523
Lagodekhi Protected Areas	18,615	26,351	32,318	39,417	44,065	49,590	55,519
Mtirala National Park	19,400	21,939	16,358	22,968	21,981	33,774	47,460
Sataplia	75,231	59,015	72,421	67,287	73,601	78,323	85,526
Prometheus Cave	80,687	45,305	72,954	91,711	106,959	138,227	163,941
Okatse canyon				3,165	44,527	52,197	73,113
Martvili canyon*						62,434	147,374
Kobuleti Protected Areas	10,294	10,412	7,553	8,426	8,737	9,175	11,286
Kazbegi National Park	32,796	45,960	50,366	64,622	98,788	134,111	154,085
Chachuna Agkvetili	390	396	656	1,036	2,390	3,292	3,173
Machakhela National Park						2,062	5,092
Javakheti Protected Areas				2,305	4,190	6,803	6,872
Total	**303,686**	**298,910**	**355,681**	**420,166**	**518,218**	**734,874**	**954,397**
YoY % growth	N/A	-2%	19%	18%	23%	42%	30%
Georgian	255,477	230,955	254,603	272,502	336,889	519,874	671,803
Foreign	48,209	67,955	101,078	147,664	181,329	215,000	282,594
Share of Georgians	84%	77%	72%	65%	65%	71%	70%
Share of Foreigners	16%	23%	28%	35%	35%	29%	30%

** Martvili canyon was officially opened in 2016, therefore there were no visitors in previous years.*

The Biodiversity Expenditure Review conducted by BIOFIN provides data on government funding allocations and own or commercial revenues generated by APA. The data in the figure below shows that APA has been able to increase own revenue from GEL 0.02 million in 2008 to GEL 5.07 million in 2017. The introduction of entrance fees to Imereti caves and Martvili canyon following the establishment of infrastructure resulted in substantial increase in own revenues in 2012 (both caves) and 2016 (Martvili). APA was thus able to grow own revenues at an average annual rate of 77% (ranging from 11% to 130%) for the period of 2011-2017.

Figure 4-1. Funding of the Agency of Protected Areas in 2014-2017 (GEL)



Source: *Agency of Protected Areas (APA)*

Own revenue sources tend to be relatively case specific for each individual protected area. This is due to a range of factors, including the location of protected areas in relation to cities and transport hubs, natural assets and existing tourism infrastructure.

The need to build on their successes to date and continue to increase own revenue generation, whilst ensuring that biodiversity protection is not compromised, is acknowledged by APA. There is also a recognition that the urgency associated with having to show gains in own revenue generation by protected areas has been on the increase and is likely to intensify given government budgetary constraints and substantial financing needs.

APA is currently working on sustainable tourism infrastructure development plans for 8 different sites, including national parks and protected areas. The main investment requirement outlined in the plans is the creation of sustainable tourism infrastructure based on the location of each park and its unique attractions. The enhanced service levels and visitor experience would enable APA to introduce entrance fees and fees for different services on site. This would bring economic benefit not only for the APA, but local communities as well, who would be able to sell their products and services to increasing number of Georgian and foreign tourists.

4.2.2 Objectives

The overall objective of this solution is to create sound sustainable tourism infrastructure development plans for individual protected areas, which will be used to find the financing for their implementation including the necessary investments in infrastructure and facilities. The plans can be financed with an appropriate mixture of APA's existing own revenues, state budget, donor or private funds.

The sustainable tourism infrastructure development plans have been drafted for the following sites: Algeti Protected Area, Tbilisi National Park, Machakhela National Park, Sataplia National Park, Kazbegi National Park, Tkhrajvari National Park and Javakheti Protected Area. The required investment amount for each sustainable tourism infrastructure development plan ranges widely from approximately only USD 90,000 for small upgrades up to USD 20 million, with an average investment of about USD 3 million per protected area.

The finance solution would focus on further elaboration of these sustainable tourism infrastructure development plans, providing additional justification for the financial assumptions and evaluating the overall results for the local communities involved. The discussion on funding these plans needs to be held with relevant authorities including the Ministry of Finance, international donors, private companies and individuals. Several, smaller investment projects can be carried out with APA's existing financial resources to show-case successful development plan implementation. This should strengthen APA's ability to attracted further, larger investment.

4.2.3 Next steps

APA will have to lead the process of drawing up sustainable tourist infrastructure development plans and attracting the investments required. The table below outlines a proposed implementation scenario focused on broad next steps:

Table 4-3: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Verify and refine the assumptions used in the investment cases.	APA	APA; MoF; International Donor Organizations	2 months
2. Research additional case studies on community socio-economic development impact of PAs. Use these to make the case for investment.	APA	APA; communities near PAs; International Donor Organizations	4 months

Step	Lead party	Key Stakeholders	Indicative timescale
3. Finance small scale investment projects using own financial resources to create a success story for other projects and gain expertise in plan implementation.	APA	APA; MoF; International Donor Organizations	12 months
4. Approach key potential financing sources to finance plans in different locations, understand the interests and available funding of financing institutions.	APA	APA; MoF; International Donor Organizations	3 months
5. Provide additional information and justification to financing institutions based on discussions described in previous step.	APA	APA; MoF; International Donor Organizations	3 months
6. Implement sustainable tourist infrastructure development plans using financing provided by institutions approached.	APA	APA; MoF; International Donor Organizations	12 months

Expected duration of the implementation steps is up to 36 months.

This solution will focus on providing technical and in some cases financial support to APA in order to assure effective design and implementation of the solution. GEF/UNDP project implemented by CNF on "Enhancing financing sustainability of protected areas in Georgia" should successfully contribute to the implementation of this solution.

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Capacity constraints in terms of protected area management capacity to implement own revenue options successfully.
- Budget constraints may hamper new initiatives that require capital investment and increased management costs.
- Financial institutions may not contribute requiring all financing through grants and government funding.
- Overall Georgian tourism growth may be lower than expected due to external factors.

4.2.4 Expected financial results

APA has generated tentative financial projections for the sustainable tourism infrastructure development plans at the 8 protected areas and for all of them combined. The total initial investment requirement for all of the plans is about GEL 85 million. It was assumed that this investment would be spread over the next four years and that 25% of it would come from donors or other non-governmental sources. Revenues were estimated based on additional visitor numbers multiplied by payments per visitor for items such as entry fees and tourist services. Additional operational costs are highly tentative at this point and were simply assumed to equal 35% of additional revenue generated. These assumptions resulted in net losses from 2018 to 2020 whilst investments would be made and net income thereafter. Over the longer term benefits would exceed costs and result in total cumulative net financial

gains of GEL 9 million over the next 10 years. Note that these gains are reliant on being able to secure donor or other non-governmental sources of funding for the initial investments.

4.3 Improving EIA quality, expertise and effectiveness

An effective and well-functioning Environmental Impact Assessment (EIA) system can protect biodiversity and mitigate harmful impacts of economic activities. The Georgian government is currently improving the EIA process and MEPA is seeking better integration of biodiversity and ecosystem services into the EIA policy. This solution aims to ensure adequate assessment and evaluation of biodiversity into the EIA process. The result is avoided loss of biodiversity and reduced future cost of restoration from planned economic activities. The activities would include: (a) Biodiversity specific guidelines for EIA process, (b) Biodiversity checklists for MEPA staff to assess/revise submitted EIA reports and (c) Appropriate capacity building activities.

The case for this finance solution

- The Georgian government is currently improving the EIA process and MEPA is seeking better integration of biodiversity and ecosystem services into the EIA policy.
- It is planned to increase the total number of Hydro Power Plants (HPPs) in Georgia from existing 64 to 215 by 2022.
- Effective EIA systems ensure that applicants carry the costs of avoidance and mitigation which would otherwise become the burden of the state and wider society.
- The proposed Georgian government's EIA reform and improvements also meet EU harmonisation requirements.
- An improved EIA system will attract responsible investors (e.g. the IFC, EBRD, ADB and private banks that are signatories to the Equator Principles) to Georgia.

4.3.1 Context

After the adoption of the new Constitution of Georgia in 1995, the concept of EIA was introduced by the Law of Georgia on the Protection of the Environment (1996). Specific laws on EIA, like the Law on Environmental Permits and the Law on State Ecological Expertise followed in 1996 and EIA regulations were introduced by the Ministry of Environment in 2002 and 2003.

After the Rose Revolution in 2003 a new phase of legislative reform started which included considerable changes to EIA legislation. The new laws mainly supported business investment by simplifying permitting procedures, including EIA.

The Ministry of Environment Protection and Agriculture (MEPA) is the principal authority on EIA. The Ministry of Economy and Sustainable Development of Georgia gets involved in the EIA system when an activity, subject to permit for impact on the environment, also requires a construction permit. In accordance with the "one stop shop" approach, the applicant does not deal directly with the environmental authority. Rather, the applicant submits its application to the construction authority – MESD, which communicates with the environmental authority. The Ministry of Justice of Georgia is responsible for promulgating and legally enforcing EIA legislation.

The review of the EIA report is required as it is part of conducting a State Ecological Expertise as a verification mechanism of several documents submitted by the applicant in order to obtain the environmental impact permit afterwards. Compliance monitoring of the permit conditions is also required. In terms of practical process steps, after receiving the project proposal from the applicant, the Department of Environmental Permitting together with other MEPA experts makes a decision on what is required from applicant. Prior to submitting the final EIA report to the MEPA, the applicant is required to arrange a public hearing in a district administrative centre, where the activity is planned to be implemented. The applicant then submits the final EIA report to the MEPA taking into account the comments of the public and other principal stakeholders.

After review, the commission formulates a final statement of ecological expertise that can be either positive or negative. The Minister formally confirms or approves the application. The order of the Minister is a formality and includes as an integral part the main text of the Conclusions of Ecological Expertise prepared by the Expert Commission. These Conclusions include the reasoning and rationale for granting or rejecting a permit. The decision taken is relayed to the applicant who is required to inform other stakeholders including the public of the outcome of the process. The legislation of Georgia does not envisage an independent examination of the adequacy of environmental information given in the EIA report. The main verification mechanism is the State Ecological Expertise. The environmental impact permit comes with permitting conditions. The law on Licenses and Permits stipulates that the conditions and findings of the conclusion contained in the State Ecological Expertise represent the permitting conditions.

It is legally possible for MEPA to make exemptions from EIA, based on recommendations provided by a special council on Environmental Impact formed at the MEPA. Approximately 60 to 70 EIA based permits are processed annually. They cost GEL 500 (USD 200) regardless of project size or complexity.

Key challenges currently associated with EIAs include:

- In most cases, the majority of remediation and mitigation activities are not implemented (often the management of the permit holder company is not even aware of these obligations). These companies may then be fined at a later stage, during inspections.
- Georgian legislation on EIA provides only principles on how EIA processes should be conducted. There are no sector specific guidelines and requirements for the inclusion of principal details (e.g., remediation activity costs and the timelines within which they need to be completed are not required in EIAs).
- Generally, the EIA reports submitted to MEPA are of poor quality. It is a challenge for the Ecological Expertise Committee to review and identify the "threats" and/or "challenges" specifically dealing with biodiversity issues.
- MEPA staff, especially at the Department of Environmental Supervision, are not adequately equipped with the skills and knowledge necessary for effective inspection.

It is important to note that, as of January 2018, a new Code of Environmental Assessment entered into force. It regulates the procedures related to issuance of environmental impact assessment, strategic environmental assessment, public participation in decision-making, transboundary impact assessment on the environment and carrying out State Ecological Expertise reports. Following the new code, General guidelines for preparation of EIA report will be elaborated. These guidelines will outline certain requirements for the data to be reflected in EIA report. The proposed financial solution will aim to provide the framework for the biodiversity section within these EIA guidelines.

4.3.2 Objectives

This solution would aim to improve the quality of EIAs by focusing on three areas for improvement:

1. Drawing up of specific guidance for the consultants that undertake EIA for applicants. Different types of projects may require different sectoral guidelines (e.g. Roads, HPPs, Oil terminals etc). Guidance on inclusion of key biodiversity-related topics is also required on how to present and specify remediation activities in EIA so that it is clear what remediation is expected of applicants, over what time frames and at what cost.
2. Creation of biodiversity checklists in keeping with EU directives, allowing Ecological Committee members to assess the scope, scale and quality of biodiversity related measures and make justifiable recommendations.
3. Capacity building of MEPA staff, especially in the Department of Environmental Supervision, to ensure increased effectiveness. There can be specific trainings on biodiversity impacts, ecosystem services and mitigation along with how to inspect projects and applicants' activities (e.g. to distinguish good practice remediation and mitigation measures from bad).

4.3.3 Next steps

The MEPA is leading the EIA reform process. The table below outlines a proposed implementation scenario focused on broad next steps.

Table 4-4: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Development of detailed work plan for development of the assignment and present to the stakeholders.	MEPA; Environmental Permitting Department	MEPA: DES, Legal Department, Biodiversity and Forest Policy Department, NFA, NEA; Environmental NGOs; International consulting companies (e.g. Norsk Energi)	1 month
2. Development of draft biodiversity specific guidelines for undertaking EIA for HPPs.	MEPA; BIOFIN Team	MEPA: DES, Legal Department, Biodiversity and Forest Policy Department, NFA, NEA	2 months

Step	Lead party	Key Stakeholders	Indicative timescale
3. Development of draft biodiversity checklists for MEPA staff to evaluate submitted EIA reports.	MEPA; BIOFIN Team	MEPA: DES, Legal Department, Biodiversity and Forest Policy Department, NFA, NEA; Contracted expert/group of experts	5 months
4. Support of MEPA in the process of consultations regarding the draft guideline and checklist with the line ministries.	MEPA	Environmental Permitting Department	1 month
5. Validation workshops (Public consultations, at least 2 workshops).	MEPA; BIOFIN Team	MEPA: DES, Legal Department, Biodiversity and Forest Policy Department, NFA, NEA; Line Ministries; Environmental NGOs; International consulting companies; Local Consulting companies (e.g. Gamma consulting etc)	1 month
6. Revision of the final draft according to the feedback received.	MEPA; BIOFIN Team	MEPA: DES, Legal Department, Biodiversity and Forest Policy Department, NFA, NEA; Line Ministries; Environmental NGOs; International consulting companies; Local Consulting companies	2 weeks
7. Submission of the final document to the MoEPA for approval.	MEPA; BIOFIN Team		2 weeks
8. Practical trainings (At least 3 training days for 20 MoEPA staff) on the prepared guideline and checklist.	MEPA	Environmental Permitting Department, DES, Biodiversity and Forest Policy Department, NFA; Local Consulting companies	Recurrent; Twice per year 2019-2020
9. Support to Department of Environmental Supervision on technical aspects of checklist usage (develop software, provide trainings on usage).	MEPA; BIOFIN Team	Environmental Permitting Department, DES	3 months
10. Implementation of similar practice/approach for other activities/sectors.	MEPA		2019-2020

Expected duration of the first 9 implementation steps is up to eight months.

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Willingness of state authorities to undertake the necessary reforms and learn new ways of working.
- Availability of additional budget/staff within the MEPA to implement changes in the medium term to continue launch activities.
- Availability of adequately capacitated consultants and companies to prepare and implement improved EIAs.
- Willingness among applicants to allocate additional resources associated with the introduction of new EIA requirements (both for preparation and implementation).

4.3.4 Expected financial results

The overall outcomes of the solution would be improved EIAs and associated decision-making processes. This should lead to positive outcomes for biodiversity as mitigation and remediation processes would improve thereby reducing impacts and decreasing future costs for environmental remediation. Companies/applicants would spend more funds to deliver actions specified under the improved EIAs.

Based on the assumption that the first step would be to improve EIAs for Hydro Power Plants, the financial calculation was done for this particular sector. To generate a tentative indication of the financial magnitude of the benefits, statistics for the past years have been used to estimate the average number of HPP's obtaining an EIP each year. It was assumed that EIPs would be issued for 4 small projects, 6 medium-sized projects and 2 large project each year during 2018-2027. Each of these projects would either avoid impacts or undertake additional remediation with an average value/cost ranging from GEL 30,000 to GEL 100,000 per annum per project, depending on project size. The annual costs of implementing the solution were assumed to be GEL 180,000 in the first year, for the creation of detailed guidelines and checklists and GEL 50,000 per year from 2019 to 2027 for subsequent trainings and other costs. These assumptions resulted in cumulative net financial gains for the government and society of GEL 44 million over the next 10 years undiscounted.

After the completion of this action, the experience would be used to create EIA guidelines for sectors other than HPP's, yielding additional benefits.

4.4 Supporting a well-designed, appropriately scaled and enforced system of EIA fines

The current system of fines for EIA violations is not effective because the levels of fines are too low for a majority of business sizes and sectors, fines are appealed in court and often require 3-5 years of litigation, and a certain proportion of fines remain unpaid. A well designed system of EIA fines, appropriately scaled and enforced, could deter irresponsible behaviour from Environmental Impact Permit holders. This solution aims to set economically meaningful fine levels, produce a clear and easily enforced mechanism for issuing and collecting fines through amendments to legislation, and implementing the revised system. The result will be a system that acts as a realistic deterrent to would-be offenders and incentivises sustainable practices. The specific actions include: (a) reviewing the existing fines system (b) proposing a reformed fine system and amounts (c) implementing and refining the updated system.

The case for this finance solution

- EIA systems require meaningful fine levels and enforcement to assure compliance with agreed Environmental Impact Permits
- The existing fines levels are not responsive to the scale of the violation and the system does not assure compliance.
- Lack of compliance with the EIP results in transfer of liability from the polluter to the government and population (against the polluter-pays principle), harms biodiversity and increases future costs.
- Reforming the fine system to apply standardized, transparent, and appropriate fines that correspond to the scale of the violation will encourage improved compliance.
- Improved compliance will reduce impacts on biodiversity and future costs to the government and society.

4.4.1 Context

The basic workings of the Environmental Impact Assessment (EIA) process are outlined in Section 4.2. Assuming their projects are approved by the MEPA, applicants are issued with an Environmental Impact Permit (EIP) based on an EIA report. The permit specifies the conditions of approval that should be followed in order to minimize environmental and biodiversity impacts and/or compensate for them. If these conditions are violated then the MEPA will seek improved compliance through a fine on permit holders. Currently, there are specific fine amounts that can be levied by the MEPA against a permit holder for the violation of permit conditions. Fine amounts are GEL 5,000 for first offenders, GEL 15,000 for second offenders and GEL 45,000 for third offenders. These base amounts apply regardless of (1) the number of individual conditions in the EIP that were violated and (2) the severity of the violations. For example, the same fine applies when one condition is violated with minimal damages to the environment as when many conditions are violated with significant consequences for the environment.

In terms of actual revenue from fines, Table 4-5 shows the annual value of administrative fines paid in the overall field of environmental protection and the use of natural resources from 2011 to 2016. These amounts include EIA fine amounts and reached GEL 2.3 million in 2016.

Table 4-5: Total value of all environmental fines paid into the state budget (2011-2016)

	2011	2012	2013	2014	2015	2016
GEL	1,684,683	890,083	567,527	917,386	969,980	2,341,956
USD	999,193	539,032	341,181	519,513	427,270	989,538

Source: *Ministry of Finance (MoF)*

Table 4-6 shows the value specifically of EIA fines issued by the Department of Environmental Supervision (DES) from 2011 to 2016. They amounted to GEL 165,000 in 2016 and a total of GEL 445,000 over the six years between 2011 and 2016 which is a small amount relative to actual numbers of violations to the environment.

Table 4-6: Total value of EIA fines issued by DES (2011-2016)

	2011	2012	2013	2014	2015	2016
GEL	15,000	75,000	30,000	35,000	125,000	165,000
USD	8,897	45,420	18,035	19,820	55,062	69,717

Source: *Department of Environmental Supervision (DES)*

Fines have the potential to punish offenders, deter would-be offenders, incentivise compliance with environmental laws and serve a revenue raising function. The result of the current system of fines for EIA violations is limited as fines are too low to reflect the proportionality principle and are not strong motivation for compliance.

4.4.2 Objectives

The overall aim of this solution would be to review and reform the existing EIA fine system in order to better incentivise sustainable practices. The secondary result can be an increase in revenues from fines. Key objectives or tasks include the following:

1. Review the existing fine system and amounts with a focus on their appropriateness and incentive effects.
2. Review the current method for issuing, processing and collecting fines and incorporate the results into the design of the fine system – this includes increasing the likelihood of payment, minimizing courts involvement and delays, etc.

3. Use the outcomes of the review process and other inputs to propose a reformed system and associated fine amounts. For example, such a review could consider setting fine amounts relative to the number of conditions violated and the severity of the violations. It will also be important to consider harmonisation with the draft Environmental Liability Law (ELL) and other reforms to the overall environmental liability system. As a general principle, fines should be adjusted for inflation regularly.
4. Get the necessary stakeholder inputs on the proposed reforms and in order to finalise the revision.

4.4.3 Next steps

The MEPA would lead the process of reforming fines. The table below outlines a proposed implementation scenario focused on broad next steps.

Table 4-7: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Review the existing fine system and amounts with a focus on their appropriateness and incentive effects.	MEPA	MoF; NGOs; developers	6 months
2. Generate proposal for the reform of the fine system and amounts.	MEPA	MoF; NGOs; developers	6 months
3. Get the necessary stakeholder inputs on the proposed reforms and finalise.	MEPA	MoF; NGOs; developers	3 months
4. Implement reformed system of fines.	MEPA	MoF; NGOs; developers	Ongoing

The expected duration of the first 3 implementation steps is up to 15 months.

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Difficulties associated with determining appropriate fine amounts.
- Stakeholder resistance to increased fines.
- Increased difficulty in collecting higher fine amounts

4.4.4 Expected financial results

The overall outcomes of the solution would be improved compliance with EIP conditions. This should lead to positive outcomes for biodiversity either through better mitigation and remediation processes or through higher fine revenues where violations still occur. The financial benefits associated with either of these outcomes are extremely difficult to predict with any degree of confidence at this stage when new fine amounts are yet to be investigated and potentially revised. The financial benefits in terms of revenues were nevertheless estimated based on the assumption that revenue from fines would increase gradually, but substantially given their low base, to double current revenues within five years to GEL 320,000 and remaining at this level thereafter. Additional cost to the MEPA of implementing the solution, in the form of minor technical inputs where needed, were assumed to be GEL 50,000 spread over the next two years. Total cumulative net financial gains from the solution would sum to GEL 850,000 over the next 10 years.

Note that the previous solution focused on making overall improvements to EIAs should capture some portion of the benefits of an improved system of fines as these fines would make a contribution to the overall EIA system.

4.5 Creating an effective environmental and biodiversity damage remediation and compensation system

Over the last four years GEL 140 million in administrative and criminal damages have been submitted for prosecution, however 3.9% of these damages have been paid. Judicial delays and complexity for calculating damages to the environment limits the effectiveness of damages as incentives for responsible behaviour. The Department of Environmental Supervision (DES) is currently reviewing its system for environmental damages. In addition, the DES is developing the Environmental Liability Law (ELL) which will introduce the concept of major environmental damages. This solution will improve the methodology for damage calculation and criminal thresholds and support the completion of the ELL. These changes will improve the effectiveness of the environmental liability system by retaining more cases in administrative courts (vs criminal courts), increase payment rates and increase the effectiveness of penalties as deterrents for illegal activities. The specific steps required include finalisation and submission of ELL, revision of damage calculation methods, and changes to thresholds for criminal proceedings.

The case for this finance solution

- Over the last four years GEL 140 million in administrative and criminal damages have been submitted for prosecution, however a small percentage of these damages have been paid.

- An effective Environmental Liability system would ensure that those responsible for environmental damages pay the costs of remediation which would otherwise become the burden of the state and/or wider society.
- Ensuring that the Environmental Liability system is based on administrative and not criminal liability should reduce the scope for legal challenges thereby saving time and resources.
- Environmental Liability Law reform is required to meet EU harmonisation requirements thereby contributing to closer ties with the EU.

4.5.1 Context

Current Georgian legal provisions and practices focused on dealing with environmental liabilities have key flaws that are recognised by the state and the MEPA in particular. They result in damages to the environment not being addressed (i.e. they are not effective in practice) and are incompatible with the EU approach to environmental liability. In essence, the outcomes of the environmental liability system in Georgia is that monetary damage compensation is paid to the state in cases when the actual damage is done to the environment in addition to the fixed amount of fine imposed for administrative violation according to the relevant article of Administrative violations Code. This compensation is often not adequately estimated. Once paid, the payments are also not used for remediation essentially making them more similar to a "fine" as opposed to an effective way of reducing actual damages (ref: MEPA ELL explanatory notes first draft).

In order to address these flaws, and to achieve harmonisation with the EU Environmental Liability system, MEPA is in the process of drafting a new Environmental Liability Law (ELL) and reforming the overall system for dealing with environmental liabilities. The new environmental liability system will make the distinction between how major/significant environmental damage situations are dealt with versus other, environmental damages.

The ELL will focus specifically on how significant environmental damage situations are dealt with and will set criteria for the determination of what constitutes significant environmental damages. The number of such significant damages cases are not expected to be high and will be handled on a case by case basis. The Law would have the following key features (ref: ELL explanatory notes):

- It would focus on dealing with unplanned/ unpredictable environmental damages (as opposed to the Environmental Assessment Code which deals with impacts that can be predicted and dealt with proactively through the EIA process).
- It would be based on public liabilities meaning that the competent public authority (i.e. MEPA) shall identify those responsible and ensure that they undertake or finance the necessary remedial measures. This is different to civil liability where a person (as opposed to the environment) is affected and that person claims compensation from the person who caused the damage through legal action. Under the ELL, the state (with potential inputs from NGOs) is the advocate of environmental protection making it responsible for ensuring remediation as consequence of liability.
- It would aim to ensure that areas where natural resource damages (harm to biodiversity, water or land) occur are restored to the condition which existed before the damage occurred (the baseline condition). The person/company who caused the environmental damage has to take the necessary remediation action at their costs. In some cases this may include "substitution", for instance when biodiversity is lost in a location but secured for long term conservation at a substitute site (in this respect

the draft ELL essentially applies the key principles of biodiversity offsets[10]).

- In exceptional circumstances, where remediation or substitution is clearly not possible at all, payment of monetary damage compensation to the state will be allowed. These compensation amounts would be based on Regulations specifying how to calculate damages imposed on the environment including the appropriate inclusion of biodiversity damages. Payments made to the state would be deposited in a special remediation fund/account and used exclusively to undertaking remediation (as opposed to the current situation where this does not necessarily happen and payments are used for general environmental purposes).

In the wider reform of the Environmental Liability system (i.e. beyond that which is covered under the ELL), for cases where damages are less significant, the basic workings of the system would stay the same. However, the methodology for calculating the value of the damages imposed on the environment is outdated and requires improvement. In addition, the damage amount thresholds beyond which criminal prosecution is initiated are too low in some instances which results in too many time consuming and potentially fruitless criminal proceedings being required. Reforms to the damage calculation methodology and thresholds would thus ensure that more violations are dealt with as administrative matters and not as criminal cases.

Table 4-8 below shows the value of damages issued by the Department of Environmental Supervision (DES) from 2014 to 2017. They amounted to GEL 9,241,450 in 2017 and a total of GEL 141,567,738 over the four years between 2014 and 2017.

Table 4-8: Total value of administrative and criminal damages issued by DES (2014-2017)

	2014	2015	2016	2017
Administrative (GEL)	1,360,219	657,078	929,794	1,116,374
Administrative (USD)	770,288	289,439	2 392,862	445,012
Criminal (GEL)	20,828,980	99,050,453	9,499,764	8,125,076
Criminal (USD)	11,795,395	43,631,122	4,013,901	3,238,843
Total (GEL)	22,189,199	99,707,531	10,429,558	9,241,450
Total (USD)	12,565,683	43,920,561	4,406,763	3,683,855

Source: *Department of Environmental Supervision (DES)*

10 If this principle of substitution or offsetting is accepted in the ELL then one assumes that, in order to be consistent, biodiversity offsets should also eventually be formally introduced as an option in EIAs. Biodiversity offsets can be implemented in EIA as the last option in the mitigation hierarchy (i.e. when damage to, or loss of, important biodiversity cannot be avoided or mitigated then as a last option, offsets can be considered).

4.5.2 Objectives

A new Environmental Liability system and associated Environmental Liability Law (ELL) dealing with biodiversity and other environmental damage remediation and/or compensation is in draft form and needs further work before it can be finalised. The aim of this solution is essentially to ensure that the EL system reform is finalised and implemented. This should result in significant improvements by fulfilling the following objectives:

- Ensuring that biodiversity and other environmental damages are remediated and restored to their baseline condition.
- Transferring the costs of remediation to the person/company who caused the environmental damage.
- For significant environmental damages regulated under the ELL, allowing for substitution as a form of remediation thereby applying the key principles of biodiversity offsets.
- For significant environmental damages regulated under the ELL, allowing for payment of monetary damage compensation to the state only in exceptional circumstances where remediation or substitution is clearly not possible.
- For significant and less significant environmental damages, revising the damage calculation methodology in order to ensure that damage compensation payment amounts would be based on clear regulations and guidance.
- Ensuring that the damage amount thresholds beyond which criminal prosecution is initiated are revised upward where appropriate thereby significantly reducing the need for criminal proceedings.
- Ensuring that damage compensations payments made to the state are deposited in a special remediation fund/account and used exclusively to undertaking remediation. The Kolkheti fund can be used as an example of where damage compensation funds have been earmarked for rehabilitation actions.

4.5.3 Next steps

MEPA is leading the ELL reform process. The table below outlines a proposed implementation scenario focused on broad next steps.

Table 4-9: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Complete draft of ELL.	MEPA	MoF; MoJ; MOESD; NGOs; private sector	6 months
2. Stakeholder consultation on draft ELL and finalisation.	MEPA	MoF; MoJ; MOESD; NGOs; private sector	3 months
3. Send ELL to parliament for approval.	MEPA	MoJ	12 months

Step	Lead party	Key Stakeholders	Indicative timescale
4. Revision and improvement of damage calculation methodology and thresholds with focus on biodiversity.	MEPA	MoF; MoJ; MOESD; NGOs; private sector	12 months
5. Capacity assessment of Ministry staff and capacity building as needed.	MEPA		recurrent
6. Implementation of improved environmental liability system.	MEPA	MoF; MoJ; MOESD; NGOs; private sector	Ongoing

Expected duration of the first 5 implementation steps is up to 24 months.

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Availability of additional budget/staff within the MEPA to implement changes.
- Difficulties associated with determining adequate compensation amounts to be paid to the state (in exceptional circumstances)
- State procurement processes resulting in difficulties, delays in spending damage compensation payments provided to the state on the needed remediation.
- Willingness of environmental authorities to undertake the necessary reforms and learn new ways of working.

4.5.4 Expected financial results

Avoided costs to biodiversity and potentially to the state, should it eventually be required to pay the costs of remediation not carried out by those liable, have the potential to be significant for this solution. The primary gains would be from damage compensation payments that previously remained unrecovered (i.e. unpaid) that become recoverable to a greater degree as the system makes use of more effective administrative procedures instead of criminal ones. Total amount of calculated damages in 2017 is GEL 9.24 million. It was assumed that the additional damage compensation amounts levied that become recoverable would equal approximately 40% of current amounts levied. It was also assumed that current amounts would increase by 3% annually as result of the revision of the damage calculation methodology[11]. Additional cost to the MEPA of implementing the solution were assumed to be GEL 1 million spread over the next two years and GEL 0.25 million per year thereafter. These assumptions resulted in cumulative net financial gains of GEL 18.8 million over the next 10 years.

11 Note that the quantum of gains to the state in terms of the value of remediation carried out would be the same or greater if, as is intended under the reforms, remediation is carried out by those responsible and not paid out in damage amounts to the state.

4.6 Reviewing and updating existing fees and quota system for the use of natural resources

A wide range of renewable natural resources (including Non-timber forest products, NTFPs) are used for commercial and local use. The current system for fees and quotas is limited in terms of the amount of fees charged, the number of species included, and the ability of key organizations to monitor and enforce collection regulations. This solution aims to review and revise the system of fees, quotas, and monitoring of renewable natural resources to establish an effective, equitable and sustainable system for commercial natural resource use. The impact of this solution will be increased resources available for monitoring, increased sustainable revenues for local governments, improved sustainability of natural resource use and the ability to track certificates of origin for natural products. The necessary actions include reviewing the current system of fees and quotas, assuring strong scientific background on sustainable harvesting levels, monitoring systems from APA, NFA and other organisations, revising system structures, fees and quotas, identifying options for retaining fees for improved monitoring, and tracking / verification of commercial use of natural products. It would also seek to ensure that a greater proportion of fee revenues are re-invested in natural resource protection activities by local authorities.

The case for this finance solution

- As the use of natural resources had been poorly managed for the last decades and many resources are still utilised in an unsustainable manner with low compensation to the state, the Georgian government expressed a political will to move towards more sustainable use of natural resources in a number of strategies and national policy documents.
- A user fee system reflecting sustainable use levels, market values and social equity will result in improved management and fair distribution of benefits.
- Properly managed natural resource supply chain supports an enabling environment for sustainable livelihoods and green product development.
- NTFPs have a potential to provide substantial value when used for commercial purposes. Due to the legislative gaps, the state does not get any financial benefits from NTFPs, as it does with other natural resource uses requiring fee payments.

4.6.1 Context

According to the current legislation, there are two types of natural resources usage fees: (1) a regulatory fee and a (2) natural resource usage fee.

Regulatory fees are levied purely to cover the state's costs associated with executing their regulatory function. They are charged in accordance with the 2011 "Law of Georgia on Regulation Fees". The Law grants the right to collect a regulatory fee to the legal entities of public law (LEPLs) that regulate the use of natural resources. Since 2013, the responsibility for regulating the use of natural resources was transferred to the National

Environmental Agency (NEA) in MEPA. In terms of appropriate amounts for fees, Article 5 of the "Law of Georgia on Regulation Fees" explains that "the regulatory fee should be non-discriminatory and should be sufficient to fully cover the expenses envisaged in the budget of the National Regulatory Authority." In this regard, the NEA generated regulatory fee revenues of roughly GEL 10.1 million in 2016 along with GEL 490,000 from grants. Note that this amount included revenue from minerals and subsequently the mining sector has established a regulatory agency in the form of the National Agency of Mines which now receives a large portion of these fees to fund its activities.

At present natural resource use fees are charged for a range of resources including minerals, timber, NTFPs, water, selected animals and birds, and fish. Table 4-10 lists the main natural resource uses for which fees are charged along with revenues generated from use fees over the last few years. It shows that, despite minor fluctuations, fee amounts for the use of natural resources almost doubled over last 6 years form GEL 29 million to GEL 54 million. This includes GEL 38 million for minerals.

In addition, the MEPA is in the process of exploring the introduction of new usage fees for certain NTFPs. The whole process will be administered by the NFA and the fees will be collected and reinvested to ensure the sustainable forest management practices. The NTFPs fees will not go to local authorities as is the case with natural resource usage fees at present as they are derived from forest areas and thus would go to the National Forestry Agency (NFA). A wide variety of non-timber forest products (NTFPs) can be sustainably harvested from forest areas. The more prominent among these include fruits, berries, nuts, mushrooms, medicinal plants, honey and decorative plants some of which are a common source of food, or provide supplementary income, for rural populations. For example, in Guria Region, local communities harvest vaccinium berries for personal and for medical purposes. Currently, no fees are charged for these NTFPs when they are harvested for private consumption, however the practice of charging the commercial usage is also not adequately executed due to the monitoring complexity.

Increased revenues from these sources thereby could supplement the NFA's income from timber sales. Initially market studies are required to understand the potential of products followed by business planning, prioritisation of opportunities, determination of appropriate prices and investment. There's no comprehensive research conducted in order to identify and assess the financial potential of commercialization of different ecosystem services (including NTFPs and tourism) related to the forestry sector under the NFA jurisdiction. Such research/ survey will serve a proper baseline to proceed with the introduction with specific initiatives.

Table 4-10: Natural resource use fee revenues (2012-2017, GEL million)

Natural resource uses	2012	2013	2014	2015	2016	2017
Minerals	18.91	14.40	21.65	32.76	29.77	37.94
Timber	4.87	4.41	4.09	4.16	4.80	4.88
Non-Timber Forest Products	0.14	0.24	0.09	0.11	0.11	0.15
Water	1.09	0.94	2.31	1.82	2.08	1.59
Selected animals	0.00	0.00	0.56	0.35	0.47	0.17
Migratory birds	0.20	0.27	0.36	0.40	0.43	0.39
Other	4.11	5.74	3.89	5.86	6.80	8.83
Total	**29.33**	**26.01**	**32.95**	**45.47**	**44.46**	**53.95**

Although natural resource use fees have been successful to some degree, challenges remain. It will be essential to update fees (currently inappropriately low in most cases) to avoid over-utilisation in some cases and to capture more rent income. Revenues from these user fees currently flow to local authorities and are not earmarked for use on conservation. In general, resource use fees are also a highly politicised issue which makes changing them particularly challenging. Note that resource use fee amounts are currently also used as an input to the calculation of some damage compensation payment. Changing fees would therefore also have implications for damage compensation payment amounts.

4.6.2 Objectives

The overall aim of this solution would be to review and update existing natural resource use fees in order to increase revenues from them, incentivise sustainable utilisation and ensure that an appropriate portion of fee revenues are used for biodiversity conservation. Key objectives or tasks include the following:

1. Review existing use fees with a focus on their appropriateness and taking into account the number of years since they were last updated. For example, in some cases fees may not have been adjusted for inflation thereby making their amounts substantially below their originally intended level. They may also have become inappropriate for other reasons such as increased demand in the face of dwindling supply.
2. Review and estimate reasonable sustainable usage levels for natural resources which can inform fee setting. This would essentially require information and data gathering on currently use levels and impacts on the sustainable availability of resources.
3. Use the outcomes of the review process and other inputs to propose new fees and quota systems.
4. Get the necessary public and other stakeholder inputs on the proposed new fees and quota systems in order to finalise the revision of fees.
5. Establish a process and timing for more regular updating of fees in the future.
6. Ensuring a better understanding of the nature of market opportunities associated with NTFPs, tourism and other ecosystem services. This should require more intensive investigation by the NFA and its partners. It is also likely to required selected technical inputs such as market studies to understand the potential of products and willingness to pay for them.
7. Determining which NTFP usage fees to pursue in the short, medium and longer term and planning accordingly.
8. Lobby local authorities or otherwise investigate ways of ensuring that a reasonable share of additional revenues generated by local authorities from non-mining related fees flow back to conservation. This may prove a challenging part of the overall solution as local authorities are unlikely to agree to limiting their flexibility in the use of fee revenues on which them depend for funds. One option is to develop and communicate effective project ideas for conservation of natural resources that might interest local authorities and suggest that they invest 50% of the revenue gained on these projects.

4.6.3 Next steps

The MEPA will lead the process of implementing the solution. The table below outlines a proposed implementation scenario focused on broad next steps:

Table 4-11: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Review of existing natural resource use fees and quotas including estimates of reasonable sustainable usage levels for natural resources to inform fee setting.	MEPA	Local authorities; natural resource users; MoJ; MoF	9 months
2. Propose new fees, get stakeholders inputs and finalise the revision of fees.	MEPA	Local authorities; natural resource users; MoJ; MoF	6 months
3. Establish a process and timing for more regular updating of fees in the future.	MEPA	Local authorities; natural resource users; MoJ; MoF	2 months
4. Survey market opportunities associated with NTFPs, tourism and other ecosystem services including potential of products and willingness to pay for them.	NFA; MEPA	NFA; Line Ministries; International Donor Organizations; local municipalities; NGOs	6 months
5. Survey to identify potential economic benefit from NTFPs.	NFA; MEPA	NFA; Line Ministries; International Donor Organizations; local municipalities; NGOs	5 months
6. Public consultations to ensure adequate participation of local communities in the process of defining the fees for NTFPs.	NFA; MEPA	NFA; Line Ministries; International Donor Organizations; local municipalities; NGOs	5 months
7. Lobby local authorities or otherwise investigate ways of ensuring that a reasonable share of additional revenues generated by local authorities flow back to conservation.	MEPA	Local authorities; natural resource users; MoF	12 months
8. Finalising NTFP usage fees to pursue in the short, medium and longer term.	NFA; MEPA	NFA; Line Ministries; International Donor Organizations; local municipalities; NGOs	2 months
9. Introduction of relevant amendments in legislation.	NFA; MEPA	NFA; Line ministries; Parliament of Georgia	3 months

Expected duration of the implementation steps is up to 36 months.

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Resistance among resource users to higher fees resulting in increased illegal use and non-payment.
- Limited flexibility associated with government processes that may make the regular updating of fees difficult to implement.
- Further politicisation of natural resource use fees hampering implementation.
- Unwillingness of local authorities to earmark or assign fee revenues for conservation.
- Increased illegal harvesting of NTFPs when fees are introduced results in low revenues and increased need for law enforcement.

4.6.4 Expected financial results

The financial benefits of this solution were estimated based on the assumption that revenue from non-mining fees would increase gradually form a low base to 50% above current revenues within five years and double current revenues in 10 years. Additional cost to the MEPA of implementing the solution, in the form of selected technical inputs and consultations, were assumed to be GEL 250,000 spread over the next two years. It was also assumed that it would be possible to have local authorities earmark 10% of non-mining revenue for biodiversity conservation activities. These revenue and cost assumptions result in cumulative net financial gains of GEL 7.2 million over the next 10 years.

4.7 Professionalizing the fuelwood industry

The current system for harvesting and sale of fuelwood from natural forests is an informal (and largely illegal) system, complex to administer and may be leading to unsustainable harvesting practices. The National Forest Agency (NFA) seeks to revise the harvesting system to improve sustainability, management effectiveness and financial cost recovery. The aim of this solution is to professionalize the fuelwood industry by converting the informal practice of social cutting into an efficient, sustainable and regulated system that satisfies fuelwood demand. This will result in improved administrative and operational efficiencies, sustainable harvesting levels, and increased capture of fees for the NFA. Required steps include determining key criteria for system (affordable price, equity, etc.), detailed feasibility and options study, proposed structure of system and revision of regulations (if required), piloting and scaling.

4.7.1 Context

Forests cover a total area of approximately 3.047 million ha in Georgia and are all owned by the state and managed by state institutions. The NFA is the largest among these and manages approximately 2 million ha followed by APA which manages 520,000 ha, Abkhazia A/R which manages 370,000 ha and Adjaran Forestry Agency which manages 153,000 ha. Table 4-12 below shows the total annual timber harvested per region up to 2016. Kakheti experienced the highest harvest rates at approximately 121,800 m^3 in 2016 followed by Samtskhe-Javakheti (79,800 m^3) and Shida Kartli (71,300 m^3).

Table 4-12: Volume of timber harvested in forests per regions (Cubic metre)

	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016
Tbilisi	19,192	4,741	6,278	-	-	-	-	-	-	-
Abkhazia A/R	-	-	-	-	-	-	-	-	-	-
Adjara A/R	24,464	44,648	73,007	77,868	86,236	71,313	75,894	77,981	75,510	65,422
Guria	4,952	24,463	56,384	16,193	10,546	26,836	10,150	12,425	12,269	8,526
Imereti	19,098	45,270	103,713	97,440	43,643	34,580	90,449	77,744	80,775	57,443
Kakheti	44,890	61,893	119,479	181,706	150,756	91,025	136,938	124,109	140,086	121,773
Mtsketa-Mtianeti	20,341	36,029	68,938	86,944	61,884	45,517	52,772	63,897	74,956	63,545
Racha-Lechkhumi and Kvemo Svaneti	16,509	52,706	52,718	37,148	42,992	51,067	54,165	58,545	60,919	59,145
Samegrelo-Zemo Svaneti	22,175	55,923	110,376	91,524	42,671	44,229	57,709	49,124	29,019	39,538
Samtskhe-Javakheti	71,916	72,483	123,253	94,374	96,543	63,692	91,197	82,728	89,170	79,784
Kvemo Kartli	32,552	20,757	44,100	89,704	75,668	46,622	46,980	56,817	52,496	44,222
Shida Kartli	13,623	23,227	52,369	103,848	70,730	43,911	85,883	6,871	76,661	71,284
Protected Areas	-	-	-	-	-	-	20,893	16,930	20,475	17,353
Georgia, Total	**289,712**	**442,140**	**810,615**	**876,749**	**681,669**	**518,792**	**723,030**	**627,171**	**712,336**	**628,035**

Source: *Ministry of Environment and Natural Resources Protection of Georgia;*
National Forestry Agency;
Adjarian Forestry Agency.

There are essentially two types of wood or timber users:

1. Agents who have a license for cutting down trees for commercial use in a given area;
2. Local communities and Legal Entities of Public Law (LEPLs), who harvest wood for their own social use (primarily as fuel) which constitutes roughly 80% of total use in Georgia.

Unsustainable utilization of wood resources is a significant challenge. It has resulted in the degradation of the biodiversity and ecosystem services provided by forests. A large portion of over-use is also essentially illegal and does not result in revenue for the state.

According to the state audit, the following quantities of wood and timber were official permitted for social usage:

Officially permitted	2013	2014	2015
For fuel (m^3)	501,871	506,670	534,179
For material (m^3)	16,658	13,462	19,342
Total	**518,529**	**520,132**	**553,521**

Source: *State Audit Office of Georgia*

Actual usage, however, estimated by the national statistics office of Georgia, is almost five times higher as follows:

Actual usage – for fuel	2013	2014	2015
Social usage of forestry (m^3)	2,543,000	2,474,800	2,482,719

Source: *National statistics office of Georgia*

The actual usage of forestry wood material provided by the national statistics office corresponds relatively well to an estimate made by Caucasus Environmental NGO Network (CENN) of 2,426,138 m^3 although a report by USAID estimates an even higher usage of 4,614,851 m^3 (reported in MENRP, 2016). The state audit also noted that forestry 'tickets' (i.e. permits) amounting to about 700,000 m^3 of allowed social use were issued. This implies enough wood for about 100,000 families at allowed amount of 7m^3 of wood per family (or 15m^3 in remote mountainous areas). However, the actual number of registered families with tickets is significantly higher and amounts to more than 700,000 families. Thus, even according to the methodology used by the responsible agency, the volume officially designated for social use is not sufficient. Practically, getting a forestry ticket is subject to significant competition and inevitably triggers illegal forestry usage by social sector.

One of the main reasons for the illegal harvesting of wood is the economic conditions in rural regions, where the population often lacks the necessary means to switch from the usage of timber as the main source of heat energy to other materials such as electricity, gas or others. Government's implicit tolerance of illegal use is therefore understandable to a degree. Over-use is also driven by wood handling and processes after cutting. Currently the energy efficiency of most fuel wood burnt in Georgia is low due to insufficient drying of wood before burning. This translates into a higher rate of usage of wood that is needed for a given output of heat/energy. Higher values tree species are also harvested for fuel when they should be reserved for other value-adding uses.

Note that there is also some evidence of over-utilisation of timber for commercial use although it is not suspected to be of the same magnitude as for social use (MENRP, 2016). Data to support conclusions is also more limited.

Looking to the future, it is difficult to arrive at an accurate estimate for sustainable harvesting of wood as the actual stock of Georgia's forest resources is not accurately known having not been estimated for more than 20 years. Nevertheless, estimates made by MENRP, NFA and CENN, indicate a sustainable level of 200,000 m^3 per year (MENRP, 2016). This level is more than ten times lower than current estimated use particularly for social purposes.

The need to continue to increase wood sales revenue, whilst ensuring that forest sustainable use and protection goals area achieved, is acknowledged by the NFA and supported by the legal provisions in the draft Forest Code. There is also a recognition that the urgency associated with having to show gains in revenue generation has been on the increase and is likely to intensify given budgetary constraints.

4.7.2 Objectives

The overall objective of this solution is to achieve the sustainable forest utilisation goals as well as increasing revenues from wood sales. Achieving this would be supported by the following:

1. Gradually increase the degree to which the NFA undertakes harvesting for social purposes. For example, in the last few years, the NFA has supplied schools and kindergartens. They have also undertaken some harvesting to provide construction materials for communities. These initiatives could be expanded to the point where eventually the majority or all of the wood harvesting for social purposes is undertaken by NFA itself or by the contracted entities. This would give them greater control over the harvesting and sale of wood. It would allow for more efficient practices such as ensuring that wood is adequately dried before distribution thereby decreasing the amount of wood that needs to be harvested per energy output.
2. Ensuring that only appropriate lower value tree species are cut for fuel and on the introduction of an auctioning system for the sale of wood for social purposes building on the existing auctioning system used for wood sold for commercial purposes.
3. Collaborating with the line ministries (MoESD, MoF, MoJ, MRDI) to find ways of providing cost-effective source of fuel to replace wood.

4.7.3 Next steps

The NFA will lead the process of implementing the solution. The Table below outlines a proposed implementation scenario focused on broad next steps:

Table 4-13: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Feasibility study to develop the optimal system of fuel wood management.	NFA; MEPA	NFA; MoF; Ministry of Justice; Local Municipalities; International Donor Organizations; NGOs	6 months
2. Consultations on relevant legal and institutional setup to facilitate changes envisaged by the NFA.	NFA; MEPA	NFA; MoF; Ministry of Justice; Local Municipalities; International Donor Organizations; NGOs	6 months

Step	Lead party	Key Stakeholders	Indicative timescale
3. Based on consultation results, draft respective legislative acts. Sharing the drafts with line ministries and other stakeholders and undertake final consultations.	NFA; MEPA	NFA; MoF; Ministry of Justice; Local Municipalities; International Donor Organizations; NGOs	9 months
4. Draft revision/Preparation of Final Document.	NFA; MEPA	NFA; MoF; Ministry of Justice; Local Municipalities; International Donor Organizations; NGOs	1 month
5. Adoption of respective amendments to legislation.	NFA; MEPA	NFA; Line ministries; Parliament of Georgia	3 months
6. Capacity building of NFA staff.	NFA; MEPA	NFA; MEPA	6 months
7. Implementation of new legislation and associated changes in NFA ways of working.	NFA; MEPA	NFA	Ongoing

Expected duration of the first 6 implementation steps is up to 30 months.

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Resistance among those harvesting wood for social purposes in particularly to the payment of higher fees for wood.
- The continuation of illegal cutting despite the NFA taking over the role of cutting and providing wood for social use.
- Challenges associated with the uptake of alternative fuel sources to replace wood.
- Capacity constraints in terms of protected area management capacity to implement own revenue options successfully.
- Ability to implement new and innovative systems such as online auctions.

4.7.4 Expected financial results

The expected financial gains for sustainable management of the forests as a result of this solution were estimated based on projecting wood sales revenues from previous years. For 2018 it was assumed that annual real growth in wood sales revenues would be 3% greater relative to the previous year's revenues gradually increasing to 12% greater than the previous year by 2027. This would progressively increase wood sales revenue in real terms from GEL 163,561 in 2018 to GEL 5.74 million by 2027. Additional cost were assumed to be equivalent to 30% of revenue resulting in cumulative undiscounted net financial gains of GEL 15.7 million over 10 years.

Aside from providing financial gains for the NFA, the solution should also help to reduce the cost of damages caused by illegal forest use. Although these avoided costs are not quantified here, they are likely to be substantial and may well exceed the quantified financial gains accruing to the NFA. Significant increase of tax revenue is also expected as a result of decrease in illegal sales and increase market formalization.

4.8 Improving ecotourism offerings in state forest areas

Forest areas provide a large range of opportunities for sustainable and nature based tourism which is rapidly expanding. The National Forest Agency (NFA) seeks to identify and develop ecotourism infrastructure and services at exceptional sites in the forest estate. This solution aims to enhance institutional capacity of the NFA for developing sustainable tourism products, to develop and capture appropriate revenues, and to direct such revenues back towards sustainable forest management. The impact of this solution will be an increase in ecotourism destinations and an increase in sustainable financing for forest ecosystems. The required steps include designation of a responsible party at the NFA to oversee this process, a study to identify high value tourist locations and potential products, design of investment plans for priority sites and projects, development of revenue strategy (concession plan, entrance fees, revenue sharing with local communities, etc.), engaging with banks and other finance institutions for financing of pilot sites, and scaling of programme.

The case for this finance solution

- Nature based tourism is undergoing rapid growth in the country. For example over the last five years the number of visitors to Protected Areas increased by 168% and their own revenues grew by GEL 4.1 million.
- Forests under National Forest Agency (NFA) cover around 40% of Georgia and include a large number of spectacular sites and opportunities for tourism development.
- Expanding NFA's institutional capacity to design and implement ecotourism programs will increase the ecotourism offerings of the country and allow the capture of substantial revenues.
- Establishing high quality forest based ecotourism sites and products will grow the county's tourism industry, increase employment, and generate sustainable financing for forest management.

4.8.1 Context

Section 4.7 has outlined current revenue from the sale of timber from state forest areas along with ways of increasing revenue from this source. Forest areas also provide a number of other products and services which have the potential to be converted into revenue streams.

State forest areas are often similar in nature to protected areas managed by APA. It therefore stands to reason that tourism and recreational uses and services could be developed in these forests with revenue generation potential. For example, hiking trails, mountain biking tracks, canoeing, picnicking, camping and other activities could be offered to visitors for a fee. Entrance fees could be charged for particularly attractive areas. Accommodation options could also be provided within forest areas potentially in partnership with the private sector. Currently, the NFA does not have a plan outlining specific forests which could have good attractions and activities on with revenue generation potential.

As discussed in more detail in Section 2.2.4, forests provide other significant ecosystem services aside from tourism and recreation.

The need to diversify and increase revenue generation, whilst ensuring that biodiversity protection is not compromised, is acknowledged by the NFA. They are at the early stages of exploring options in this regard and have, for example, been discussing options with the Georgian National Tourism Administration (GNTA).

4.8.2 Objectives

The overall objective of this solution is to diversify and increase revenues from forests thereby supplementing existing income from timber sales. Achieving this would be supported by the following:

1. Ensuring a better understanding of the nature of market opportunities associated with tourism and other ecosystem services. This should require more intensive investigation by the NFA and its partners. It is also likely to required selected technical inputs such as market studies to understand the potential of products and willingness to pay for them.
2. Investigating the best way forward given the specific characteristics of each forest area. Based on experiences with protected areas, revenue sources are likely to be relatively case specific for each individual forest area which may need their own business plans to augment management planning.
3. Collaborating with the GNTA, APA and other partners to find ways of maximising tourism use of forests and generating revenues from this use including developing tourism circuits.

4.8.3 Next steps

The NFA will lead the process of implementing the solution. The table below outlines a proposed implementation scenario focused on broad next steps:

Table 4-14: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Survey market opportunities associated with tourism and other ecosystem services including potential of products and willingness to pay for them.	NFA; MEPA	NFA; Line Ministries;, International Donor Organizations; local municipalities; NGOs	6 months
2. Identification of tourism destinations and outlining necessary infrastructural development for each destination based on experience of APA and GNTA.	NFA; MEPA	NFA; GNTA; APA; International donor organizations	8 months
3. Elaboration of business plans for development of priority tourism destinations.	NFA; MEPA	NFA; GNTA; APA; International donor organizations	8 months
4. Identify the financing sources necessary to initiate the implementation the business plans.	NFA; MEPA	NFA; GNTA; APA; International donor organizations	12 months
5. Piloting implementation of tourism business plans.	NFA; MEPA	NFA; GNTA; APA; International donor organizations	12 months

Expected duration of the implementation steps is up to 45 months.

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Ability to implement new and innovative options to diversify incomes.
- Budget constraints may hamper new initiatives that require capital investment and increased management costs.
- Overall Georgian tourism growth may be lower than expected due to external factors.

4.8.4 Expected financial results

It is challenging to approximate future financial gains from new tourism products and sites especially since the NFA has yet to conduct detailed assessments of options and their financial viability. It should be noted, that in 2017 APA's own revenue increased by 78% comparing to previous year and it has the possibility to increase further if better products are offered. International arrivals in Georgia have been growing rapidly over recent years. In 2017 Georgia reached a record number of 7.5 million (total number including transit and same-day visits) representing annual growth of 19%.

4.9 Building country capacity for fundraising for priority nature conservation and management objectives

Biodiversity conservation and sustainable management produces public goods and services that benefit society and are valued by a wide range of individuals, companies, and donors. As such, donations are an important source of financing for biodiversity and improving the level and targeting of donations can support achievement of conservation goals. This solution will build country capacity for fundraising that targets a) individuals through crowdfunding and other web-based tools, b) banks and other companies through Corporate Social Responsibility (CSR) programs, and c) these and other "classic" donors and international finance institutions (IFIs) through improved communication and fundraising skills in environmental organisations. The impact of this solution will be increased financial flows to conservation NGOs, government agencies, and other groups. Although this solution will evolve over time, initial actions include the following: develop a pilot program for the Tbilisi Zoo targeting individuals and corporate donors, creating an online donation platform of fundable projects based on NBSAP priorities, and train organizations for developing specific fundraising and PR campaigns for biodiversity conservation actions.

The case for this finance solution

- Voluntary contributions represent a potentially significant, but under-utilised, source of funding for biodiversity conservation.
- Advances in technology and social media offer opportunities for new, creative and low cost ways of collecting donations.
- Encouraging a culture of making donations should result in greater awareness translating into increased pressure on business and state decision-makers to act responsibly with respect to biodiversity conservation.

4.9.1 Context

The BIOFIN Biodiversity Expenditure Review provides details of donor spending on biodiversity conservation. With respect to private sector spending, it makes the distinction between:

1. Obligatory spending, for example, required for Environmental Impact Permits and License terms and conditions, and
2. Voluntary spending such as that spent via Corporate Social Responsibility (CSR) programme or similar initiatives.

For voluntary spending there are a few NGOs such as WWF, CENN, Nacres that take private donations to fund their biodiversity conservation activities. There are also two funds or mechanisms, to which donation can be made, which are focused on conservation:

- The Caucasus Nature Fund (CNF) which provides support and management assistance for protected areas and seeks to conserve the distinctive biodiversity of the Caucasus (Georgia, Armenia and Azerbaijan) while at the same time improving the lives of the

adjacent communities. The CNF has provided active support for the Agency of Protected Areas of Georgia since 2008.

- Treepex, a private company which mainly targets restoration of forest in Borjomi region destroyed during 2008 Russia-Georgia conflict. In 2017, Treepex launched an online donation platform (Aghadgine.ge or Restore.ge) with a campaign targeted at the general population and Georgian companies. By September 2017, donations totalling GEL 440,000 had been made which equates to enough funds to plant approximately 41,500 trees.

Despite these initiatives, voluntary contributions to biodiversity conservation by private individuals and companies are currently limited. However, the potential for greater contributions is significant particularly if creative ways can be found to channel finance into biodiversity. The Tbilisi Zoo is a good example of an institution that would like to increase their focus on the conservation of endemic animals. However, they require fund raising in order to expand their efforts in this regard.

4.9.2 Objectives

The objective of this solution is to increase to increase the capacity of target conservation institutions (state, municipal and other entities) to attract more financial contributions to biodiversity conservation by a) individuals b) banks and other companies and c) international donor organizations and IFIs. In particular, it aims to make it more attractive and easier for donors to make contributions to biodiversity. It would have the following elements or components:

1. Create a comprehensive "catalogue" for donors of fundable activities based on NBSAP priorities and specific actions. The menu could be used to get the attention of donor and to focus their efforts. For each project, it would include:
   a. A project description including key elements, objects and tasks to be executed.
   b. Budget estimates.
   c. An outline of benefits, how the project fits into the country's general biodiversity vision along with its wider impact on the economy and key sectors such as agriculture, etc.
   d. Potential benefits for donor
2. Increase capacity of target conservation institutions (state, municipal and other entities) to ensure effective communication with potential donors. This will also imply development of specific communication methods for each targeted group of potential donors.
3. Develop and pilot different fundraising mechanisms/ tools (such as creation of crowdfunding platform, conservation labelling etc);
4. Piloting innovative fundraising techniques in order to raise money for Tbilisi Zoo's conservation efforts. These would focus on a programme aimed at the re-introduction of endangered animals into their wild habitats (flagship species that are easier to breed should be given preference given their appeal and greater likelihood for success). Fundraising techniques could include a crowdfunding campaign which is promoted through social and conventional media. This could be combined with other measures, focused on tapping Corporate Social Responsibility (CSR) budgets, such as direct approaches to key corporates that should be interested in supporting conservation and could gain from the exposure associated with the sponsorship of the conservation of key endemic species . Such a pilot should provide key lessons for any future fundraising campaigns focused on conservation.

4.9.3 Next steps

As this solution is broad and long term, the plan is to begin with initial actions that will develop capacity and encourage additional efforts. The Tbilisi Zoo and MEPA will lead the process of pilot implementation of the the solution. The table below outlines a proposed implementation scenario focused on broad next steps.

Table 4-15: Proposed implementation steps, lead parties and timescales

Step	Lead party	Key Stakeholders	Indicative timescale
1. Analyse potential funding sources – a) individuals b) banks and other companies and c) international donor organizations and IFIs.	Tbilisi Zoo	MEPA; NGOs; community and business representatives	1 month
2. Identify and group target audiences according to their potential input and interest.	Tbilisi Zoo	MEPA; NGOs; community and business representatives	1 month
3. Prepare Sponsorship Packages for endangered/flagship species.	Tbilisi Zoo	MEPA; NGOs; community and business representatives	2 months
4. Draw up draft of fundraising plan (including communication plan).	Tbilisi Zoo	MEPA; NGOs; community and business representatives	1 months
5. Discuss draft plan with key stakeholders.	Tbilisi Zoo	MEPA; NGOs; community and business representatives	1 month
6. Launch the implementation of Fundraising Action Plan.	Tbilisi Zoo	MEPA; NGOs; community and business representatives	Ongoing
7. Prepare general guideline on fundraising activities based on lessons learned.	Tbilisi Zoo	MEPA; NGOs; community and business representatives	1 months
8. Review NBSAP priorities and create a comprehensive “catalogue” for fundable projects for donors.	MEPA	NGOs; community and business representatives	3 months

Step	Lead party	Key Stakeholders	Indicative timescale
9. Develop and test different fundraising mechanisms/tools based on the experience of Tbilisi Zoo case.	MEPA	NGOs; community and business representatives	4 months
10. Increase capacity of target conservation institutions (state, municipal and other entities) to ensure effective communication with potential donors.	MEPA	NGOs; community and business representatives	Ongoing

The following risks may affect the success of the solution and should continue to inform its further planning and implementation:

- Willingness of donors to contribute resources given the number of competing appeals for donations.
- Ability of project implementers to deliver successful projects using donor funding thereby build a record of success that would encourage further funding.
- Lack of buy-in and support from relevant government departments and other conservation actors.

4.9.4 Expected financial results

The expected financial gains from the solution were tentatively estimated based on projecting total current donations to biodiversity conservation by the private sector and individuals (i.e. approximately GEL 800,000). It was assumed that, if successful, the solution could generate an additional amount of GEL 400,000 within four years and sustain this level of revenue thereafter.

The additional cost of implementing the solution would be concentrated primarily in the first two years and would amount to approximately GEL 100,000 for fundraising strategy work, technical inputs and limited piloting. These revenue and cost assumptions result in cumulative net financial gains of GEL 2.1 million over the next 10 years.

5. CONCLUSIONS

The financial and other challenges facing biodiversity conservation in Georgia are clear and require urgent action. Fortunately, the country is in a position to ensure that ongoing wider biodiversity and environmental reforms are complimented by finance solutions that have the potential to unlock substantial resources for the biodiversity agenda. This Biodiversity Finance Plan adds to the existing efforts of the biodiversity sector and its partners by:

- Ensuring alignment with both biodiversity sector and wider socio-economic development planning;
- Taking a more comprehensive approach to biodiversity using both conventional and innovative finance solutions;
- Suggesting realistic next steps for each prioritized solution under an outcome oriented approach;
- Identifying synergies among the different players and solutions to establish an enabling environment for joint action and coordination.

An analysis of the priority finance solutions featured in this Plan estimated a cumulative net financial gain of GEL160 million over 10 years.

The Plan can be seen as a living document, intended to be owned and used by the biodiversity sector as a whole. It is a resource for the process of developing and encouraging biodiversity finance in Georgia, and may be updated as circumstances, needs and opportunities evolve. Implementation will require a coordinated effort from a group of government, civil society (NGOs), private and development partners. The bulk of the work implementing and monitoring of the Plan will be coordinated by MEPA using existing collaboration frameworks. It is, however, largely recognized that the commitment and financing by the public sector should increasingly be complemented with contributions from the private sector, foundations, donors, and NGOs.

The BIOFIN project itself currently has resources to continue until end 2018. Having completed the preparation and planning phase, the focus of the project has shifted to driving and support the implementation of the Biodiversity Finance Plan. Given the limited timeframe and budget of BIOFIN, a subset of finance solutions will be selected to be driven specifically by BIOFIN and receive BIOFIN funding. BIOFIN will also have an important role to play in coordinating and monitoring the implementation of the Biodiversity Finance Plan, and providing technical input as appropriate to finance solutions that are not directly driven by BIOFIN. As a project implemented by MEPA, it is envisaged that, the important programme of work undertaken by BIOFIN will be incorporated into MEPA's programme of work on an ongoing basis.

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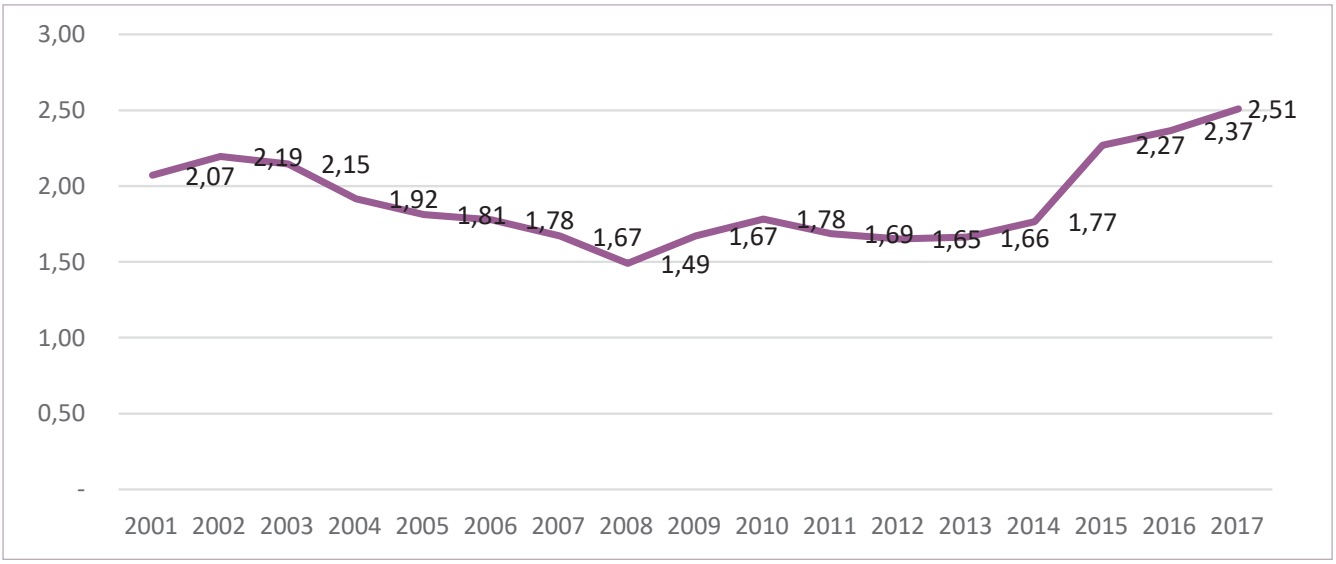
7. ANNEXES

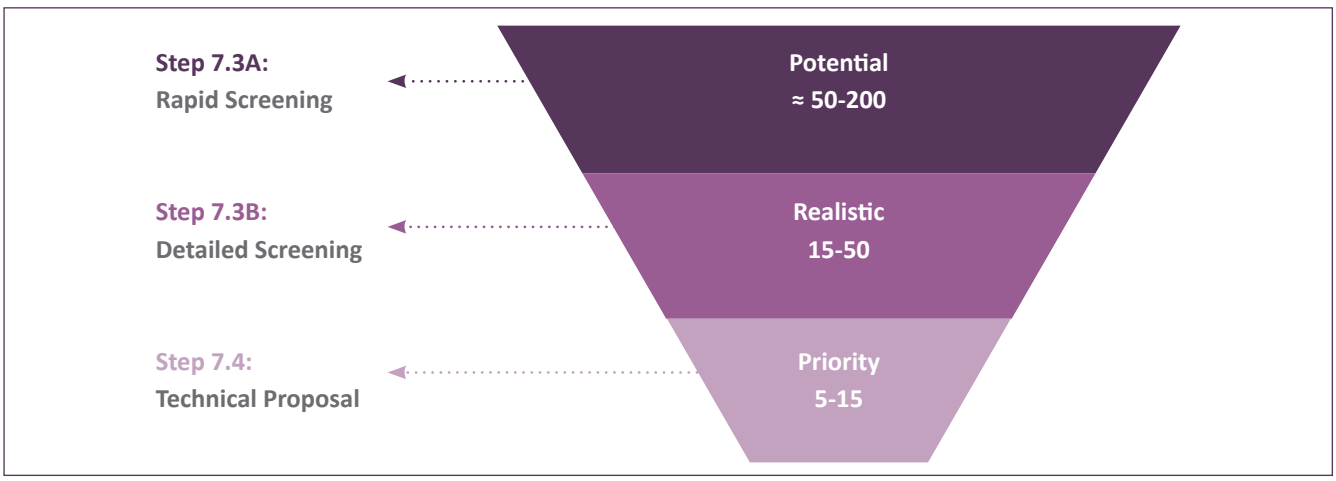
Annex 1: Average USD/GEL exchange rates (2001-2017)



Annex 2: Approach and outcomes of the prioritisation process for finance solutions

The broad approach used for the identification of priority financial solutions is outlined in the Figure below. To start with, an initial list of potential solutions was generated. This list was necessarily relatively long to ensure high levels of completeness. The initial list was then subjected to two rounds of screening to arrive at priority solutions.

Figure 7-1: BIOFIN screening steps to prioritise finance solutions



The identification of the initial list of potential solutions was a largely iterative process and was based on:

- A review of key documents and initiatives focused on biodiversity finance or with potential relevance in this regard.
- International sources for comparison including check-lists of finance solutions generated through the BIOFIN project.
- Inputs from experts and key stakeholders, the Steering Committee and Technical Reference Group.
- Internal discussion and debate within the BIOFIN team often drawing on the above.

This resulted in a relatively extensive list of 49 solutions briefly described in Table 7-1 at the end of this Annex. These potential solutions were then subjected to initial screening guided by scores, between 0 and 4, assigned to them for the following equally weighted criteria:

- Potential for biodiversity impact.
- Scale of financial opportunity.
- Political acceptability and likelihood of success.

Applying a hurdle score of 9 out of a possible maximum of 12 reduced the initial list of 49 potential solutions to 22 solutions considered more realistic. These were subjected to further feasibility assessment, inputs were again provided by the project Technical Reference Group, Steering Committee and stakeholders and a final round of screening using the following more detailed considerations was carried out based on the following questions:

Will the solution generate, leverage, save, or realign a large volume of resources?
Will the financing sources be stable and predictable?
Do the persons or entities paying have a willingness and ability to pay?
Are there significant financial risks? E.g. exchange rate, lack of investors, etc.
Are start-up costs onerous?
Does the solution address market failures?
Will the financing allocations remain targeted towards biodiversity over time?
Are there risks to biodiversity created by the solution? If yes, how challenging would it be to create adequate safeguards?
Will there be positive socio-economic impacts?
Is there significant risk of unintended negative social consequences?
Will the solution be viewed as equitable and will there be fair access to the solution?
Is the solution backed by political will?
Is there strong buy-in from key actors and stakeholders?
Do the managing actors have sufficient capacity to lead the process? Or can they rapidly acquire it?
Is the solution legally feasible? How challenging will the legal requirements be?
Is the solution coherent with existing mechanisms and institutional architecture, can synergies be achieved?

This resulted in the list of nine priority solutions shown below in Table 7-1 and at the beginning of Section 3.

Table 7-1: Initial list of potential finance solutions

Nr	Solution type	Name of solution	Description
1	Justification	Improved motivation / justification for increased MEPA budget with a focus on biodiversity	National budget allocations to the MEPA and its biodiversity conservation functions are low. This solution would focus on achieving increased funding from the national budget for these functions by providing better budget justification highlighting the ecosystem services and socio-economic value created or supported by biodiversity conservation. Components of this solution would include: 1. Training for MEPA staff on budget justification using ecosystem services valuation and other tools. 2. Assisting MEPA to go through the process of drawing up an improved budget justification with a particular focus on ecosystem services and associated socio-economic arguments. This justification can then be used as an example or template for future justifications. 3. Very limited Georgian research exists on ecosystem services assessment and valuation, conservation incentives and other topics with relevance to biodiversity finance. A research strategy could be developed among key stakeholders (MEPA, universities, research institutions, NGOs) to identify and agree on key research needs. This should facilitate greater focus and co-ordination while facilitating access to research funds which require policy-relevance. 4. Developing new user-friendly environment and biodiversity conservation strategy
2	Justification	Conduct a public media campaign to increase the biodiversity conservation awareness of Georgia's population.	Gain political support by creating a demand for better biodiversity protection among Georgia's citizens. Creating a powerful media based communication strategy to capture the attention of population, outlining the importance of biodiversity for their well-being and increase their concern with biodiversity.
3	Justification	Introduction of natural capital accounts (Green GDP)	Initiate a programme of work aimed at adjusting the national account so that they are more reflective of natural capital losses/gains. This would eventually allow for the estimation of Green national accounts and GDP for Georgia, taking into account the value of ecosystems and the negative externalities caused by business activities. Once established, such accounts, could impact on government decision making regarding natural resources including biodiversity.
4	PAs	Increasing own revenue from protected areas	Protected areas have the opportuntity to increase their own revenues through various means and are increasingly expected to do so. This solution focused on options for increasing own revenue including: 1. The review of existing park entrance fees and the introduciton of fees at more sites. Consideration of different fees for locals, Georgians and foreigners. 2. Introduction of new fees that are commonly charged in other protected areas systems such as for commercial photography/filming. 3. Review and revision of concession policies to attract increased private sector investment. 4. Increased effort to attract sponshorships and CSR funds. 5. Increased benefit sharing with local communities surrounding parks.
5	PAs	Fees for using national park names for labelling	Using the name of a national park as part of the label or marketing of a product can be a beneficial for sales (e.g. honey which is produced inside or in the vicinity of the park and is named after a national park). When the name of a PA is used in this way, there may be an opportunity for a small fee to be charged to producers (similar to a franchise fee)
6	PAs	Introduction of a new Trust Fund for PAs	Trust Funds can be used for collecting and dispersing donor contributions for the whole PA system or for individual PAs. It will be important to decide if it would be better to have one national Trust Fund that supports general biodiversity conservation including in PAs. Or, a separate Trust Fund specifically for PAs.
7	PAs	Own revenue retained by individual PAs / increased financial autonomy	Currently all the income generated by APA is accumulated into one common APA budget, and is centralized. This allows for cross-subsidisation of PAs that do not generate income and are not expected to generate income. There have been suggestions that individual PAs are allowed to keep more of the income they generate?

Nr	Solution type	Name of solution	Description
8	EIA, SEA, Offsets	Improvement of EIA quality and expertise through guidelines, checklists and training	This solution would aim to improve the quality of EIAs by focusing on three areas for improvement: 1. Georgian legislation on EIA provides only principles on how EIA processes should be conducted and on reporting. Biodiversity related issues need to be reflected more clearly and specifically and guidance provided. Different types of projects may require different sectoral guidelines (e.g. Roads, HPPs, Oil terminals etc). Guidance is also required on remediation activities specified in EIA that lack timeframes and cost estimates. 2. Generally, the EIA reports submitted to the MEPA are of poor quality. It is a challenge for the Ecological Expertise Committee at the ministry to review them and identify the "threats" and/or "challenges" specifically dealing with Biodiversity issues. Biodiversity checklist can be elaborated according to EU directives, allowing the committee members to assess the scope, scale and quality of biodiversity related measures and make justifiable recommendations. 3. Capacity building of the Department of Environmental Supervision is a critical issue. The staff is not equipped with the skills and knowledge necessary for effective inspection. There can be specific trainings on Biodiversity and ecosystem services and how to inspect these issues within the companies (e.g. to distinguish good practice measures and mitigation measures, that are usually not comprehended properly).
9	EIA, SEA, Offsets	Increasing and differentiating Environmental Impact Permit (EIP) fees as part of the EIA process	The current Environmental Impact Permit (EIP) fee to be paid by those applying for a permit is fixed – 500 GEL for any type of activity requiring the preparation of an EIA regardless of how simple or complex. The fee could be differentiated and increased to better reflect complexity and administrative costs that MEPA must incur to process different types of permit applications thereby increasing fairness and cost recovery. It will then be important that the revenues raised are, at least primarily, used the execution of EIA activities by the MEPA – solutions below deal with options for this to be possible.
10	EIA, SEA, Offsets	Adjusting EIA fine amounts so that they are proportional to violations and remediation activities not implemented	Currently, according to the legislation, the DES can fine the EIP permit holders one fixed amount for all violations of EIP conditions regardless of how many conditions were violated and the severity of the violations. This results in potentially too low (or high) fines that are not reflective of the proportionality principle generally accepted as a good guiding principle for determining appropriates fine amounts. Fines formulation could, for example, be changed to be more proportional to the cost or number of the remediation actions not carried out while bearing in mind that the draft Environmental Liability Law (ELL) is the appropriate law for ensuring that damages are remediated or compensated for. Currently the draft ELL deals only with significant damages but it is undergoing a revision in which it will be extended to include lesser damage.
11	EIA, SEA, Offsets	Recovering the increased cost of EIAs for MEPA through permit fee revenue retention via a separate account	Currently there is a Permitting Department at the MEPA responsible for the EIA review. After the new EAC is enacted, the obligations of this Department will increase significantly (e.g. the department shall conduct the public hearings of the EIA at its own expense) and it will require more human and financial resources. The Department could be allowed to retain all or a portion of permit fee revenue, and potentially also fine revenues, through the establishment of a separate account for it with the agreement of the MENPR and with the permission of the Ministry of Finance.
12	EIA, SEA, Offsets	Introduction of biodiversity offsets provisions in EIA	Biodiversity offsets can be implemented in EIA as the last option in the mitigation hierarchy (i.e. when damage to, or loss of, important biodiversity cannot be avoided or mitigated then as a last option, offsets can be considered as a form of compensation). They have advantages over damage compensation payments for biodiversity as they directly ensure that biodiversity is conserved in an alternative location. This would be in keeping with the spirit of the draft ELL which calls for the avoidance of monetary damage compensation payments if at all possible and prefers 'substitutive' measures. For it to succeed, biodiversity offset policy has to be closely integrated within EIA policy and process. Even if offsets are seen as more of a medium term instrument, it makes sense to ensure that offsets policy goes hand in hand with EIA policy from the very beginning.

Nr	Solution type	Name of solution	Description
13	EIA, SEA, Offsets	Complete and apply lessons of power sector plan strategic Environmental Assessment (SEA)	The Ministry of Energy is currently conducting a relative high-level SEA as part of their overall sector plan for power generation in the country. Hopefully the SEA will address concerns that have been raised about the lack of environmental and biodiversity considerations in current planning for HPPs. The SEA should provide lessons that can be applied in other SEAs that are likely to be needed.
14	EIA, SEA, Offsets	Introduction of a training course in Environmental/Biodiversity management	Private companies holding licences on utilization of natural resources and/or Environmental Impact Permits (EIPs) are commonly not fully aware about the obligations they have to implement according to license/ permit conditions. Only large companies can afford having environmental manager separately. Special course can be introduced at the EIEC to train environmental managers with the focus on environmental licences and permits, biodiversity and ecosystem services, mitigation measures, good practices, elaboration of EIA reports, legal requirements etc.
15	EIA, SEA, Offsets	Environmental/Biodiversity manager mandatory for the companies holding EIPs and licences on utilization of natural resources	Companies holding EIPs and licences on utilization of natural resources are not legally required to employ environmental/biodiversity managers. The new legislation can make it binding to have environmental manager, responsible for fulfilling obligations under licenses/permits, to manage the relevant elaboration and submission of EIA reports and other related docs, deal with state environmental bodies, ensure implementation of contemporary mitigation measures etc. Along similar lines, Georgian companies have recently become legally obligated to appoint waste managers.
16	EIA, SEA, Offsets	Recovering the increased cost of EIAs for the MEPA by creating a separate agency for EIA	Currently there is a Permitting Department at the MEPA responsible for the EIA review. After the new EIA Code is enacted, the obligations of this Department will increase significantly (e.g. the department shall conduct the public hearings of the EIA at its own expense) and it will require more human and financial resources . If a new semi-autonomous EIA Agency was established, it could generate and retain permit fee revenue and be in a better position to cover the increased costs associated the MEPA`s EIA activities such as review and public participation.
17	EIA, SEA, Offsets	Recovering the increased cost of EIAs for MEPA by motivating for increased state budget allocations for the EIA department	Currently there is a Permitting Department at the MEPA responsible for the EIA review. After the new EIA Code is enacted, the obligations of this Department will increase significantly (e.g. the department shall conduct the public hearings of the EIA at its own expense) and it will require more human and financial resources. If some form of revenue retention is not allowed then the Department will have to be funded from the general state budget requiring a motivation for this budget allocation.
18	EIA, SEA, Offsets	Introduction of financial security mechanism to ensure funds are available for remediation actions	Currently there is no effective mechanism to ensure the implementation of EIP conditions by permit holders in Georgia. In order to guarantee proper implementation, permit holders and others with high risks can be required to get insurance or set aside enough funds for remediation (e.g. Bank Guarantee or Bond). If the permit holders complete the remediation conditions satisfactorily then they can be released from their guarantees. If not, the state can use these funds to carry out remediation. The existing practice with HPP projects serves as an example. Typically, the government of Georgia requires a Bank guarantee from the HPP investor in the amount of 170,000 GEL (70,000 USD) per 1 MW of installed capacity to secure the construction of the plant according to the approved project.
19	EIA, SEA, Offsets	EIA and biodiversity standards for project financing	Banks and other funders of projects are encouraged to agree to environmental sustainability and biodiversity standards or safeguards. These should increase demand for properly executed EIAs at a minimum. Examples include the Equator Principles, IFC

Nr	Solution type	Name of solution	Description
20	Damage comp, fines, fees	Environmental and biodiversity damage remediation and/or compensation system reform	A new Environmental Liability Law (ELL) dealing with biodiversity and other environmental damage remediation and/or compensation is in draft form and needs further work before it can be finalised. The draft ELL would essentially focus on situations where significant damages occur and would compel those responsible for them to remediate them. In exceptional circumstances, where remediation is clearly not possible at all, payment of monetary damage compensation to the state will be allowed. These compensation amounts would be based on Regulations specifying how to calculate damages imposed on the environment including the appropriate inclusion of biodiversity damages. Payments made to the state would be deposited in a special remediation fund/ account and used exclusively to undertaking remediation (as opposed to the current situation where this does not necessarily happen).
21	Damage comp, fines, fees	Provision of training on the ELL to MEPA staff	The supporting documents to the draft ELL notes that the implementation of the ELL requires intensive training of competent staff and measures for awareness raising. They suggest that this shall be funded by international donors and support has been / will be requested.
22	Damage comp, fines, fees	Reform of fines for non-EIA related violations	Fines for non-compliance with EIA laws are dealt with under a separate solution. Non-EIA fines such as those for poaching, illegal wildlife trade, pollution events could also be reviewed and adjusted in order to act as a better deterrent while also raising revenue. Bear in mind that the ELL is intended to deal with damages situations.
23	Damage comp, fines, fees	Ensure that the MEPA (specifically the Department of Environmental Supervision) retains an appropriate portion of damage compensation payments (and fine income?) to cover their increased costs	Increasing revenue from damage compensation payments and fines is less useful for biodiversity if the increases do not also result in increases for the MEPA and the Department of Environmental Supervision (DES) in particular. Part of the revenue generated need to be retained. The Department could be allowed to retain all or a portion of fine revenues and a portion of damage compensation payments revenue through the establishment of a separate account for it with the agreement of the MENPR and with the permission of the Ministry of Finance.
24	Damage comp, fines, fees	Review, updating and adjustment of existing natural resource use fees	In some cases natural resource usage fees have not been adjusted for inflation and have become inappropriate for other reasons. This leads to low revenues and higher probability of over-use. Policy and legislative reform is therefore required based on a review which would lead to the adjustment of fees in some cases. A process for more regular updating can also be considered. Note that changes to usage fees would also impact on damage compensation payment as the two are linked. The introduction of new usage fees for non-timber forest products is also a potential solution and is among the solutions under the forestry sector.
25	Donor, CSR	Creating a new Trust Fund to channel funds from private sector and donors into biodiversity	Introduction of a new trust fund, targeting biodiversity conservation projects in and outside protected area, lead by an NGO(s) in partnership with government. Using the fund as a mechanism to attract funding from private sector through donations or CSR. Fund might be able to use the donor "menu" to approach donors as well.
26	Donor, CSR	Creating a project "menu" for donors and the private sector (inc. CSR & crowd funding)	Creating a list of projects based on NBSAP actions. Providing detailed budget estimate for each action and outlining positive results of the action. Putting the action into the context of country's general biodiversity vision. Providing details on the impact of the project not only on biodiversity but on other sectors, such as economy, agriculture, etc. Using the list as a "menu" for donors to get their attention and provide increased funding.
27	Donor, CSR	Creating a clearing house mechanism	Create an overall vision on activities and projects implemented by different actors in biodiversity and environmental protection sectors. Use the tool as a mechanism for enhancing stakeholder coordination among each other, eliminating duplication of efforts and enabling data sharing.

Nr	Solution type	Name of solution	Description
28	Donor, CSR	Pursuing global climate change funds for projects with biodiversity co-benefits	Climate change funds such as the Green Climate Fund (GCF) and Adaptation Fund aim to provide financial support for climate mitigation and adaptation projects, facilitating low-carbon and climate resilient development. There is an opportunity, being pursued by the MEPA (confirm, for e.g., that a MEPA application to the GCF is in process) to secure greater climate change funds for Georgia. To the extent possible, funding applications should propose mitigation and adaptation project that are also to the benefit of biodiversity (e.g. forest restoration projects or project to combat land degradation).
29	Donor, CSR	Expansion of the existing Caucuses Nature Fund (CNF)	Expanding the mandate and the scope of the CNF to serve as the fund outlined in the previous solution.
30	Forests	Ensuring more efficient use of fuel wood through co-ordinated cutting and drying	Currently the energy efficiency of fuel wood burnt in Georgia is low due to insufficient drying of wood before burning. This translates into a higher rate of usage of wood that is needed for a given output of heat/energy with an estimated 2.5 mln m3 of addition wood used annually, most of it through illegal logging. NFA has plans to chop down the wood themselves in advance and to ensure that the wood is dry enough before further distribution. The increased efficiency could translate into lower rates of illegal logging and overall decrease in the amount of used wood. The NFA could also ensure that only appropriate species are cut for fuel and not species that have higher value economic uses.
31	Forests	Increasing NFA revenue from wood sales	Revenue from wood sales are currently low relative to market values and not particularly well differentiated between higher and lower economics uses. This results in lower revenues and over-use including among those cutting wood for household purposes (i.e. social cutting). Allowing the NFA to sell wood at market prices could therefore bring significant revenue into the budget, while decreasing the incentives for illegal logging. The Forest Code aims to address this challenge by allowing the NFA to sell wood primarily through auctions (online). Increased revenues could also allow the NFA, in partnership with the Ministry of Energy, to assist community users in switching to other more efficient non-timber energy sources.
32	Forests	Diversifying and increasing NFA revenues through fees for non-timber forests products, tourism and recreation	Fees for commercial harvesting of non-timber forest products such as berries, mushrooms could provide revenues while playing a role in limiting over-harvesting. Such fees are not in place currently and are being considered for gradual introduction. Further work is needed in this regard – for e.g. in the form of market studies, etc. There may also be opportunities to generate revenue from ecosystem services provision (e.g. watershed services, carbon sequestration) at some point. Forest areas have significant potential for greater tourism and recreational use. The NFA is in the relatively early stages of evaluating and planning for the generation of revenue streams from tourism and recreation on forest land to augment revenue from timber.
33	Forests	Expansion of existing forest restoration programme (operated by Treepex)	Increase funds for and expand the Borjomi forest restoration fund. The campaign is planned and executed by Business Information Agency (BIA), start up Treepex and National Forestry Agency of Georgia.
34	Water	Voluntary water PES scheme investigated further and piloted	Such a scheme would require a thorough feasibility assessment. It could target hydropower companies, municipalities or mineral water companies that benefit from watershed services. Beneficiaries would essentially need to be willing and able to pay for watershed protection mostly in the form of land management in the watersheds where they get their water from.
35	Tourism	National eco-tourism fee introduced	Tourism levies or fees are fairly common internationally. They are often collected for the government by accommodation establishments per bed night sold or can be collected at airports on arrival/departure. The revenue can then be re-invested in tourism marketing and for investment in tourism infrastructure such as PAs and other important biodiversity areas that can become attractions.

Nr	Solution type	Name of solution	Description
36	Tourism	Local eco-tourism fees introduced	A similar concept to national fees but only charged to tourists visiting specific areas that require high levels of conservation effort. The fees can be collected by accommodation establishments and by other tourism services providers such as tour companies. If they are introduced by local or regional governments then fees go these institutions for use on eco-tourism projects. Tusheti may be an example of area where this may work and could be investigated further
37	Eco-labeling	Establish new eco-labels for key agricultural products	The EIEC has shown some interest in eco-labelling of agricultural products. There may be sub-sectors such as wine making that would be interested in introducing an eco-label
38	Eco-labeling	Establish standards for eco-labelling	The EIEC has shown some interest in eco-labelling of agricultural products. There may be an opportunity, the ministry of agriculture and private sector partners, to develop generally standards for all eco-labels thereby assisting to improve the sustainability of agricultural production.
39	Eco-labeling	Encourage or incentivise forestry companies to become FSC (Forestry Sustainability Council?) certified	FSC certification should result in biodiversity benefits to some degree but is limited or non-existent among Georgian forestry companies. In other countries, market forces have ultimately driven certification (i.e. customers demand it and/or are willing to pay a premium for it) but this has probably been assisted mostly by NGO pressure. There may be an opportunity for similar pressure to achieve results in Georgia.
40	NBSAP	Additional NBSAP-focused employee in the ministry	Currently impetus for the implementation of NBSAP is limited. Introducing new position, with a sole role to ensure NBSAP completion could serve as a driving force in better completion.
41	NBSAP	New bonus scheme for MEPA	Introducing new bonus scheme for employees of MEPA, or the part of the staff, tied to the completion rate of NBSAP activities. Direct monetary incentive to complete NBSAP actions could ensure better implementation rate.
42	NBSAP	Improvement of NBSAP quality	Introducing specific indicators for each action under NBSAP, enabling to measure whether the action was completed. Introducing estimates of a cost of implementing the specific action. Directly outlining positive consequences of implementing actions, etc.
43	NBSAP	Designation of responsible unit to track NBSAP implementation rate	Designating a responsible unit in MEPA to track NBSAP completion rate might bolster the perceived importance of NBSAP document for the stakeholders and ensure better completion rates.
44	Mining, Energy	Bank guarantees/bonds for unexpected mine closure	Mining license holders are obligated to remediate the operations site after operations end. Notwithstanding this legal obligation, in many countries where mining is prominent, the state has been burdened with the cost of remediating mines that are abandoned by their owners who may go bankrupt, for example. The state then obligates miners to set funds aside or put financial guarantees in place that can be used by the state to rehabilitate mines if they are abandoned.
45	Mining, Energy	Energy demand reduction	Energy supply projects, and hydro-power projects in particular, can have significant impacts on biodiversity. Reducing energy demand should therefore decrease the need for building these projects with benefits for biodiversity while resulting in financial cost savings. The best way to reduce demand is generally programmatic and involves a number of measures, incentives and awareness creation. Energy subsidy reform may be among these as subsidies often come at a significant cost to the government and contribute to high levels of energy consumption per capita.
46	Agric, hunting	Reform of the national pasture management system, establishment of competent authority and providing sustainable use incentives and/or fees.	No carrying capacities for pastures are currently set which increases the chances of over-exploitation when combined with the lack of a competent authority to enforce sustainable use. Setting up norms for the achievement of sustainable carrying capacities and the introduction of proper leasing system, which sets limits on livestock numbers, abolishes the subleasing system and may also involve fees, should ensure improvements in sustainable use, biodiversity protection while providing economic benefit to the state.

Nr	Solution type	Name of solution	Description
47	Agric, hunting	Integrate environmental and biodiversity conservation principles and requirements into government agricultural support programmes	Agricultural support programmes provide an opportunity for the state to increase the awareness of farmers regarding biodiversity conservation. This can be done through ensuring that initiatives like agricultural training programmes have a component on best practice in sustainable, biodiversity friendly farming. Agricultural loans or subsidies can also be made conditional on the implementation of sustainable farming practices.
48	Agric, hunting	Changes in the legislation to promote sustainable utilisation of rare and endangered species	Legal reform is required. Hunting nurseries increase the population of rare and endangered species – After certain population number is reached, they have right to offer the hunting on certain percentage of total population as a service.
49	Waste	Establishing Solid Waste Management cost recovery fees	A new Code for waste management was recently introduced. However, most towns do not charge for waste collection with exception of Tbilisi. Introduction of fees in other areas should help to fund waste management with benefits for the environment generally and some benefit for biodiversity

This project is co-funded by the European Union

Supported by:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

based on a decision of the German Bundestag

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